

SOS
SMART GUIDES
www.sos-smartguides.com

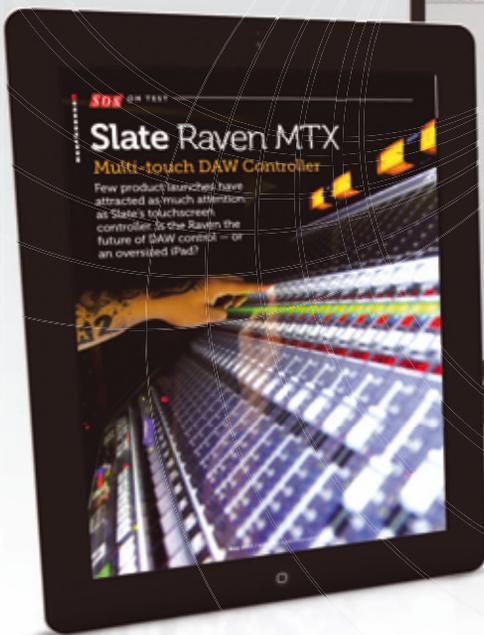
MICROPHONES

PRODUCTS & PRACTICE

FROM THE PUBLISHERS OF

SOUND ON SOUND

The World's Best Recording Technology Magazine



WWW.SOUNDONSOUND.COM

MICROPHONES



PRODUCTS & PRACTICE

FROM THE PUBLISHERS OF *SOUND ON SOUND*

Comprehensive Buyers Guide

PLUS

CHOOSING MICROPHONES: GET THE RIGHT MODEL FOR EVERY SOURCE

HOW TO INTERPRET MANUFACTURERS' SPECIFICATION DATA

THE DIFFERENT TYPES OF MICROPHONE AND HOW THEY WORK

GOOD PRACTICE IN RIGGING AND CARING FOR MICROPHONES

AND MORE!

INCLUDES:

free access to Alan Parsons microphone tutorial video!



A photograph of two Shure KSM microphones mounted on stands in a recording studio. The microphones are silver and have a distinctive spider-like shock mount. They are positioned vertically, one above the other. The background is a warm, dimly lit studio with wooden paneling and a cello visible in the lower left. The lighting is soft and focused on the microphones.

THE UTTERLY GLORIOUS FUSION OF TECHNOLOGY AND ARTISTRY.

SHURE KSM MICROPHONES Exquisite craftsmanship and exceptional engineering that sets a new standard of clarity and control. Ultra-sensitive, with extremely low self-noise and superior handling of high sound pressure levels. Pure audio mastery. Period.

www.shure.com/americas

© 2013 Shure Incorporated

SHURE[®]
LEGENDARY
PERFORMANCE[™]

OF MICS AND MEN

Here at *Sound On Sound*, we answer a lot of phone calls from our readers asking for advice or help with choosing equipment. The answer isn't always straightforward, however, as different users have different requirements. The most impressive technical specifications you can find within a certain budget may not equate to the best subjective sound quality, so it's very difficult to give specific recommendations. This is never truer than when choosing microphones.

Today there are literally dozens of different models of microphone at every price point on the market, all claiming to sound great. In truth, very few of them are actually bad, and assuming the standard of engineering is adequate to give long-term reliability, the most important thing is the way the tonal character of the mic combines with what you are recording, in order to produce a result that is artistically gratifying.

A couple of years back, *Sound On Sound* did a large-scale 'blind test', in which four singers were recorded using around 16 different mics, ranging in price from under \$150 to over \$3000 (see www.soundonsound.com/sos/jul10/articles/vocalmics.htm). We found that, for some of the voices, the cheaper mics were voted as

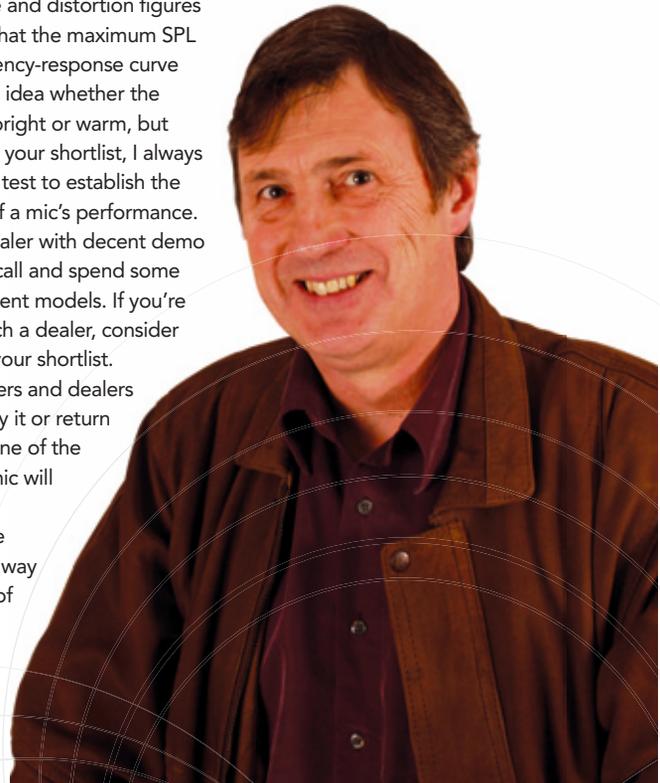
sounding best, while for others the more costly models won out.

A mic's paper specs are useful in telling you how low the noise and distortion figures are, for example, or what the maximum SPL is. Likewise, the frequency-response curve will give you a general idea whether the mic is likely to sound bright or warm, but once you've drawn up your shortlist, I always recommend a real-life test to establish the more subtle aspects of a mic's performance.

If you can find a dealer with decent demo facilities, give them a call and spend some time auditioning different models. If you're not within reach of such a dealer, consider hiring the models on your shortlist. Some mic manufacturers and dealers even offer a limited 'try it or return it period', and this is one of the best ways to see if a mic will work for you.

We hope this guide helps you to find your way around the hundreds of microphones that are currently available!

Paul White
Editor-In-Chief
Sound On Sound



Editorial

sos.feedback@soundonsound.com

Written by

Hugh Robjohns
Paul White

Additional Material by

Chris Korff
Dave Lockwood

Guide data compiled by

Nell McLeod

Production Editor

Nell McLeod

Circulation

subscribe@soundonsound.com
www.soundonsound.com/subs

Circulation Manager Luci Smith
Circulation Administrator Lisa Pope

Advertising

paul.dacruz@soundonsound.com

Advertising Manager Paul DaCruz
Tel: 707 537 7769

Marketing

marketing@soundonsound.com

Publisher Andy Brookes
Business Development Manager
Nick Humbert

Production

graphics@soundonsound.com

Production Manager Michael Groves
Designers George Nicholson Hart,
Alan Edwards

Administration

admin@soundonsound.com

Chairman Ian Gilby
Managing Director Dave Lockwood
Finance Manager Keith Werthmann

Online

support@soundonsound.com

New Media Director Paul Gilby
Assistant Web Editor Ellis Sutehall
Design Andy Baldwin

www.sos-smartguides.com

www.soundonsound.com

www.twitter.com/sospublications

www.facebook.com/sospublications

SOUND ON SOUND

Media House,
Trafalgar Way, Bar Hill,
Cambridge
CB23 8SQ, UK

T +44 (0)1954 789888.

F +44 (0)1954 789895.

sos@soundonsound.com

www.soundonsound.com



ISSN 2045-5070

**A Member of the
SOS Publications Group**

The contents of this publication are subject to worldwide copyright protection and reproduction in whole or part, whether mechanical or electronic, is expressly forbidden without the prior written consent of the Publisher. Great care is taken to ensure accuracy in the preparation of this publication but neither *Sound On Sound* Limited nor the Editor can be held responsible for its contents. The views expressed are those of the contributors and not necessarily those of the Publisher or Editor. The Publisher accepts no responsibility for the return of unsolicited manuscripts, photographs, or artwork.

© Copyright 2013 *Sound On Sound* Limited. Incorporating *Music Software* magazine, *Recording Musician* magazine, *Sound On Stage* magazine, *SPL* magazine, *Sound Pro* magazine and *Performing Musician* magazine. All rights reserved.

All prices include VAT unless otherwise stated. *SOS* recognises all trademarks.

Building Your Mic Locker

15 Mics Everyone Should Know About



Every day, new customers come to Sweetwater looking for the perfect do-it-all mic. Although there is no one mic that's perfect for every situation, there are several that you can use for many different sources. And you don't have to spend a fortune to build a solid mic locker. Here are some of the most popular and useful microphones available today.



SHURE
SM57

Shure SM57/SM58

Two Truly Legendary Dynamic Microphones — The Shure SM57 and SM58 are two of the most popular and versatile microphones of all time. They're inexpensive and virtually indestructible, and they sound great on just about anything. Adding one or two of each to your mic locker right away is money well spent.

Sennheiser MD 421 II

This Dynamic Mic Is Perfect for Toms, Bass Cabinets, and More — You'll find this mic poised over toms in pro studios everywhere. It fits into the tight space above the toms, but it won't pick up too much bleed from the cymbals. It's also superb at capturing the impact of bass cabinets, the growl of guitar amps, and the resonance of male vocals.

Audio-Technica AT2035

An Affordable Large-diaphragm Condenser Mic That's Great for Vocals — The surprisingly affordable AT2035 gives you the kind of gently flattering performance you'd expect from a far more expensive large-diaphragm condenser mic. An impressive 148dB maximum sound pressure level also makes it a great choice for guitar cabinets.

Neumann TLM 103

Neumann Quality, Affordable Price — The TLM 103 is an exceptional microphone, known for its incredibly low self-noise. It uses the same capsule as Neumann's legendary U 87, which provides delightfully smooth characteristics. This smoothness is great for vocals and guitar cabinets, and for mellowing out cymbals.

Blue Microphones Bottle

Blue's Incredibly Versatile Flagship Tube Condenser Mic — Thanks to interchangeable capsules that let you take full advantage of an array of polar patterns, the Bottle is ready for anything in the studio. This distinctive mic gives you the classic warmth you're looking for — plus an incredible degree of flexibility. It's nearly a complete mic locker in itself!

Polar Patterns



Cardioid

This is the most common polar pattern; it picks up sound only from the front

and blocks everything else out. That makes it perfect for isolating individual instruments or vocals. When in doubt, use a cardioid mic.



Supercardioid

This is a tighter version of the cardioid pattern. It gives you laser-line

isolation in front, blocking out almost all sound from the sides. It's great for drums, as you can isolate a single drum without picking up bleed from the rest of the kit.



Figure-8

This pattern picks up sound from both the front and the rear of the mic, and nothing at all from the sides. That

makes it great for recording two sources at once, such as an acoustic guitar and vocals.



Omnidirectional

This pattern picks up sound from all directions, making

it the perfect pattern for recording room ambience. It also handles low frequencies better than any other pattern, so it's great for kick drums and bass cabinets.

Find your perfect
microphone online!

Go to

Sweetwater.com



Bock Audio 195

Practically Two Mics in One Premium FET Condenser — You can use Bock Audio's 195 on everything from airy vocals to pummeling drums! This premium large-diaphragm FET condenser gives you "fat" and "norm" modes plus a low-cut switch, so you can tailor bass response. A variable pad lets you use the 195 in even high-SPL situations.

sE Electronics sE2200a II C

A Workhorse Mic That's at Home in Any Studio — An onboard highpass filter and a switchable 10dB pad help make the sE2200a II C a genuine workhorse microphone, that's good for everything from vocals to violins. Having this cardioid condenser in your locker will ensure that you always have a microphone for any occasion.

AKG C 414 XL II

Legendary Multi-pattern Studio Powerhouse — This modern take on the classic C 414 gives you an astounding nine polar patterns, multiple pads, and selectable highpass filter options. The result? A world-class large-diaphragm condenser mic that works extremely well on a wide variety of sources.

Telefunken CU-29 Copperhead

Put a Premium Tube Condenser Mic in Your Studio — The CU-29 Copperhead's genuine NOS Telefunken tube, Lundahl output transformer, and other top-drawer parts give this mic an open-sounding and sonically pleasing response. Want an affordable go-to mic for everything from vocals to drums? Here it is!

Royer R-121

This Modern Ribbon Mic Lets You Capture Guitar Amps the Way You Hear Them — The Royer R-121 ribbon mic "hears" pretty much the way your ears do. So, if you want to capture your guitar's tone the way it sounds when you're standing in front of your amp, the R-121 is the perfect mic for the job. It's also a stellar vocal mic.

Mojave Audio MA-200

Warm Up Your Vocals with This Incredibly Popular Tube Mic — The magnificently warm and rich-sounding tone of the MA-200 has made it a popular vocal mic. For a mic that will absolutely flatter vocals across the entire spectrum, this amazing tube microphone is absolutely worth saving up for.

MANLEY Reference Cardioid Microphone

Warmth plus Clarity, from a Top-shelf Tube Mic — When you demand uncompromising performance from your studio gear, start with this cardioid condenser mic. The Reference Cardioid Microphone gives you open, rich sound on everything from vocals to drums to guitars — and beyond.

RØDE NT5

This Matched Pair Gives You Performance and Affordability — For the cost of a single typical condenser, you can get a carefully matched pair of small-diaphragm NT5s. These amazing mics give you incredibly natural response, and they work well on several different sound sources.

AEA R84

Transparent Tone Makes This Ribbon Mic Incredibly Flexible — Completely transparent and highly detailed, the AEA R84 delivers vintage ribbon sound. It's based on classic ribbon mic designs and even features the same ribbon material used in the original RCA 44 series microphones.

Electro Voice RE20

You'll Find This Classic Dynamic Mic in Any Broadcast or Voice-over House — The RE20 is responsible for the larger-than-life, bass-heavy male broadcast voice that is now the standard of voice-over-style sound. It's also the secret weapon for miking kick drums and bass cabinets in many successful recording houses.

For more information about these and other wonderful microphones everyone should know about, give us a call. Your Sweetwater Sales Engineer will help find the perfect mics for you.



MANLEY
Reference
Cardioid
Microphone

AKG
C 414 XLII

**Get connected with the mics
that fit your needs!**

CALL US TODAY AT

(800) 222-4700

Sweetwater

Music Instruments & Pro Audio





SMART GUIDES
www.sos-smartguides.com

CONTENTS

FEATURES

Microphone Types & How They Work **8**

Not all mics work in the same way. In fact, there are several, significantly different, basic microphone types, and it helps to know what's going on inside each of them...

Choosing The Right Microphone For The Job **14**

There's no such thing as a one-size-fits-all mic, so how do you choose what's best for you?

Rigging, Connecting & Caring For Your Microphones **18**

Looking after your mics effectively and knowing how to rig them properly should ensure that you see years of trouble-free usage from your collection...

An Introduction To Stereo Mic Arrays **24**

Finding the right mics for your needs will set you on your way to making great recordings, but expanding your collection to include at least one pair will open up all kinds of stereo possibilities...

Understanding Microphone Preamps **28**

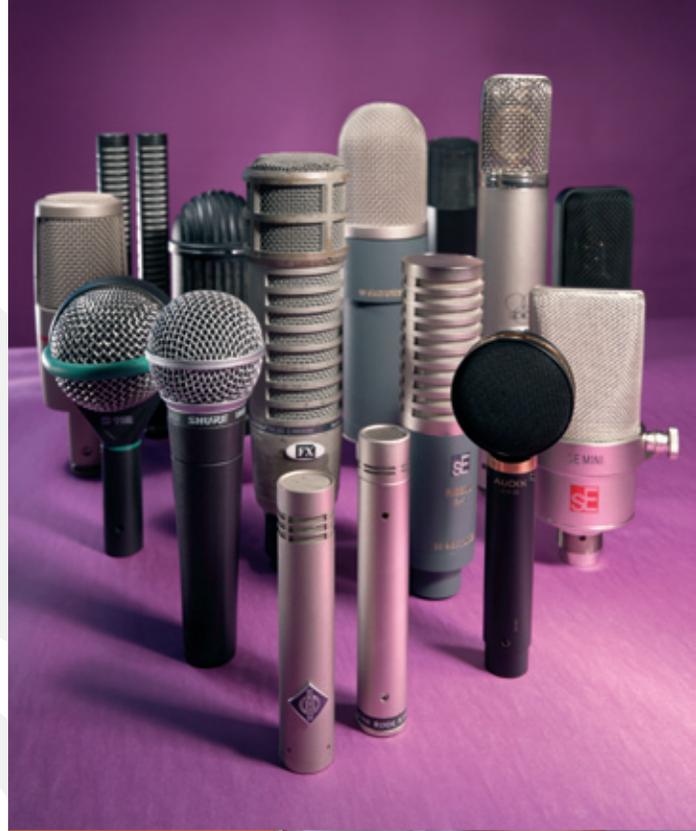
The best microphone in the world is useless without a way to transfer its signal to your recording system. Welcome to the wonderful world of the mic preamp...

Understanding Product Specifications **32**

There's a load of information on every model in this guide, but what does it actually tell you about how the microphone is likely to perform?

Glossary **176**

Baffled by any of the terms you've come across in the editorial features or the product listings? Find a plain-language explanation here!





BUYERS GUIDE

Dynamic Microphones 34

Dynamic, moving-coil designs are favoured on stage for their robustness, and for less wideband sources, such as close-miked drums and instrument amplifiers, in the studio.

Large-diaphragm Capacitor Mics 50

The workhorse studio microphone, offering high sensitivity and extended frequency response, often combined with a degree of 'character'. The all-time favourite for studio vocals.

Small-diaphragm Capacitor Mics 88

The smaller format permits an even more accurate frequency response and controlled directivity. Favoured for acoustic instruments and all extended response, fast-transient sources.

Ribbon Microphones 118

Famed for their 'silky' top-end response, ribbon mics are ideal for sources that might sound harsh when recorded with a capacitor model, such as distorted electric guitar.

Valve Microphones 132

Valve mics — capacitor mics with a valve-based preamplifier on-board — are renowned for their unique character and warmth.

Specialised-application Microphones 154

From clip-on drum mics to dedicated piano mics, they are all in here.

Boundary Microphones 174

Usually offering a hemi-spherical pickup pattern, boundary (sometimes also called 'pressure-zone') microphones are designed to be mounted on a large, flat surface. When mounted on a wall, floor or ceiling they are able to effectively eliminate the mounting surface as a source of reflected sound, resulting in a subjectively cleaner output.



MIKING SENSE

Microphone Types & How They Work

Not all mics work in the same way. In fact, there are several, significantly different basic microphone types, and it helps to know what's going on inside each of them...

PAUL WHITE

A microphone is a device designed to translate the vibrations travelling through air, which we call sound, into an analogous electrical signal that may then be amplified and recorded. Their operation generally involves a lightweight diaphragm of some kind being moved by the changes in air pressure that constitute sound. The electrical output is derived by monitoring the motion of the diaphragm relative to the fixed parts of the microphone.

The part of the microphone that incorporates the diaphragm assembly is known as the capsule and, in most microphones that use a small-diameter capsule, the capsule is aligned such that the end of the microphone is intended to be aimed at the sound source. Most 'stick' microphones — other than figure-of-eight models — are arranged this way, as are all the typical stage vocal microphones, such as the SM58. Larger studio capacitor microphones, with diaphragm diameters above 0.75 inches or so, usually have the capsule facing sideways; a logo or other marker, such as Rode's gold dot, is used to indicate the front of the microphone. The same is true of most ribbon microphones.

However, before looking at the mechanisms most commonly used in microphones, it helps to understand the two main ways in which a diaphragm can be used to track air vibrations: the pressure model and the pressure gradient model.

Under Pressure

When a sound arrives at the diaphragm from the front, it is said to be 'on axis'. Sounds are 'off axis' when the sound source comes from some other angle. A microphone is said to be 90 degrees off axis when the sound source is in alignment with the edge of the



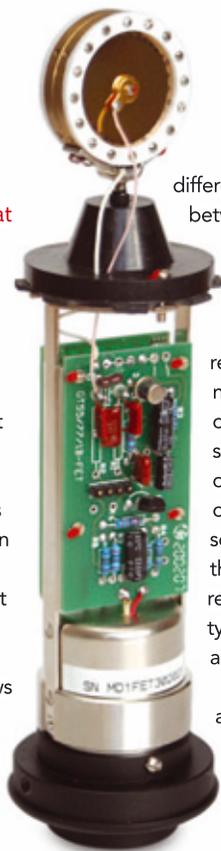
A typical solid-state capacitor microphone, with the diaphragm at the top and circuitry beneath.

diaphragm, and 180 degrees off axis when the sound approaches directly from behind.

If you have a diaphragm fixed across the end of a sealed cavity, it will move in response to changes in air pressure regardless of the direction of the sound source. This pressure configuration produces an omnidirectional pickup pattern. In other words, a theoretically perfect omni microphone picks up sound equally well from all directions. Because a sealed cavity also follows changes in air pressure due to weather — in the same way as a barometer — pressure mics are invariably designed with a deliberate, very small, air 'leak' to equalise the internal and external pressure at very low frequencies. This leakage is too small to be significant at audio frequencies.

In reality, an omni mic can never work equally well in all directions as the physical body of the microphone blocks out some of the sound that it is trying to pick up, but a well-designed model can get very close. Note also that pressure mics don't exhibit any 'proximity effect', so there's no disproportionate 'bass lift' when the microphone is used close to the source. See the 'By Proxy' box below for more info.

The other way to arrange a microphone diaphragm is to leave it open to the air on both sides. In this configuration, sound approaching the diaphragm from directly in front or directly behind will cause movement of the diaphragm, as there will be a pressure



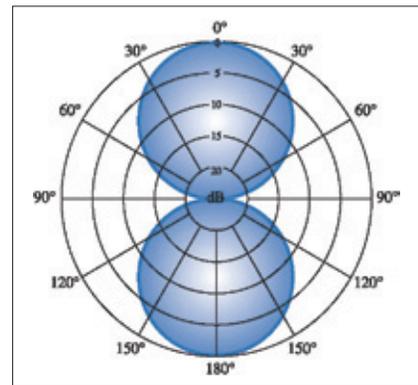
difference, or 'pressure gradient', between the front and rear of the microphone. However, sound approaching from 90 degrees off-axis reaches both sides of the diaphragm at the same time, resulting in no pressure difference, no movement and no electrical output. The signal produced by sound approaching from the rear of the diaphragm would be of the opposite 'polarity' to that caused by sound approaching from the front of the diaphragm. Plotting the 'polar response', or pickup pattern, of this type of microphone would reveal a figure-of-eight pattern.

Pressure-gradient mics exhibit a strong proximity effect, which means that as they get closer to the sound source, the low frequencies appear to be boosted. Because of this factor, 'low-cut' filtering may be needed to restore the tonal balance for close-miked sources, and in the case of live vocal mics designed to be used very close to the mouth, internal filtering is often used to counteract the proximity effect.

Take It To Heart

From the previous explanation of the two ways of utilising a diaphragm to collect sound, it would seem that there are only two microphone patterns: omni and figure-of-eight. So where does cardioid come from? The cardioid — or heart-shaped — pattern refers to a microphone that is far more sensitive at the front than at the rear, and it is achieved by creating a hybrid of the cardioid and figure-of-eight patterns. The usual way to do this using a single diaphragm is to fit an acoustic 'labyrinth' to the rear of a pressure-gradient microphone to force the diaphragm to behave in a hybrid mode somewhere between pressure and pressure-gradient operation. The balance between the two modes can be varied according to the design of the acoustic labyrinth to produce wide or narrow cardioid patterns and, once you appreciate that the cardioid pattern is, in effect, a combination of the omni and figure-of-eight patterns, you can see why a hyper-cardioid pattern results in a small 'bulge' at the rear of the polar pattern, as the figure-of-eight pattern starts to predominate.

Because a cardioid mic responds to a pressure difference between the front and rear of the capsule, it is still classed



A figure-of-eight polar pattern (shown here) is achieved when both side of a diaphragm are left open to the air, thereby picking up sounds from in front of and behind the mic, but 'rejecting' sound from either side.

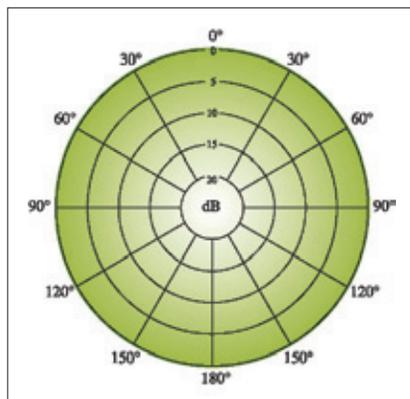
as a pressure-gradient microphone (even though it is really a hybrid of pressure and pressure gradient) and, as such, exhibits a proximity effect, though to a lesser extent than a pure pressure-gradient (figure-of-eight) microphone. Note that the majority of cardioid-pattern microphones have a fairly complex off-axis response: their sensitivity to high frequencies falls off more rapidly than their sensitivity to low frequencies as you move towards the sides and rear of the microphone. To achieve a natural sound it is often necessary to control what reaches the rear and sides of the microphone using acoustic screening when recording.

»

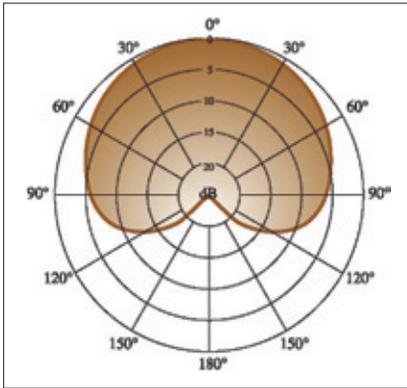
By Proxy

Pressure-gradient microphones (the figure-of-eight and its cardioid derivatives) exhibit what is known as the 'proximity effect', which is a boosting of low frequencies when the sound source is located close to the microphone. This is related to the way that sounds arriving at the front and rear of the diaphragm combine and, at short distances, the pressure difference between the front and rear of the diaphragm at low frequencies increases more rapidly than at high frequencies.

While experienced vocalists can exploit the proximity effect to vary the tonality of their performance, it can be a problem in the studio. Positioning a pop shield to prevent the singer getting too close to the microphone is a common solution as this limits unwanted tonal changes due to unintended position changes. Omni microphones do not exhibit a proximity effect.



As you can see from this diagram, an omni-pattern microphone should pick up sound equally well from all directions.



A cardioid pattern is so-called because of its heart-like shape, picking up sounds from in front of and to the sides of the microphone, but rejecting sounds to the rear.

» **Mic Mechanisms**

Having looked at the way a diaphragm's pickup-pattern behaviour can be modified by the acoustic system in which it is mounted, it is now appropriate to examine some of the ways that its movement can be turned into a useful electrical signal.

What is, arguably, the most common type of microphone used in the audio business — the so-called dynamic microphone — works on the principle of moving an electrical conductor within a constant magnetic field. This action induces a current into the conductor in accordance with Faraday's law, which I'm sure most of us have hastily forgotten since leaving school! Anyhow, it is essentially the same action that occurs in electrical dynamos, except that, in the case of a microphone, an audio-frequency vibration in the conductor results in an audio-frequency alternating current ('AC') at the output. As the amount of energy intercepted by the mic is very small, the electrical energy generated is also very small, and needs amplifying to make it useful.

The most common type of dynamic microphone is the 'moving-coil' type, the majority of which are designed to produce a cardioid polar pattern. Here, a coil of very thin wire is attached to the rear of the diaphragm, the overall construction looking much like a loudspeaker in miniature. The coil is suspended in a narrow gap within a magnetic structure (again, very much like that of a loudspeaker) so that, as the diaphragm moves, the coil riding on its back also moves, and a current is induced in the coil due its interaction with the magnetic field. Moving-coil microphones lend themselves to automated mass

production, they are pretty rugged, and they need no power to operate. They can also be designed to tolerate very high sound pressure levels (SPLs), making them well suited to drum recording and placement close to loud brass instruments.

Their Achilles heel is that, since the diaphragm has to drag the coil along with it, the laws of inertia make it more difficult to move at higher frequencies, and the practical outcome is that most moving-coil microphones have a response that starts to roll off at around 16kHz or so. New materials and more sophisticated magnetic alloys, such as neodymium, have managed to extend this range slightly in some cases, but they are still not the ideal choice for sounds with a lot of high-frequency detail. Moving-coil mics are also less suitable for quiet sound sources due to the amount of amplification needed to bring their relatively weak outputs up to a useful level. They are, however, commonly used for live vocals, drum miking and guitar-amp miking.

The other common type of dynamic microphone is the ribbon microphone. Instead of a voice coil, an electrically conductive ribbon, usually made from metal foil, is suspended in a strong magnetic field and the audio signal induced directly into the ribbon material. Typically, ribbon microphones exhibit low sensitivity, which means they need more amplification to achieve the same level as you might expect from a moving-coil dynamic microphone. For this reason, some models are built with preamps inside the microphone to turn them into 'active' microphones.

In all the common ribbon microphone designs, the ribbon is open to the air on both sides, and so has a natural figure-of-eight response, though it is possible to build modified ribbon microphones that achieve a cardioid response. Most show a depressingly poor frequency response on paper, often starting to roll off as low as 10kHz, or even lower. However, their very simple, open construction gives them a natural sound, and adequate high-frequency information can often be restored using EQ, providing circuit noise doesn't become a problem. It often does when the sound source is quiet, however, and the amount of amplification needed can be high. The natural 'roll-off' of a ribbon microphone can also be used to advantage, to bestow a silkier-sounding top end to bowed strings, cymbals and electric

guitar, and the tonality also suits some vocal styles. Recent technological advances have produced ribbon microphones with far more high-end extension, making them better suited to sound sources that include important high-frequency information.

Classic styles of ribbon model, such as those built by Coles, Royer and AEA, tend to be expensive, which puts many home recordists off buying them. However, there are now many more affordable models made in the Far East that allow the home studio user to experiment with them at a much lower cost.

Note that, in comparison with other microphone types, ribbon microphones are, in the main, still relatively fragile, so you should be very careful with them if you want them to survive for a long time. They should be protected from strong blasts of air when recording vocals, brass or kick drums by using a pop shield. Most manufacturers also recommend storing ribbon microphones upright to avoid the ribbon sagging under its own weight. When buying a ribbon microphone, always enquire as to the cost and procedure for replacing the ribbon should it get damaged.



Moving-coil (often called 'dynamic') mics, such as this popular model by Shure, lend themselves very well to stage use, due to their fairly rugged construction and ability to handle high SPLs.

Capacitor Mics

The other major class of designs are also sometimes known by the older term 'condenser microphones'. An electrical capacitor is formed

whenever a pair of conductive plates are placed in close proximity separated by an air gap or a suitable insulating dielectric material. A capacitor can store an electrostatic charge and, if you vary the distance between the plates of a charged capacitor, the voltage between the two plates also changes. This basic law of physics can be exploited to turn a specially designed capacitor into a microphone when one of the plates is a thin, light, metalised diaphragm and the other a fixed plate.

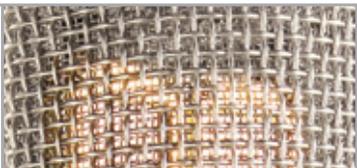
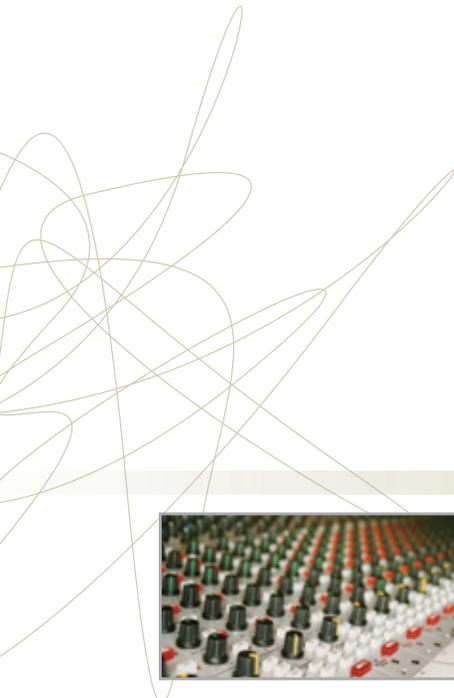
The usual diaphragm material used in today's capacitor microphones is a form of Mylar (a type of plastic) coated with a very thin layer of metal (most often gold). The diaphragm is then mounted close to a fixed back plate and an electrical charge applied. As sound causes the diaphragm to vibrate,

»



**PURE
INNOVATION**

**NOT
EMULATION**



Specifications

Polar pattern Cardioid

Frequency response 20 – 20,000 Hz

Open circuit sensitivity
–25 dB (56.2 mV) re 1V at 1 Pa*

Maximum input sound level
142 dB SPL, 1 kHz at 1% T.H.D.

Signal-to-noise ratio¹
89 dB, 1 kHz at 1 Pa*

Noise¹ 5 dB SPL

Impedance 50 ohms

Dynamic range (typical)
137 dB, 1 kHz at Max SPL

Specifications are subject to change without notice.
*1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL
¹ Typical, A-weighted, using Audio Precision System One.

Introducing Audio-Technica's premier studio vocal microphone, the AT5040 cardioid condenser. The debut of our flagship 50 Series, the AT5040 represents a milestone in condenser design, offering remarkably musical high-fidelity performance, with profound realism and depth, presence and purity of sound. As much as we admire the great microphones of the world, this new 50 Series cardioid condenser is pure innovation, not emulation. Wherever your passion for music takes you, listen for more.

audio-technica.com

Boundary (or pressure zone) mics tend to produce a natural sound as they are placed very close to a boundary such as a floor, wall or piano lid, and therefore do not pick up reflections from that source.



» its distance from the back plate varies, resulting in a changing voltage measured between the diaphragm and back plate. An extremely high-input-impedance preamp must be located very close to the capsule to follow this changing voltage without draining away the electrical charge, and this usually takes the form of a Field Effect Transistor (FET) or a valve. For this reason all capacitor microphones are active and require external power to operate. Most FET models require phantom power, while valve microphones have their own external power supplies.

Because of the extra cost of the components and power supply, valve mics are generally more expensive than FET models, but remain popular due to the warm tonality and smooth high end of a well-designed valve circuit.

As the capacitor diaphragm doesn't have the added baggage of a voice coil or the magnetic drag of a ribbon model, it can be made just a few microns thick, which gives

it an extremely low mass. This enables it to follow high frequencies more accurately, and a typical capacitor microphone is effective right up to 20kHz or beyond. Their internal circuitry also produces a relatively high output signal, so they can be well suited to recording quieter sounds, though many models can also handle high SPLs, sometimes by switching in a pad circuit. This makes them appropriate for almost any vocal or instrument application.

Capacitor microphone capsules can be designed to have any fixed polar pattern, and many models incorporate a pair of back-to-back cardioid capsules that can be mixed to produce the whole range of polar patterns from a single microphone by means of switching.

Though generally fairly rugged and reliable, capacitor microphones can suffer from temporary sensitivity loss if subjected to high levels of humidity; letting them rest in a warm place for a while usually fixes the problem. So-called 'RF' capacitor microphones, such as the Sennheiser MKH series, use a high-frequency alternating current to bias the capsule, and, though more complex to design and build, these are far less susceptible to moisture problems.

Original studio-grade capacitor microphones were very costly but, with greater demand due to the proliferation of home studios and the economies of scale and Far-Eastern competition, prices have been brought down to very affordable levels. You can still pay a lot for a premium or hand-built microphone, but some of the less costly ones perform very well indeed.

In The Zone

Boundary microphones (sometimes called PZM or Pressure Zone Microphones) work by responding to the air pressure differences occurring at room boundaries such as walls, floors or ceilings. Because the microphone is located extremely close to the boundary, it cannot capture any reflections from that boundary, which can help capture a more natural sound. Most boundary microphones used for recording have a hemispherical polar pattern. They can be useful fixed under the lids of grand pianos or on the ceiling above drum kits in place of the more usual 'stick mic' overheads, especially where the ceiling is low.

Back Chat

A back-electret microphone is a special type of capacitor microphone that uses a permanently charged material affixed to the back plate. This maintains the charge on the capacitor capsule, so it doesn't require an external 'polarising' voltage normally provided by phantom power. It still needs power for the onboard preamp though, which comes via standard phantom power, in most cases. Some back-electret models, however, can run from batteries. In terms of its performance and application, a back-electret microphone may be considered as being pretty much the same thing as a standard capacitor microphone. Indeed, some of the best microphones out there have back-electret capsules.

Note that some consumer electret microphones (not back-electrets) have the charge-carrying material fixed to the diaphragm rather than to the back-plate, which invariably adds mass, thereby limiting the frequency response. These are best avoided for serious studio work.

Phantom Power

Phantom power is so called because it invisibly shares a standard three-conductor balanced microphone cable with the audio signal, and it is a standard method of supplying 48 Volts DC electrical power to active microphones. There are other phantom-powering standards providing 12V or 24V, though 48V is the most common requirement and is supported by the majority of recording and live sound equipment. Phantom power is usually generated within the mixing console or microphone preamp to which the microphone is connected, though separate phantom power supplies are available. The system works by applying the 48V power source to both the hot and cold signal lines of the balanced audio cable using the ground screen as the neutral. Circuitry within the microphone then separates the DC power from the audio output signal.

The vast majority of dynamic microphones (other than active ribbon models) do not require phantom power to operate. Phantom power should not cause any problems to a microphone that doesn't need it, providing a balanced XLR cable is used and the cable isn't damaged, although as a precaution, the phantom power should still be switched off when connecting and disconnecting the microphone. **///**



The construction of a ribbon microphone means that it tends to have a natural figure-of-eight pattern, like this example from Royer.

“Once you try the Audix i5, there’s no turning back.”

Richard ‘Dickie’ Chappell, Music Engineer - Peter Gabriel

Here’s what engineers are saying about the i5:

“The best thing to happen to snare drums since Charlie Watts!”

Paul Hager - Front of House Engineer - Miley Cyrus

“I have been using the i5 on snare (top and bottom) for five years, and it’s become one of my favorites. This microphone has an incredible SPL response with a smooth low end, and is durable enough to stand up to all the abuse from touring.”

Stephen Shaw - Front of House Engineer - Buckcherry

“On the road you need three things: WD-40, gaffer tape, and an Audix i5. Use the first if it won’t move, the second so it doesn’t move, and use the i5 when it has to sound good. The Audix i5 is the thinking man’s standard for an all-purpose snare mic.”

Howard Burke - Front of House Engineer - Little Feat

“When JD Blair (Shania Twain) is out with us, I use only Audix mics on his kit. I have also used them for Derico Watson (Victor Wooten Band) for years. For full clarity, body, and accurate snare reproduction, I trust only the i5. Audix has never let me down!”

Jack Trifiro - Front of House Engineer - Shania Twain, Victor Wooten Band

“The Audix i5 is a workhorse and is one of the most durable mics I own. It can adapt to most situations, but I prefer it on snare because it doesn’t color the natural tone of the drum.”

Joe Amato - Front of House Engineer - The Gaslight Anthem

“Thanks to the Audix i5, getting a great snare drum sound is something that I take for granted. The i5 is what style of music. It is equally outstanding on stage and in the studio. The i5 keeps everyone happy: drummers, engineers, producers, and the audience.”

Charles A Martinez - Front of House Engineer - Steely Dan

“This mic is slammin’! If you’re tired of a heavy stick hit blowing your snare mic cap to pieces, you’ll love the Audix i5!”

Anthony Roberts - Monitor Engineer - Tower of Power

“I am quite familiar with the Audix i5, because I use it on both of Travis Barker’s snares. The i5 handles the high SPLs of his fast and hard playing, as well as the subtle nuances of his delicate rolls, all without coloration or distortion. This mic helps me get a great mix!”

Jason Decter - Front of House Engineer - Blink 182

Audix is extremely proud of our award-winning i5 dynamic microphone, and of the many prestigious artists and audio pros who rely on it for live performances and studio sessions. The i5 accurately captures the backbeat of every drum kit - the snare drum.

Pictured with the DVICE - a patented rim mount clamp with flexible mini-gooseneck.



www.audixusa.com

© 2013 Audix Corporation. All rights reserved.
Audix and Audix logo are trademarks of Audix Corporation.

TAKING TO TASK

Choosing The Right Microphone For The Job

There's no such thing as
a one-size-fits-all mic, so
how do you choose what's
best for you?

PAUL WHITE

While we humans get by with a single set of ears for every listening application, it isn't so easy when it comes to microphones. For a start, their prices range from affordable to astronomical, and while some are built with sonic accuracy in mind, others are designed to convey some kind of sonic flattery. It is particularly difficult to recommend a 'best' vocal microphone, as the experienced engineer will usually try to find a microphone that emphasises the more pleasing aspects of a person's voice while giving less prominence to the less desirable aspects. Then there are other factors that affect the way a microphone behaves, such as microphone placement and room acoustics.

Part of the problem arises because the human hearing system involves a lot of psychoacoustic processing in the brain. There are also mechanical considerations, such as the shape of the ears and the 'head-masking' effect, that allow us to interpret a subtle change in the frequency spectrum as a change in the position of the sound source. We can also pick out





sounds in a busy background by simply concentrating on what we want to hear. The microphone has no such trickery to rely upon; it picks up both wanted and unwanted sounds equally well.

Omnidirectional microphones pick up sounds more or less evenly from all directions, but even these fail to replicate the human hearing system, in which the sound spectrum changes depending on the direction from which the sound approaches the ear. Cardioid models fare even less well, as their off-axis frequency response is often sub-optimal at best, and unpleasantly muddy at worst. While we normally set up cardioid microphones to point at the sound source they are supposed to be picking up, any reflective surfaces in the room will cause some sound to bounce back into the microphone and, depending on the angle that those reflections hit the microphone, the off-axis sound will be more or less coloured by the microphone's own directional characteristics.

Room For Improvement

Before choosing a microphone, it's worth looking at how you can reduce the undesirable side effects you might get when recording in a real space with reflective walls. One option is to work in an acoustic space that flatters the sound. Of course, to make this work you'll need to use a microphone with a fairly accurate off-axis response, which usually means an omni model, although some of the more sophisticated cardioid microphones have

Getting Vocal

If you need one vocal microphone to work adequately with a range of vocalists, choose one that doesn't have a pronounced sonic character. The more coloured a microphone sounds, the more likely it is to work well with some voices and less well with others.

a good off-axis response. The other option, of course, is to use screens so that your microphone picks up as little reflected sound as possible: a good solution when using cardioid-pattern microphones to record vocals.

We're often asked to suggest ways to improve vocal recordings and, in most instances, spending a small amount of money on acoustic screens makes more difference than spending big bucks on exotic microphones and preamps. Our usual suggestion is to put a heavy blanket or duvet behind the singer to intercept reflections from the walls behind them, and to use a commercial screen, such as the SE Reflexion Filter, behind the microphone to screen the rear and sides.

Vocal Mic Character

Studio vocals are most often recorded using large-diaphragm cardioid microphones in conjunction with the type of screening arrangement described above, or by working in a properly designed vocal booth. Large-diaphragm capacitor microphones are popular because most models impose

»



If your chosen mic is set up in a poorly treated room, it may never sound good. Make sure you use appropriate treatment, like a Reflexion Filter if you're a vocalist, for example.

» some kind of tonal character on the sound, though, if you want to record the vocal as accurately as possible, there's no reason at all not to use a small-diaphragm capacitor microphone.

As a very general rule, microphones with a pronounced high-end lift are useful to balance singers with a dull voice, while darker mics are useful for singers with spitty voices and exaggerated sibilance. Tube microphones also add a little low-mid weight and high-end shimmer to the sound. Remember, though, that the actual frequency response of a microphone is usually much more complex than the smoothed-over graphs in the brochure suggest. What this means, in reality, is that the only way to be sure what microphone works for a particular singer's voice is to try several and pick the one that produces the best subjective result. Other than the overall tonality, better-quality microphones produce a sound that seems to sit better within a busy mix; they exhibit clarity but without sounding harsh, which is something I like to describe as a sense of 'focus'.

A good vocalist will still sound good recorded with a decent live dynamic microphone and, for some styles of rock or urban music, the sound might actually be more artistically appropriate. The highs will sound less open and airy than with a capacitor microphone, but you can still get great results. A ribbon microphone can also be a good choice when you want a silky smooth sound — a popular choice for a vintage jazz or crooner tonality. The only rule? If it sounds good, it is good.

Instrument Mics

A lot of acoustic-instrument recording is done using capacitor microphones as they handle high frequencies with greater accuracy than dynamic models, so transients such as string attacks come over well. Even so, dynamic

There's no hard and fast rule to choosing a microphone. Mics vary hugely in price, and you may prefer the sound of a budget model to a high-end one. It's all down to personal choice.

Small-diaphragm microphones tend to work well in situations where high-frequency detail is required.

microphones are still often first choice for close drum microphones, and often for guitar amps too. Where accuracy is required, a small-diaphragm capacitor microphone is the usual choice, ideally one with a flat frequency response rather than a designed-in presence peak to lift the treble. Where the environment permits, an omni-pattern microphone will usually produce a more natural-sounding result than a cardioid model, while the lack of proximity effect may also make it less critical of positioning. Many people shy away from using omni microphones because of the worry of picking up too much spill from other instruments but, in reality, you can often bring an omni microphone closer than an equivalent cardioid model, which reduces the spill to a level more comparable with what you'd expect from a cardioid microphone. Furthermore, because the omni microphone has a good off-axis response, such spill as is picked up will at least sound accurate (whereas spill can sound muddy with a cardioid microphone) and may even help to glue the recording together.

While expensive microphones generally perform better than cheap ones, there are actually comparatively few really bad microphones on the market and most will give decent results if you work around their weaknesses and take care in their placement. The most important factors to take into consideration are how much

SPL (sound pressure level) the microphone can tolerate, how much self-noise the microphone produces (if it's a capacitor mic) and whether the frequency response is flat, or tailored to produce a specific tonal character. Off-axis response is also important in situations where a significant amount of spill or reflected sound will reach the sides of the microphone. Where the sound level is low, having high SPL handling isn't so important, and anything rated in excess of 125dB should be fine. However, you need the self-noise of the microphone to be low to avoid hiss, so aim for a model with 12dB EIN (equivalent input noise) or less. Where the sound level is high, the microphone's noise figure is less important, and anything better than 20dB EIN will probably be fine, though you'll need an SPL handling in excess of 135dB and, ideally, 140dB or more.

Small-diaphragm capacitor microphones are my usual first choice for recording acoustic guitars, though you can get perfectly acceptable results from a large-diaphragm vocal capacitor microphone, and a number of professionals like to use the AKG C414 in that application. I wouldn't normally use a moving-coil dynamic microphone to record acoustic guitar, but some of the modern ribbons with an extended high-end response (such as the SE Voodoo range) can sound excellent.

For stereo recording using a coincident or spaced pair of microphones, the two microphones ideally need to be closely matched, and many manufacturers produce selected matched pairs for this purpose.



Shock Therapy

Use a shockmount if your microphone stand is placed on a floor that carries vibrations. Many microphones now come with shockmounts but, if you want the best, check out Rycote as their shockmounts really work and they're virtually indestructible! It's also important to route the mic cable in such a way that it can't transmit vibration to the microphone and bypass the shockmount. Leaving a small loop of loose cable beneath the microphone and clipping the cable to the stand is usually the preferred option.

Depending on the singer's technique, a pop shield can be pretty much essential when recording vocals. The metal-mesh models are arguably more tonally transparent than the nylon-mesh (stocking nylon) models. Pop shields break up air blasts from the mouth that might otherwise cause popping or even clipping, and should be set up around 50 to 70 mm from the microphone.

Alternatively, you can buy dedicated stereo microphones in which a pair of coincident capsules share the same housing. These are convenient and easy to set up but are less versatile than individual microphones as you don't have the option of using them as a spaced pair.

Drum Mics

The most common drum-miking setup used in the studio comprises a cardioid-pattern dynamic microphone close to each drum with a pair of capacitor or ribbon models above the kit as overheads. There may be additional capacitor microphones further back in the room if it is large enough. A further capacitor microphone may also be used on the hi-hat. The Shure SM57 and Sennheiser MD421 are popular choices for snare drums and toms, though some engineers prefer the sound of capacitor microphones because of their better transient-handling capabilities. However, dynamic microphones are more likely to survive if the drummer hits them by mistake! The kick drum may be miked using a dynamic microphone designed to handle low frequencies, such as the AKG D112, though, again, some engineers prefer the sound of a large-diaphragm capacitor microphone, such as a Neumann FET47 or one of its clones. The most important factors for a kick drum microphone are high SPL handling and the ability to capture low frequencies down to 40Hz or below.

A number of microphone companies now produce drum-microphone kits using small-body dynamic or capacitor microphones that clip directly to the drum rims. These ease setting up and leave more space for the drummer to work, but there's less flexibility when it comes to adjusting the microphone positions.

Electric Guitar & Bass

Though bass guitar is often DI'd these days, both bass and guitar amps can be miked to produce great results, the choice of microphone being largely down to taste. While dynamic models are invariably used for live work, studio engineers have their favourite dynamic and capacitor choices, with ribbon microphones also becoming popular for their ability to smooth out the extreme highs. The Shure SM57 is a common favourite dynamic mic for electric guitar, and rivals such as the Beyers M201, Sennheiser e906 and Audix i5 are widely used too. Personally, I also like the sound of the Audio-Technica AT3050 capacitor microphone set a little further back, and many of the affordable ribbons also give good results. Bass guitars may benefit from a microphone with a more extended bass response than the SM57, though combining an SM57 or equivalent microphone with a DI signal will often produce the required depth of tone, as long as you ensure the two signals are phase-aligned. Because guitar amps can be very loud, choose something capable of handling in excess of 135dB to be on the safe side.

For percussion, small-diaphragm capacitor microphones are usually a safe bet, but ribbon microphones can also sound very natural and somewhat less brash. This is useful with instruments such as tambourines, which can put out a lot of high-frequency



It is possible to buy dedicated drum mics that clip directly onto the rim of the drum. These are very convenient to set up, as they do not require external stands, but also slightly reduce your positioning options.



Large-diaphragm mics are often a first purchase for small-studio owners — especially vocalists — as they tend to add a pleasing character to the sound.

energy, and good ribbon mics respond well to EQ if you do need to add more top. In reality, you can get away with just about any microphone on percussion if you have to, and I've had acceptable results from both dynamic microphones and most large-diaphragm vocal microphones.

Splashing The Cash

There are some very capable studio microphones available at affordable prices, but at the same time, if you do decide to splash out on something a bit more exotic, it should give you a lifetime of service as long as you look after it. While hi-tech digital hardware and software eventually becomes obsolete, a good microphone never will. If you choose carefully, the first microphone you buy will always be useful for something, even if you add a better microphone to your collection later. A large-diaphragm vocal microphone is usually the first purchase for the home studio owner, but the sooner you can add a couple of small-diaphragm microphones and a dynamic model or two — maybe a ribbon — the better equipped you will be to do justice to your next recording project. ■■■



WELL CONNECTED

Rigging, Connecting & Caring For Your Microphones

Looking after your mics effectively and knowing how to rig them properly should ensure that you see years of trouble-free use from your collection...

HUGH ROBJOHN'S

Microphones are delicate technical instruments — some more so than others — that need careful handling, rigging and storage if they are to provide a long and reliable service life. The greatest risk to a microphone lies in being dropped on to a hard surface, since this is likely to damage the capsule, diaphragm or internal electronics, and even a modest dent in the wire mesh grille can have

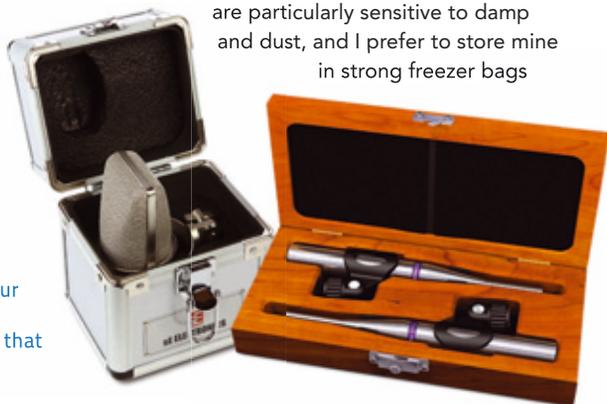
a significant effect on the microphone's tonal quality in some cases.

Caring For Microphones

Microphones should be stored in their individual manufacturers' cases when

Where possible, always store your microphones in a purpose-built case — preferably one made for that specific model of microphone.

not in use, or in a purpose-designed case or storage unit where they should be held securely, and protected from dust, damp and rapid or extreme changes in temperature. Capacitor microphones are particularly sensitive to damp and dust, and I prefer to store mine in strong freezer bags





adequate protection. Long ribbons can also sag if left horizontally for long periods, and so should be stored vertically if possible.

If a microphone is in frequent use, the risk of damage from repeatedly mounting and dismantling it from a mic stand is probably greater than that of not storing the mic safely. It might, therefore, be more appropriate simply to leave the mic on the stand, but to cover it with a bag when not in use to protect from dust and strong air currents. Some professional studios prefer to leave their capacitor microphones permanently mounted and phantom-powered to help maintain a constant internal temperature.

If a capacitor microphone is used in a very humid environment, or suffers from condensation after being moved from a cold area to a warmer one, the condensing water vapour can act to short-circuit the diaphragm, resulting in a hissing, sizzling, or 'spitty' background noise. This will normally disappear when the microphone has dried out and rarely

with a silica gel sachet when not in use. Ribbon microphones, meanwhile, are particularly prone to damage from strong air currents and ferric debris attracted by their magnets, and so should also be stored in a plastic or fabric bag to provide



causes any lasting damage. However, a dirty or contaminated diaphragm will tend to retain moisture, and it may be difficult to cure the problem without professional diaphragm cleaning. For this reason, microphones should not be exposed to smoky environments, where smoke particles could settle on the diaphragm, or used for close vocal work without a pop shield (which will help by trapping water droplets and other debris from the mouth before they can reach the diaphragm).

If well looked after, good quality microphones should have a very long serviceable life, and it's not unusual to find microphones still providing sterling service after 30 or 50 years, or even longer. However, some microphones do exhibit a natural deterioration in performance

For protection from moisture and dust you can keep mics in plastic freezer bags with silica gel sachets, perhaps storing any dedicated cables or accessories with them.



The standard way of connecting mics is with a three-pin XLR cable. Microphones sometimes use a five-pin or seven-pin version, but this tends only to be seen with stereo and valve microphones respectively.

with age, usually resulting in a loss of sensitivity and HF extension, and an increase in noise. In particular, electret microphones — especially those from the 1970s and '80s — gradually lose the stored static-electric charge (usually taking over a decade), and some early

“If well looked after, good-quality microphones should have a very long, serviceable life.”

(pre-1970s) ribbon microphones can also suffer as the permanent magnet can lose its fluxivity. Both situations are extremely hard to remedy and repairs are rarely cost-effective or practical.

Connecting Microphones

Before the late 1970s, microphones employed a variety of different and incompatible connection formats, but standardisation on the three-pin XLR for the vast majority of microphones has made interconnection significantly easier. The standardised Audio Engineering Society (AES) wiring convention can be remembered as X-screen (pin 1), L-live or 'hot' (pin 2), and R-return or 'cold' (pin 3), with the outer pins being one and two, and pin three being in the centre. Better-quality XLR sockets have an extended contact surface for pin one so that the earth makes contact before any of the others as the connectors are mated. Stereo or dual-capsule microphones usually employ a five-pin version of the XLR (there is a corresponding AES wiring convention), while valve microphones



Cable Coiling & Storage

Microphone cables tend to be long and bulky, and are prone to tangling if not stored carefully. My preferred solution is to store cables on a purpose-designed drum, since this allows the fastest means of accessing and re-packing the cables, as well as being extremely space-efficient. I fix a short XLR tail to the drum wired to the appropriate chassis connector mounted on the drum's centre hub. Cables can then be connected to this tail and to each other to wind onto the drum in one continuous length, and the entire set can then be checked quickly for correct function simply by plugging a cable tester between the exposed end and the hub connector. Where several different 'standard' lengths or types of cables are used, the drums can be marked accordingly for instant recognition and convenience — and that also makes it easier when enlisting enthusiastic novices to help de-rig!

An alternative approach is to coil cables individually, securing each coil with a tie of some description and storing them in a trunk, flightcase or other box. Leather bootlaces, Velcro tags or electrical tape

(and in that order of preference) are the most popular means of securing the individual cable coils. However, coiling cables properly so that they won't tangle is an acquired skill that is well worth mastering. The essential element is to reverse the direction of each coil turn so that there is no overall twist through the cable. Most people are familiar with the rope-coiling technique of introducing a half-twist with each new coil, usually by 'rolling' the thumb over the rope as each new length is introduced to the rest of the coil. However, this practice adds half twists in the same direction with every turn, and although it results in a neat coil it also makes the coil very prone to tangling.

When coiling a microphone cable a similar technique is required but with alternating twist directions for each new turn. The first coil is produced in the normal way with an 'overhand action' while the second is twisted in the opposite direction and brought to the coil with an 'underhand' action. It sounds complicated but this 'over and under' technique is actually very straightforward



and easily mastered, and ensures that there is no net twist within the coiled cable at all. When the end of the cable is reached the XLR connector is brought around the outside of the coil and plugged into the other XLR, and the coils are then secured together in some convenient way. To use the cable the tie is released and then, while holding the still-connected XLRs, the cable is 'thrown out' to form a guaranteed tangle-free loop. The XLRs can then be separated and the cable plugged up as necessary.

» generally use a seven-pin XLR (but with a variety of different and incompatible wiring conventions).

Microphones with XLR outputs are designed to be used within a low-impedance and balanced interface, and expect to 'see' a preamp input impedance of typically 1.5kΩ to 2.5kΩ. However, this value varies with different preamp designs and can affect the microphone tonality in some cases.

Microphone cables come in a variety of forms and specifications, as well as lengths. Given the very low output signal that most microphones produce it obviously makes sense to keep microphone cables as short as practicable, but it's not unusual to find professional rigs with microphones connected to 50-100 metres of cable without any significant loss of quality. Most cables comprise two inner wires twisted together for the balanced signal, sometimes spaced with packing cords, and surrounding that is a screen of some form, followed by the tough protective outer layer or sheath. The 'lay length' or the rate of twist of the inner pair affects the cable's ability to reject electromagnetic interference to some extent, and where high rejection of EM interference from nearby cables is important, an alternative construction, called 'star-quad', is often

used (see 'Star Quality' box, overleaf).

The cable screen is intended to prevent electrostatic and RF interference from reaching the inner signal cores, and there are several different types of screen. Some cables use a braided or woven screen, but these are fiddly to unpick before a connector can be soldered to the cable, and can bunch up and open out if the cable is bent over tight radii, reducing the screening effectiveness and making

as clicks or noise superimposed on the microphone's signal. For this reason, foil- and CP-screened cables tend to be used in fixed installations rather than as general-purpose or stage mic cables.

Another form of screening is the lapped and double-lapped (or Reussen) screen, and this tends to be more common on higher-quality microphone cables. In these cases the screen is formed from a multi-stranded band of wires that

“Coiling cables properly so that they won't tangle is an acquired skill that is well worth mastering.”

cable coiling very difficult.

A lot of modern cables use a foil or conductive plastic screen that is bonded to the inside of the protective cable sheath. These provide guaranteed 100-percent coverage under all conditions and are easy to remove when preparing the cable for wiring; a 'drain wire' usually runs alongside the foil or conductive plastic (CP) to provide the screen connection. However, in some circumstances this type of cable construction can become 'microphonic', meaning that movement of the cable can generate electrical signals which manifest

are wrapped in an overlapping spiral around the inner cores. The Reussen version has a second layer of lapped screening wires wound in the opposite direction to provide even better screening coverage and cable flexibility.

The outer sheath diameter and material are also important in the overall cable performance. Thicker sheaths provide greater mechanical damage protection but also make the cable stiffer, and stiff cables tend to transmit mechanical vibration directly into the microphone, resulting in unwanted subsonic noise. They can also be harder

»

Click, Listen, Demo.



The RØDE Soundbooth mic demo app –
Listen to every RØDE microphone on
a variety of instrument setups.



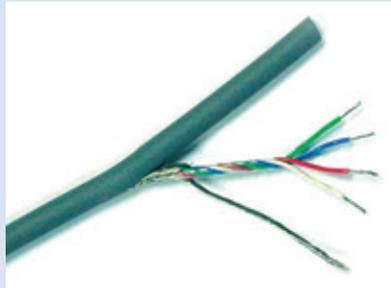
rodemic.com/soundbooth



Star Quality

The star-quad cable was invented in the 1930s by the telecoms industry to minimise interference from adjacent cables, and the name is very descriptive: the inner core comprises four wires in a star or cross configuration instead of the usual two, with an overall screen around the inner core. The inner core of four wires is tightly twisted with a very short lay length, and diagonally opposed pairs of wires are connected in parallel to provide two signal paths (to support a balanced audio interface). Most cable designs aid identification of the requisite pairs by colour-coding the wires, and the most common arrangements are either two blue and two white wires (same colours are connected together), or red, blue, green and white wires, with red-blue for one pair and green-white for the other.

In a two-wire cable, twisting the inner core wires together helps to minimise the 'loop area' which means that both wires are likely to experience the same strength of interference, and thus the differential receiver stands a good chance of cancelling that 'common mode' interference out. The tighter the twist, or the shorter the



lay length, the smaller the loop area and the better the rejection will be. However, if the source of interference is very close to the cable the inverse-square law of energy propagation means that the closer wire will tend to capture slightly more interference than the more distant wire, and common-mode cancellation will no longer work as effectively.

The additional two cores in a star-quad cable overcome the problem of very close-field interference by averaging out the difference in energy between the two sides of the balanced line, since each quad pair will now have both a close and a distant wire.

the appropriate thread for the mic stand you intend to use (5/8-inch US-style or 3/8-inch European-style), release the locking mechanism on the mic stand's shaft or boom arm so that it can rotate freely. Now, holding the microphone and its mount securely in one hand, introduce and rotate the mic stand shaft into the microphone mount with the other until it is tight and secure. Still holding the microphone, you can now tighten the locking mechanism to secure the microphone stand's position.

Releasing the microphone and mount from the stand is the reverse procedure: hold the microphone securely in one hand and loosen and rotate the mic stand's shaft or boom arm with the other. Never try to rotate the mic and mount around and around a static mic stand — that's a sure way to end up dropping the mic on the floor!

When positioning a boom-style mic stand, always ensure that one of the three tripod feet lies directly under the extended boom arm to guarantee stability. If the boom arm extends over the gap between two feet there is a much greater risk of it toppling over. If in doubt, add additional weight to the base of the stand, such as a lighting sand bag, stage weight or similar. Remember, the higher the microphone and the larger the boom extension, the greater the risk of toppling.

Ideally, when using a boom arm, the weight of the microphone should be perfectly balanced by a counterweight at the opposite end of the boom. This ensures that the centre of gravity is above

» to coil and to dress tidily on microphone stands. Thinner sheaths are more flexible and don't carry mechanical vibrations to the microphone but are more prone to damage. The sheath material affects the cable's handling properties such as the ease of coiling. In very cold environments, most cable sheath materials become very stiff and brittle, which can be critically important if you're ever asked to record penguin mating calls in Antarctica!

Rigging Cables

When rigging microphone cables it is best to avoid running them alongside any other kinds of cable, especially mains, lighting or digital audio cables. Instead, try to cross such cables at 90 degrees to minimise the risk of interference. But if that's not possible, keep the same cable types together, with as much space as possible between different types (eg. all the mains together, and well spaced from all the microphone cables). A small increase in separation can often make a big difference to the level of interference.

It is also important to minimise the risk of someone tripping over the cables, and to avoid placing any cables in a fire evacuation route. In general, it is usually a good idea to try to run cables in only one direction if possible, and away from

primary access routes to the area since this minimises the likelihood of people needing to step over the cables. Using heavy mats and cable protectors is a good idea, as is taping the cables down securely where practicable.

Rigging Microphones

Rigging microphones safely and efficiently is largely a matter of common sense, but there are some definite dos and don'ts to bear in mind and build into your working practice. Most microphone clips and shockmounts are quite fiddly and stiff — especially in the case of large studio microphones — and it's usually much safer to fit the mic to the shockmount or clip at a desk or somewhere equally safe, before attaching the assembly to the microphone stand.

Having checked that the microphone mount adaptor has



Attaching a microphone to its shockmount or stand clip can sometimes be a fiddly operation, and it is usually good practice to do this first, somewhere where you are not at risk of dropping the mic, before carefully mounting the whole assembly onto the stand.

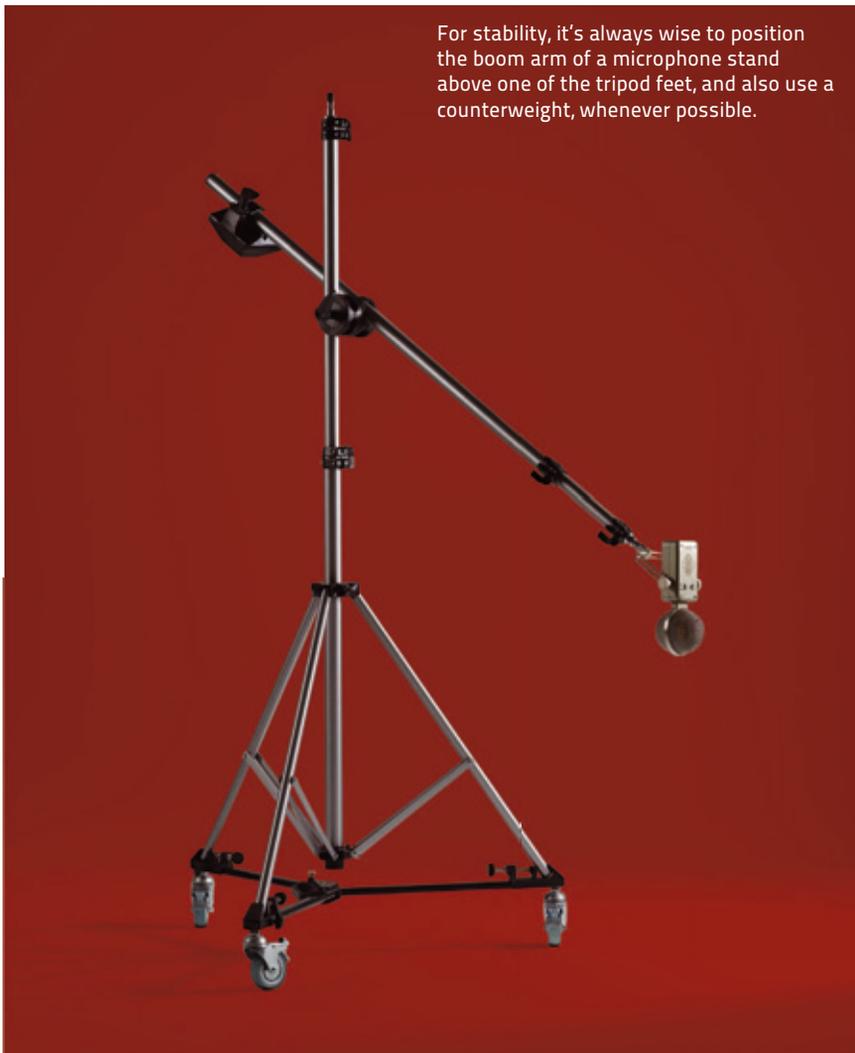
the stand's centre column and thus that it is inherently stable. It also minimises the rotational forces on the boom arm's clutch mechanism, reducing wear. Sadly, only the larger and more expensive stands tend to be equipped with adequate and movable balance weights; most stands have pathetically small and ineffective fixed counterweights. But it's worth being aware of the principles and arranging for additional counterbalance weights when necessary.

A very common complaint about microphone stands is that they often droop! The reason is usually a combination of very poorly balanced boom arms (especially when supporting heavy valve microphones at full stretch) and worn-out clutch mechanisms, the latter being the direct result of forcing the stand into new positions without first releasing the clutches. The best way to reposition a microphone is a variation on the mounting and dismounting procedure: support the microphone in one hand, release all the stand clutches and grips, move the microphone to the desired position and then retighten the clutches and grips again (bearing in mind the need to keep the boom arm directly over a base leg and maintain a good arm balance).

Obviously, repositioning the mic requires complete freedom of movement, and that's not possible if the microphone cable has been wrapped a dozen times around the boom arm and stand! One or two turns are all that is required to keep the cable neat and tidy, or plastic clips or tape can be used, while allowing relatively easy extension and movement. It also makes sense to keep any spare cable coiled up under the mic stand, rather than back at the wall or stage box, so that the stand can be moved easily if required.

Getting Vocal

When rigging a vocalist's microphone it is a good idea to provide a pop shield, partly to minimise any plosive pops, but also to avoid any diaphragm contamination from the considerable amounts of water vapour that pour out of the mouth when singing. Pop shields work best when there is a region of 'dead air' between the screen and the microphone grille, the ideal spacing being between one and two inches. Pop shields are available in a variety of sizes and forms, including single- and



For stability, it's always wise to position the boom arm of a microphone stand above one of the tripod feet, and also use a counterweight, whenever possible.

Pop shields not only prevent any plosives from causing pops, but also protect the mic diaphragm from contamination.

multi-layer fabrics, wire meshes, and open-cell foams. The last type tends to have the least audible affect, closely followed by the wire mesh type, with the fabric versions sometimes dulling the sound slightly. In general, the larger the better, especially if the vocalist is quite mobile!

Where microphones are likely to be exposed to significant air currents it is a good idea to fit a wind shield of some kind, and this is especially true of ribbon mics, which can be damaged by large air currents. Remember that hot air rises, so microphones placed high over an audience or above a heat source might



well experience surprisingly high levels of air movement, resulting in turbulence noise. Again, some form of wind shielding is a sensible precaution. Outdoor wind currents can be very strong, of course, and if working in this environment, a purpose-designed windshield system is advised, such as one of the various offerings from Rycote. ■■■

ON THE DOUBLE!

An Introduction To Stereo Mic Arrays

Finding the right mics for your needs will set you on your way to making great recordings, but expanding your collection to include at least one pair will open up all kinds of stereo possibilities...

HUGH ROBJOHN'S

There are three fundamental stereo microphone techniques, each with several variations on the theme, and all with their routes in pioneering research carried out in the 1930s. These can be broadly categorised as coincident, near-coincident and spaced. In very general terms, coincident techniques tend to produce finely detailed stereo imaging — equivalent perhaps to a detailed line drawing or a photograph

— and they are always fully 'mono-compatible'. The latter means that the quality doesn't change significantly when auditioned in mono.

In contrast, spaced techniques tend to deliver a far more spacious and ambiguous soundstage with very diffuse imaging, akin perhaps to a watercolour painting. Many people prefer this kind of stereo presentation, but mono compatibility is usually compromised to some degree, as the

timbral character can change quite dramatically when auditioned in mono. The near-coincident techniques, as the term implies, offer a blend of the characteristics of both coincident and spaced techniques, but with generally less extreme strengths and weaknesses.

Coincident Techniques

Coincident-microphone stereo techniques are so-called because the two microphones are mounted such that their diaphragms are aligned (or coincident) for the vertical axis. In other words, the microphone capsules are arranged to sit with one directly above the other, so that sounds arriving from sources arranged in front of the microphones will reach both capsules simultaneously. In this way there can be no timing or phase differences between the information carried in the left and right sound channels, which only leaves the possibility of amplitude differences. Those amplitude differences are produced by the use of directional microphones pointed in different directions!

Typically, cardioid, hyper-cardioid or figure-of-eight polar patterns will be used,



In a coincident array, the microphones are placed so that the capsule of one mic is directly above the capsule of the other. This ensures that sound arrives at both microphones at the same time, with directional information being conveyed through level differences only.

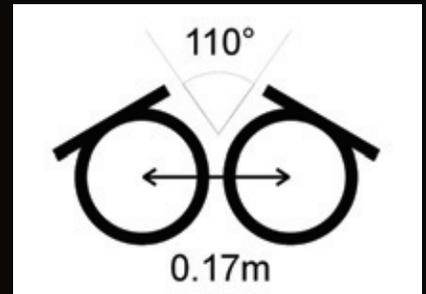
The ORTF array, shown here, is one of the best-known near-coincident arrays, which is designed to capture timing, amplitude and phase differences between the two microphones. As the diagram shows, they are placed around 17cm apart and turned away from each other slightly.



with a 'mutual angle' between the microphones typically being 90 degrees, although a wide range of alternative angles are possible, depending on the precise configuration used and the required 'stereo recording angle' (SRA). If you consider a coincident pair of figure-of-eight microphones set with a mutual angle of 90 degrees, the left figure-of-eight will be facing 45 degrees to the left, while the right figure-of-eight is facing 45 degrees to the right, both angles relative to the forward centre axis. A sound source in the centre front of the two mics will arrive at both mics 45 degrees off-axis, and so will be captured equally by both mics but at a reduced level because

of the microphones' polar patterns. With the same level in both channels we will hear a central image between the loudspeakers. If that source moved 45 degrees right, it would be directly on-axis to the right-hand mic, and so captured at full amplitude, while the sound would arrive in the side null of the left microphone and so be virtually inaudible. Hence there is a significant level difference between the two channels and we will hear an image fully to the right on the loudspeakers. Intermediate positions of the sound source will produce corresponding image positions between the speakers.

As that example shows, coincident figure-of-eight microphones will produce a 'stereo recording angle' (SRA) of 90 degrees, meaning that the arc angle in front of the microphones to achieve the fully left and fully right image positions on



the loudspeakers is ± 45 degrees. So if you are recording an orchestra and want the back desk of violins and basses to be fully left and right, respectively, in the stereo image, the coincident figure-of-eight microphones will need to be placed in the concert hall such that the orchestra subtends an angle not greater than 90 degrees. Given the large size of a typical orchestra that generally means the mics will have to be placed quite a long way back in the hall, and that will usually mean quite an ambient recording.

In contrast, a pair of coincident cardioids with a mutual angle of 90 degrees produces an SRA of about 180 degrees, and so, for the same 'spread' of orchestra between the speakers, the microphones will have to be placed more or less directly above the conductor's head. Consequently, there will be much more direct sound and rather less hall ambience, and so the perspective may be unnaturally close!

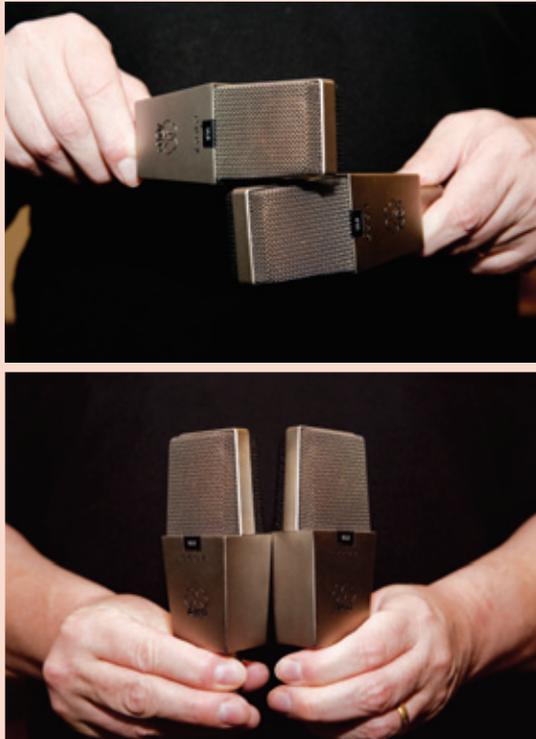
A handy way of thinking about



Spaced microphone techniques are intended to capture the difference in time between sound arriving at each microphone. Here we can see just two microphones being used quite far apart. This can leave a 'hole' in the centre of the stereo image, which is often rectified by the addition of a third, central microphone, such as in the 'Decca Tree' array.

Checking Matched Pairs

Coincident techniques rely upon very small differences in signal amplitude between the two channels to convey stereo imaging information. Consequently, it is essential to match the gains through the entire stereo signal path when configuring a coincident pair, as there are many opportunities for inaccuracies to creep in, including the mic's sensitivity, the preamp coarse and fine gain settings, and the channel, group and main faders. Also, do not assume that two microphones of the same type are inherently suited for use in a stereo array: production tolerances, minor damage, component ageing and model revisions can all alter the performance of a microphone in subtle ways, which may be irrelevant when used individually, but which can have a profound effect when used as part of a stereo array. The 10-step alignment and compatibility-checking process described below is simple, but very accurate, and is considerably faster to do than to describe!



1. To start the alignment process, mount the microphones such that the capsules are aligned vertically above one another to ensure coincidence in the horizontal plane. If this is not practical the two capsules should be mounted as close as possible to each other and arranged in such a way as to avoid creating sound shadows in each other's pickup area.

2. Next, check the signal routing and panning to make sure that each microphone feeds only one mix output channel (left or right, as necessary). Identify which microphone is connected to which channel:

the microphone connected to the left channel will eventually be facing the left-hand side of the sound stage (from the viewpoint of an audience behind the microphones). If a pair of mono channels is being used to control the stereo signal, use a fader clip or similar mechanical arrangement to ensure both faders move together.

3. If the microphones have adjustable polar patterns select the required mode on both microphones and set the mutual angle between the microphones to zero such that both capsules are initially arranged to face directly forwards. This ensures that, regardless of the incident angle of the sound source, both microphones will receive exactly the same level, which is critical to the alignment process.

In coincident arrays, the capsules should be placed one above the other, and as close together as possible. The lower-left arrangement isn't ideal, as the horizontal distance between the capsules will introduce time-of-arrival differences

4. Using an appropriate sound source (pink noise from a loudspeaker or an assistant humming at a constant level) placed directly in front (on-axis) of the microphone pair, adjust the gains of both microphone channels to provide approximately the required signal level for the recording (with the faders at their normal position). If the sound source used for this calibration is significantly quieter than that expected for the recording (for example, using a voice for alignment before a full orchestral recording) the alignment process will have to be done at a low level,

» the relative perspectives of different microphone arrays is to compare them to camera lenses. The figure-of-eights are the equivalent of a telephoto lens (they need to be placed a long way back to get everything in!) and the cardioids are a wide-angle lens, needing to be very close to fill the frame. Extending this dubious analogy a little further, coincident hyper-cardioids with a mutual angle of 90 degrees produce an SRA of about 140 degrees and are more like a standard lens, being roughly midway

between the other two.

Choosing which coincident array to use in a given situation is an iterative process with several variables. The required recording perspective, which is determined in part by the hall's acoustics, will indicate the approximate microphone array position, and that will then determine the required polar patterns to achieve the necessary image width. There is then usually some adjustment of position, mutual angle and polar patterns to optimise the sound quality.

Spaced Techniques

The spaced microphone technique deliberately captures timing and phase differences between the two channels, because sound from a source near the side of the recording area will inherently reach one microphone before the other. Depending on the distances involved, there may also be a small level difference too. Although any polar pattern could be used in a spaced array, the most common approach is to use omnidirectional



This mounting position should never be used, as the microphones are 'shadowing' one another, meaning that sounds arriving from either side are not picked up correctly.

but it is important that the channel gains are set and matched for the anticipated higher recording level. It may, therefore, be helpful to set the faders beyond their normal position, and/or to increase the monitoring level so that the voice can be heard clearly during the alignment.

5. Having set the approximate channel gains, the next stage is to match them precisely to one another. The best method is to listen to the left-right difference signal and adjust for the best null. If the loudspeaker monitoring controls provide mono and polarity reversal facilities, use them to audition the difference (S or Side) signal. If the polarity reverse facility isn't available in the monitoring section, select mono and introduce a polarity reverse on the right input channel instead to achieve the same result.

6. Adjust the (fine) gain control of the right input channel to produce the deepest null (minimum difference or Side signal level)

microphones. Indeed, this is the only stereo technique that can use a pair of omnidirectional microphones. It is often used where the greater bass extension and natural off-axis sound character of omnidirectional microphones is preferred.

If omnidirectional microphones are spaced by about 0.5m the effective SRA is roughly 100 degrees, with wider separations reducing the SRA and *vice versa*. Spacing the mics less than about 0.37m results in a lack of any real sense of stereo imaging, while separations greater

heard over the loudspeakers. Minor discrepancies in the frequency and phase response of the two microphones (or of the desk channels and monitoring system) usually prevent the signal from being nulled completely, but a very obvious deep null should still be obtained. This completes the accurate system gain alignment, so do not alter the gain controls again after this adjustment has been performed.

7. Remove the polarity reverse from the monitoring or input channel and, with the loudspeakers (still) switched to mono, confirm that there is a sharp and stable central image. Return the monitoring to normal stereo and check that the image doesn't move. If it does, there is an alignment error in the loudspeaker monitoring circuits. Check the monitoring balance control and/or the loudspeaker or amplifier input level controls.

8. Having aligned the channel gains for the front-on axis of the two microphones, it is important to check that their polar patterns are matched for all angles of incidence. The easiest technique is to ask an assistant to walk slowly around the microphone pair while talking. The quality and level of speech will vary according to the selected polar pattern of course, but since both microphones are facing in the same direction the stereo image should remain firmly in the centre of the sound stage. If it doesn't, the microphones have unmatched polar patterns and are not acceptable for use as a stereo pair.

9. Now, rotate the microphones to the required mutual angle — typically around

90 degrees — making sure that the previously identified 'left' microphone is facing the left side of the sound stage. If you find that the stereo image is the wrong way around do not swap the cables to the microphones or desk channels as this would destroy the gain alignment completely! Instead, remount (or rotate) the microphones to face the correct directions. If this is not feasible alter the desk routing (reverse the pan-pots, for example) and take more care over the initial channel identification the next time!

10. Finally, don't forget to reset the monitoring or faders back to their standard operating levels and modes having completed the alignment and other checks!

In situations where the microphones cannot be physically manipulated to face in the same direction to start this alignment procedure — perhaps because they are suspended high above the floor and have to be set to the desired mutual angle when they are rigged — the solution is to use microphones with remotely controlled polar patterns. The alignment procedure is then basically the same as above, except that, instead of rotating the microphones to face the same way, the remote control facility is used to select omnidirectional polar patterns for both capsules. In this condition both microphones should pick up sounds equally from all directions and, therefore, the preset mutual angle becomes irrelevant to the alignment process. The rest of the procedure is identical, but it will not be possible to check that the polar patterns are matched for all angles of incidence.

The accuracy of alignment is not guaranteed when using this variation of the alignment procedure, because the system that changes the polar pattern of a capacitor microphone also alters its sensitivity. However, with good-quality stereo microphones any discrepancies should be identical for both mics and any errors are, therefore, usually negligible.

than about 1m tend to leave a hole in the centre of the image: a condition that is usually rectified by the addition of a third, central microphone, such as in the Decca Tree array.

Near-Coincident Arrays

The two best-known near-coincident arrays are the ORTF and NOS arrays, which are both named after the European Broadcasting companies that invented them (Office de Radiodiffusion Télévision Française and Nederlandse Omroep

Stichting). Near-coincident arrays use directional microphones configured with a mutual angle and spaced apart, so that they capture timing, phase and amplitude differences proportional to the angle of sound incidence. The ORTF array uses cardioids with a mutual angle of 110 degrees and spaced 0.17m apart, and produces an SRA of about 95 degrees. The NOS array also uses cardioids but with a smaller 90-degree mutual angle and a larger 0.3m spacing, to produce an SRA of about 80 degrees. ■■■

PRE SCHOOL

Understanding Microphone Preamps

The best microphone in the world is useless without a way to transfer its signal to your recording system. Welcome to the wonderful world of the mic preamp...

HUGH ROBJOHN'S

The output signal produced by virtually every microphone is very small, so for all practical applications, it needs to be amplified to raise it up to the typical 'line level' that recorders and other audio equipment expect to receive. The device that does this is called a 'microphone preamplifier' or 'mic preamp'. Mic preamps are sometimes built into recorders, and are usually included in each input channel of a mixing console, but they are also available as stand-alone pieces of equipment.

A number of strategies can be employed in the design and construction of a mic preamp, as I'll explain, with each having advantages and disadvantages. In general, however, all are capable of superb performance when designed and implemented well. While there are clearly audible differences between modern budget preamps and exotic high-end units, those differences are generally quite small — far smaller than the difference made by moving a microphone relative to the source by a few inches, for example! High-end units may have wider bandwidth,



Although expensive preamps may offer a range of extra facilities, it's actually perfectly possible to make great recordings using just the preamps on a budget console.

faster slew rate (meaning that they can represent transient signals such as drum hits more faithfully), more gain, less phase shift, and more headroom than more modestly priced preamps, and sometimes these things are important... but often such benefits have relatively little impact on the

final recorded material, and it's perfectly possible to make hit records with the standard preamps in a Mackie console!

Most mic preamps are 'solid-state', which means that they perform the necessary amplification using discrete transistor or integrated op-amp gain stages, but some use vacuum tubes. Many use Class-A circuit topologies but others are Class-AB, and some are DC-coupled. Most modern preamps are transformerless, with direct differential inputs and active balanced outputs, while some —

particularly vintage designs — employ input and output transformers. Output transformers provide galvanic isolation, which helps avoid ground loops because there is only magnetic coupling (ie. no electrical connection) through the transformer, and input transformers 'step up' the signal voltage providing 'free gain', which reduces the workload of the electronics. They also limit the audio bandwidth to some extent and introduce harmonic distortion — both of which can be musically appealing in the right circumstances.

Impedance

The balanced microphone interface is designed to work as a low-impedance voltage-transfer system, where the preamp's input impedance is roughly five to 10 times higher than the microphone's source impedance. The principal benefit is that this allows very long microphone



cables to be used without the risk of signal losses: assuming decent mic cables are being used, runs of up to 100 metres can be used without any significant audible reduction in audio quality. Even longer cable runs can often be employed quite satisfactorily if necessary, though of course it makes sense to minimise the length of cable connections where possible to reduce the risk of interference and high-frequency losses.

Many preamps provide input impedances in the range of 1.2 to 2.5 k Ω , but in general, higher input impedances 'load' the source less and enable a more accurate signal transfer with reduced transient distortion, so most high-end mic preamps tend to have significantly higher input impedances. For example, the later Rupert Neve-designed preamps present well over 5k Ω , the Millennia HV3C preamp has an input impedance of nearly 7k Ω , Grace Design's M201 is over 8k Ω , and AEA's bespoke preamps for ribbon microphones present an impedance of over 18k Ω .

However, many microphones that were designed back in the 1950s and '60s, such as the ubiquitous Shure SM57, were originally designed to work with typical transformer-input mic preamps of the day, and such preamps often had input impedances as low as 300 or 600 Ω . Microphones with output transformers, especially those designed for low-impedance loading, can deliver quite significantly different tonalities depending on the loading impedance, and the same is true of dynamic types where the voice coil is connected directly to the preamp. For this reason, some preamps now feature adjustable input impedance options, allowing the user to experiment with the



High-end preamps tend to have higher input impedances that enable more accurate signal transfer. This Grace Design M201 preamp, for example, has an input impedance of over 8k Ω .

impedance loading to determine a setting that provides the desired tonality. However, there is no absolute right or wrong setting, and no damage will occur by choosing a particularly low or high impedance. Essentially, where a variable input impedance option is available, its setting should be viewed as a kind of complex EQ control, the effect of which will be different with different microphones. Only experimentation and personal preferences can determine the most appropriate setting. External impedance-varying units such as the Magneto Audio Labs VariOhm are also available for use with fixed-impedance preamps.

The tonality of microphones with electronically buffered outputs, such as the Neumann TLM range, isn't affected by load impedance (although transient distortion might be) and, in general, the higher the input impedance the better with these kinds of microphones.

Powering

All capacitor (condenser) microphones include an internal amplifier stage, which transforms the very high-impedance capsule signal environment to the low-impedance microphone cable requirement, and these internal amplifiers require power. In some electret microphones this power comes from an internal battery, and those

microphones that use valve circuitry to implement the internal amplification usually employ an external mains power supply. However, the vast majority of capacitor microphones use a form of powering known as phantom power (see the How Microphones Work article for more), so the vast majority of microphone preamps have the ability to provide this.

The most common form of phantom power is known as P48, and involves a 48V (± 4 V) DC supply connected with the positive side feeding both of the balanced audio lines (XLR pins 2 and 3) via 6.8k Ω resistors, and the negative side connected to the screen. If a microphone cable is damaged such that the screen connection is broken, phantom power will no longer work, and semi-pro microphones with an unbalanced output will effectively short-circuit the phantom supply. The maximum current available to power a connected microphone is restricted to about 14mA, but most microphones need only between 2 and 8 mA.

A low-voltage form of phantom power called P12 is also defined in the relevant international standards. This is intended for battery-powered equipment and operates with a 12V (± 3 V) DC supply, wired in the same way as P48 (but with 680 Ω coupling resistors) and with the same current supply restrictions. Some non-standard equipment is also available with 15 or 24 V variations. However, relatively few microphones will work adequately (if at all) with these low-voltage supplies, and it is important to check the microphone and preamp specifications to ensure that the available power supply is appropriate.

At the other end of the scale, Danish Pro Audio (DPA) produce a range of microphones that require a very high-voltage version of phantom power. This system works with 130V DC supplies to provide significantly greater headroom in the microphone's internal impedance converter stage, and thus accommodates extraordinarily high sound-pressure levels without distortion. It is available on a few high-end mic preamps, such as those from





» Millennia and Grace Design.

An obsolete form of powering made popular in the film and TV location sound industry, and still found occasionally on location mixers and recorders, is called Tonader or T-power (sometimes also known as A-B power). This is a simple 12V DC system connected between the 'hot' and 'cold' audio connections, but I am aware of only one specialist T-powered microphone still in production.

Finally, 'plug-in power' is commonly available on most consumer video cameras and audio recorders. This is used in conjunction with unbalanced 3.5mm microphone connectors and is intended for powering consumer electret microphones. The supply voltage is normally in the range of 1.5 to 5 V DC, with current restricted to less than about 3mA. Plug-in power is connected between the audio terminals (tip and ring) and the screen terminal (sleeve), and is not compatible with

normal phantom or T-powered microphones.

A Lot To Gain

I have already mentioned the need for adjustable gain in a mic preamplifier. A 20 to 60 dB range is sufficient for most applications, although if only high-output capacitor mics are used in close proximity to sources, as would be typical in a home studio, then 40dB of gain might be sufficient — a few preamps built into computer interfaces provide no more than this. Conversely, a gain range spanning 0 to 80 dB would cater for insensitive mics placed at a distance from quiet sources, as well as coping with sensitive mics in loud places.

The gain adjustment can be provided either by a continuous rotary control, as is usually the case in budget equipment, or by a switch arrangement of some kind, such as a rotary switch or digital increment and decrement buttons. Where the gain control is performed with a simple rotary potentiometer, it is very common to find that the relationship between the control's rotation and the applied gain is quite non-linear. Frequently, most of the gain range ends up in the last quarter of the control's rotation, and this can make it difficult or fiddly to set the gain accurately, which can be frustrating if trying to match gains for a stereo array, for example. Unfortunately there is no easy solution to this issue, which is why the more expensive preamps tend to use switched gain controls instead. Typically, the gain is switched in consistent 5 or 6 dB steps, allowing precise and repeatable gain settings to be made; there is often also a continuously adjustable fine 'trim' control as well to allow intermediate gain settings.

To accommodate very high signal levels, such as from a mic placed in a kick drum, many preamplifiers are equipped with a 'pad' or input attenuator switch. When activated, this typically reduces the level of the signal from the microphone by 15 or 20 dB before the signal is passed to the preamplifier itself. This reduces the risk of the preamplifier being overloaded, and effectively shifts the entire gain range. So



Most preamps will offer metering in some form — usually either as a traditional, analogue-style VU meter, or a 'traffic-light' LED display.

a preamplifier with a normal gain range of 20 to 60 dB would actually provide 0 to 40 dB when the 20dB 'pad' is switched on. In general there is a small noise penalty when using the pad, and although this is insignificant when the source signal is very large, it can become audible with quiet sources, so it is best not to engage the pad unless absolutely required.

Some preamplifiers also incorporate an adjustable output level control, which serves several purposes. Such a facility can be used to fade the signal level feeding the recorder up or down during a performance, if required: this 'old school' fader-riding technique was *de rigueur* to optimise the signal-to-noise performance when recording to tape, with its inherently restricted dynamic range. Alternatively, if a preamp does nice things to the sound when the input stage is overdriven, as many valve preamps do, the output control can be used to rein the signal level back to something more acceptable to the rest of the recording chain. In some cases, particularly budget, multi-purpose, analogue mixing consoles, there is also a switchable output attenuator. This works in a similar way to the input pad, but is designed to reduce the output level from nominal line level (+4dBu) to a typical microphone level (-30 or -40 dBu) so that the signal can be fed directly to the microphone input of another console or recorder without overloading it.

Other Facilities

Most microphone preamps include a switchable high-pass filter, intended



If a mic has electronically buffered outputs, such as this model from the Neumann TLM range, its performance will not be greatly affected by load impedance.

to remove unwanted low-frequency information, such as rumbles and spill from other instruments playing in the studio at the same time. Sometimes this high-pass filter has selectable 'turnover' frequencies or is continuously adjustable. It is good practice to remove unwanted low-frequency energy, as it quickly builds up with multiple sources to 'muddy' the mix.

Most mic preamps also incorporate some form of metering, such as a moving-coil or LED bar-graph VU meter, or some kind of green-orange-red traffic-light display. Microphone preamps are designed to raise the average signal level to around normal line level, +4dBu or 0VU. However, real musical audio is full of brief transient peaks that extend way above this, which is why a professional preamp won't overload or 'clip' until the level exceeds +24dBu or so. The space between the average level at +4dBu and the peak clipping point at +24dBu is called the 'headroom margin', and 20dB is a fairly typical headroom margin. VU meters and their LED equivalents tend to react too slowly (by design) to indicate brief transients; we don't tend to notice or worry about them, and that's why the scale on traditional VU meters stops at +5VU (or thereabouts). When using these kinds of meters, the aim is to adjust the preamp gain so that the signal tends to hover around the 0VU mark most of the time, with transients kicking higher. If the preamp has a traffic-light display, the aim would be to adjust the level so that the orange LED illuminates often, but the red never or only very rarely — although do read the manufacturer's handbook as different designs vary somewhat in their interpretation.

It's important to keep in mind the difference between this style of analogue meter and the digital peak-reading meters found in a computer interface (even one with built-in preamps) or DAW. These *do* display brief transients, and are scaled from 0dBFS (peak digital level) at the top down to -50dBFS or lower at the bottom. In other words, they show the full headroom margin that analogue meters omit, and this can be very misleading to the novice. When using these meters you must remember that the top half of the scale is showing the headroom margin, which is there to accommodate occasionally loud transients. The average signal level should hover around the -20dBFS mark, and peaks should rarely exceed -10dBFS. Any

higher than this and you risk clipping the A-D converters, and the whole process of recording and mixing becomes far harder! In practice, this means that the signal will appear to occupy only the bottom half of the meter's display, which looks wrong when compared to a typical analogue meter. Nevertheless, it is correct and the equipment will work perfectly well — exactly the same as traditional analogue equipment, in fact, and with the same (or better) signal-noise ratio.

Finally, many mic preamps also include an 'instrument' or 'DI' (direct inject) input. This is an unbalanced input designed to accept the signal from an electric guitar, bass or keyboard. It presents a much higher



input impedance than a normal microphone input — typically between 250kΩ and 1MΩ — and is far less sensitive (typically -30dBu or so). The idea is to allow a guitar or keyboard to be recorded directly, without the tonal character normally imposed by an instrument amplifier and loudspeaker. ■■■

APHEX
MAKING YOUR WORLD SOUND BETTER

MICROPHONE X™

USB MICROPHONE WITH ANALOG APHEX PROCESSING BUILT-IN

Microphone X sets a new standard for sound quality and features for a USB microphone by including an Aphex optical compressor and the famous Aphex Aural Exciter® and Big Bottom® processors in the analog domain. The optical compressor provides a consistent output level, while the Aural Exciter and Big Bottom processors add presence and air to the high frequencies and depth to the low frequencies in a way that no EQ ever could. Aphex & USB!

WWW.APHEX.COM

SPECS APPEAL

Understanding Product Specifications

There's a load of information on every model in this guide, but what does it actually tell you about how the microphone is likely to perform?

HUGH ROBJOHN S

When considering the purchase of a new microphone it is often useful to draw up a shortlist of potentially suitable models based on things like price and technical performance, the latter being determined from the manufacturer's published specifications. The specification data included in this guide has been gathered directly from the manufacturers and has, as far as is practicable, been standardised to ensure the fairest possible comparisons. More extensive information, including polar and frequency response plots, and comprehensive search tools can be found on the independent Microphone Data web site (found at www.microphone-data.com), many of which have links back to the SOS review of the corresponding microphones, where available.

Much of the microphone specification data is probably self-explanatory, but some terms may be less familiar, or the significance of some specifications might not be entirely obvious, so it's probably worthwhile explaining what they all mean and what the implications or relevance might be in arriving at purchasing decisions.

Product Type & Polar Pattern

The electrical technology employed in a microphone is completely independent of its acoustic mode of operation (which determines the polar response), and these two fundamental properties can be freely 'mixed and matched' by the manufacturers to achieve the desired performance and practical characteristics of each mic design.

This guide identifies a microphone's electrical technology — which is the major influence on its physical form — within eight product type categories. The list starts with 'dynamic', which in this specific case means a 'moving-coil' microphone, as opposed to a ribbon mic, which has its own identifier. Capacitor microphones

(which include electret forms) are sub-divided into three diaphragm size ranges, the reason being that this parameter determines several other important characteristics, such as sensitivity, self-noise, high-frequency response, and off-axis coloration. Larger diaphragms are more sensitive and have lower self-noise, while smaller diaphragms are less sensitive and have higher self-noise, but have a better high-end response and suffer less off-axis coloration.

Valve microphones are also identified separately, although they are always capacitor mics, usually with external power supplies. Boundary layer (usually electret capsules) or 'pressure-zone' mics have a very different physical form from all other microphones and thus deserve a separate identifier again, along with a sub-group called 'specialised' application mics, which includes drum mics, piano mics, string and brass clip-on mics and head-worn mics. These usually have bespoke mounting arrangements and/or specialised technical specifications, such as unusually high SPL ratings.

A microphone's 'polar response' derives from one of three principal operating modes: pressure operated (omni), pressure gradient (figure-of-eight) and interference tube (rifle). The additional polar responses listed are obtained by combining pressure and pressure-gradient operation in various proportions through the use of phase-shift capsule designs, resulting in sub-cardioid (or hypo-cardioid), cardioid, hyper-cardioid and super-cardioid patterns. Rifle microphones are usually based on hyper- or super-cardioid capsules with a slotted interference tube mounted in front of the diaphragm. The tube provides improved rejection of high-frequency signals located to the sides, and a longer tube maintains the narrow directionality to lower frequencies. Most boundary-layer mics are pressure-operated, but the



The specifications of each microphone are clearly listed beside each model in the guide, along with any accessories that are supplied with the microphone, and any optional accessories that can be purchased from the manufacturer.

boundary itself reduces the polar pattern to a hemisphere instead of being omnidirectional. The Ear/Sphere/Dummy head option refers to specialised binaural recording arrangements.

To conclude the basic description and identification of each microphone, the guide lists the maximum dimensions and weight, along with any supplied and optional accessories.

Dealing With Decibels

Having identified the type of microphone we are dealing with, the guide goes on to specify most of the all-important engineering parameters, starting with the bandwidth. To be of value, the frequency response should be quoted with amplitude limits (such as $\pm 3\text{dB}$) to define the extent of included amplitude variation, but not every manufacturer seems able or willing to provide this information. In any case, it is often more beneficial to examine a frequency response chart to fully appreciate the nature of any 'presence peaks', bass proximity effects, and the rate of roll-off at the bandwidth extremes, as well as to inspect the polar response plots to note how the frequency response varies for off-axis sounds. Unfortunately space prevents the inclusion of such

complete graphical information here, but the relevant plots can be found online at www.microphone-data.com.

The sensitivity of a microphone defines the relationship between the acoustic and electric domains and is specified as the number of millivolts generated when the microphone capsule is subjected to an acoustic sound pressure of one Pascal (mV/Pa). For reference, it is worth noting that the acoustic pressure value of 1Pa can also be expressed as a sound pressure level of 94dB SPL.

All electrical devices have operating boundaries beyond which no useful output is obtained and, in the case of microphones, these are the maximum sound pressure level that the microphone can transform into an electrical signal before gross distortion ensues, and also its noise floor. These parameters are normally only quoted for electrostatic microphones (capacitor and electret) in which distortion can result from capsule or electronic overloads. Again, a 'maximum SPL' figure without a defining percentage of distortion is of little use since it makes comparison with other microphones impossible. Most manufacturers now quote Max SPL at 0.5 percent THD, but where a one-percent THD value is given instead, a rough rule of thumb is to assume the quoted value is about 6dB greater than the equivalent 0.5-percent THD value.

Feel The Noise

The 'self-noise' rating is a measure of the microphone's electrical output when no audible sound is present. In electrodynamic (moving-coil and ribbon) microphones this is the sum of noise generated by random air-particle

movement near the diaphragm together with the noise generated by thermal agitation in the voice coil or ribbon itself, as well as the output transformer (if present). In some ribbon microphones this noise can, surprisingly, be higher than the self-noise of a capacitor microphone, even though it is rarely given in the specifications.

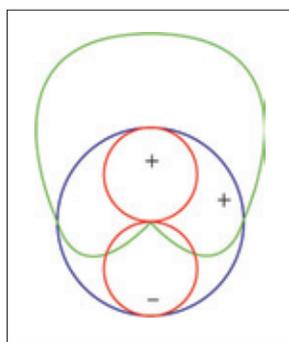
In capacitor microphones the self-noise is mostly due to the random air movement in front and behind the diaphragm. Electronic noise from the impedance converter amplifier is also present, of course, but is rarely the dominant source

Here are examples of a large-diaphragm microphone (left) and a small-diaphragm mic (right). Large-diaphragm models tend to be more sensitive and have less self-noise, while small-diaphragm mics may offer reduced off-axis coloration.



in modern solid-state microphones (although it can be significant in vintage and valve microphones). The self-noise is expressed as an equivalent acoustic noise value (dBA), with an A-weighting that takes account of the audibility of different frequencies in low-level sounds. Essentially this specification provides the acoustic sound level that would produce the same electrical output signal as the inherent noise produced by the microphone. Subtracting the self-noise figure from the max SPL figure provides an indication of the dynamic range capability of the microphone.

The 'output impedance' and 'recommended load' parameters are specified in Ohms (Ω) and document the ability of the microphone to 'drive' the cable (lower output impedance means a better ability to drive



The polar pickup pattern(s) that a particular microphone is capable of producing will be listed in this guide. This diagram shows a cardioid pattern (the green line), an omnidirectional pattern (in blue), and the figure-of-eight (shown in red).

a long cable), and the minimum load necessary to ensure the signal is received intact. Higher load impedances at the microphone preamp are usually beneficial, while lower load impedances can cause frequency-response anomalies and transient distortion.

All capacitor and electret microphones include an impedance-converter amplifier stage that requires power. Some ribbon and moving-coil microphones include a buffer amplifier that also requires power. This power can be provided in many forms, such as a stand-alone mains supply for

most valve microphones, internal batteries, or some form of powering transmitted via the microphone's output cable. Of these, the most common is phantom power, although this is available in at least two forms (48V and 12V), and while most microphones require standard 48V phantom (P48), some can accommodate a very wide range (eg. P9-52V). There are also two alternative powering forms: the now-obsolete T-power (also called Tonader or AB powering), and 'plug-in power', which is found on a lot of budget electret mics and portable domestic recorders. The amount of supply current required by the microphone is also listed in the guide, as this affects battery life in portable equipment and indicates the potential stress placed upon a mixing console's phantom supply. The maximum current allowed in the P48 specification is 10mA, but ideally a microphone shouldn't require more than 2 or 3 mA.

Most microphones employ a male XLR-3 output connector, but stereo or dual-output mics usually use an XLR-5, and specialist multi-channel, valve and vintage microphones can use a variety of other connectors.

Many capacitor and electret microphones are equipped with switches to introduce an attenuator to increase the maximum SPL capability, and a high-pass filter. The filter may be designed to compensate for the proximity effect in directional microphones placed close to the sound source, or may be intended to reduce the amplitude of unwanted low-frequency signals, such as mechanical vibration and wind noise. The former type tends to be less steep and start at a higher frequency than the latter. ■■■

DYNAMIC MICROPHONES

Dynamic mics encompass both moving-coil microphones and ribbon microphones, but as the two types are so different, we've given the ribbon mics their own dedicated section. Moving-coil dynamic mics might seem like the poor relation of the capacitor microphone — in that they tend to be less sensitive and have less high-frequency 'reach' — but they can still be the best choice in some situations. Their direct, punchy sound makes them popular for close-miking drums and guitar amps, while some rock and urban artists prefer them for recording vocals. Moving-coil mics also have the advantage of being physically tough, they require no phantom power, and many models can handle extremely high SPLs.



AKG

Founded in Vienna in 1947, AKG Acoustics are a manufacturer of microphones, headphones, wireless audio systems and related accessories for professional and consumer markets. Some of their vintage models, like the C12, are both rare and desirable, while their current models, including the C414, can be found in studios around the world.

HQ: www.akg.com

D5

\$99

Polar: Supercardioid
Dim: 51 x 285 (mm)
Wght: -
Freq: 70Hz - 20kHz
Out Sens: 2.6mV/Pa
Max SPL: 147dB
Self Noise: 18dBA
Out Imp: <600Ω
Rec Load: >20000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective bag, stand adaptor
OA: -



D7

\$179

Polar: Supercardioid
Dim: 51 x 185 (mm)
Wght: 340g
Freq: 70Hz - 20kHz
Out Sens: 2.6mV/Pa
Max SPL: 147dB
Self Noise: 18dBA
Out Imp: <600Ω
Rec Load: >20000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Replacement inner windscreen, protective case, stand adaptor
OA: -



D40

\$99

Polar: Cardioid
Dim: 44 x 104 (mm)
Wght: 245g
Freq: 75Hz - 20kHz
Out Sens: 4mV/Pa
Max SPL: 144dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: >10000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Case, adapter plate
OA: -



D230 \$199

Polar: Omnidirectional
Dim: 50 x 218 (mm)
Wght: 225g
Freq: 40Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 320Ω
Rec Load: >1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Stand adaptor
OA: Windscreen



D12 VR \$499

Polar: Cardioid
Dim: -
Wght: 810g
Freq: 17Hz - 17kHz
Out Sens: 1.2 mV/Pa
Max SPL: 164dB
Self Noise: -
Out Imp: -
Rec Load: 1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



D112 \$199

Polar: Cardioid
Dim: 70 x 115 (mm)
Wght: 380g
Freq: 20Hz - 17kHz
Out Sens: 1.8mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 210Ω
Rec Load: >600Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand adaptor, carry case
OA: -



Audix

Founded in 1984 in California, Audix are a well-respected manufacturer of microphones for stage, studio and specialised purposes. Their dynamic mics, in particular, are very popular with engineers.

HQ: www.audixusa.com

i5 \$150

Polar: Cardioid
Dim: 38 x 142 (mm)
Wght: 183g
Freq: 50Hz - 16kHz
Out Sens: 1.5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Heavy-duty nylon mic clip (MC1), carrying pouch (P1)
OA: Foam windscreen (WS-i5), various mounts

SOS Review (May 2007)
www.soundonsound.com/sos/may07/articles/audixi5.htm



OM7 \$310

Polar: Cardioid
Dim: 53 x 176 (mm)
Wght: 307g
Freq: 48Hz - 19kHz
Out Sens: 0.8mV/Pa
Max SPL: 144dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Heavy duty nylon clip (MC1), carrying pouch (P1)
OA: Foam windscreen (WS357)



OM2
\$133

Polar: Hypercardioid
Dim: 176mm
Wght: 307g
Freq: 50Hz - 16kHz
Out Sens: 1.6mV/Pa
Max SPL: 140dBA
Self Noise: -
Out Imp: 290Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



OM3
\$180

Polar: Hypercardioid
Dim: 176mm
Wght: 307g
Freq: 50Hz - 18kHz
Out Sens: 1.6mV/Pa
Max SPL: 144dBA
Self Noise: -
Out Imp: 290Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



OM5
\$235

Polar: Hypercardioid
Dim: 176mm
Wght: 330g
Freq: 48Hz - 19kHz
Out Sens: 2mV/Pa
Max SPL: 144dBA
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



OM6
\$295

Polar: Hypercardioid
Dim: 176mm
Wght: 307g
Freq: 40Hz - 19kHz
Out Sens: 1.5mV/Pa
Max SPL: 144dBA
Self Noise: -
Out Imp: 290Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



f50
\$65

Polar: Cardioid
Dim: 169mm
Wght: 312g
Freq: 50Hz - 16kHz
Out Sens: 1.8mV/Pa
Max SPL: 138dBA
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



D2
\$195

Polar: Hypercardioid
Dim: 100mm
Wght: 128g
Freq: 68Hz - 18kHz
Out Sens: 1.2mV/Pa
Max SPL: 144dB
Self Noise: -
Out Imp: 280Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



D4
\$265

Polar: Hypercardioid
Dim: 100mm
Wght: 128g
Freq: 40Hz - 18kHz
Out Sens: 1.4mV/Pa
Max SPL: 144dB
Self Noise: -
Out Imp: 280Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



FireBall
\$220

Polar: Cardioid
Dim: 77.5mm
Wght: 128g
Freq: 50Hz - 16kHz
Out Sens: 1.5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 280Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



Reminder.

This is the m101 microphone preamplifier from Grace Design. Maybe you own one, or perhaps you have heard or read about it. We originally introduced it way back in 2000. Since then we have sold thousands upon thousands of them.

Not simply because they are affordable, but because they are one of the best values in pro audio. While its big siblings are in service in many of the most illustrious recording facilities in the world, the m101 dutifully serves to make any recording sound better, regardless of budget.

For relatively little money, the m101 gives you one channel of gloriously detailed, open, musical mic amplification. With it, a thoughtfully placed microphone, and an honest musical idea, **YOU** can make a beautiful recording.



GRACE
DESIGN

www.gracedesign.com

f2
\$115

Polar: Hypercardioid
Dim: 104mm
Wght: 247g
Freq: 52Hz - 15kHz
Out Sens: 2.0mV/Pa
Max SPL: 139dB
Self Noise: -
Out Imp: 580Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



f6
\$180

Polar: Hypercardioid
Dim: 121mm
Wght: 311g
Freq: 40Hz - 16kHz
Out Sens: 1.2mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 580Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



f5
\$115

Polar: Hypercardioid
Dim: 145mm
Wght: 283g
Freq: 55Hz - 15kHz
Out Sens: 2.2mV/Pa
Max SPL: 137dB
Self Noise: -
Out Imp: 580Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



Avantone

Avantone are best known for their Mixcube single-driver loudspeakers, but they also make a range of high-quality solid-state and valve condenser microphones, as well as dynamic drum mics and ribbon mics.

HQ: www.avantonepro.com

ADM
\$79

Polar: Cardioid
Dim: -
Wght: 350g
Freq: 50Hz - 16kHz
Out Sens: -
Max SPL: 145dB
Self Noise: -
Out Imp: 520Ω
Pwr Type: -
Alt Pwr: -
Con via: XLR-3 (M)
SC: -
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: -



ATOM
\$89

Polar: Cardioid
Dim: -
Wght: 40g
Freq: 30Hz - 15kHz
Out Sens: -
Max SPL: 145dB
Self Noise: -
Out Imp: 220Ω
Pwr Type: -
Alt Pwr: -
Con via: XLR-3 (M)
SC: -
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: -



MONDO
\$125

Polar: Cardioid
Dim: -
Wght: 50g
Freq: 20Hz - 15kHz
Out Sens: -
Max SPL: 145dB
Self Noise: -
Out Imp: 210Ω
Pwr Type: -
Alt Pwr: -
Con via: XLR-3 (M)
SC: -
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: -



Beyerdynamic

Beyerdynamic have been an industry leader in the design and manufacture of premium-grade microphones, headphones and wireless microphone systems since 1924. Their microphone range covers pretty much every type, including dynamic, capacitor and ribbon models.

USA: www.americanmusicsounds.com

HQ: www.beyerdynamic.com

M88TG \$399

Polar: Hypercardioid
Dim: 49 x 181 (mm)
Wght: 320g
Freq: 30Hz - 20kHz
Out Sens: 2.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: >1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp (MKV 8), padded pouch
OA: Pop shield, windshield



M99 \$499

Polar: Hypercardioid
Dim: 56 x 163 (mm)
Wght: 421g
Freq: 30Hz - 18kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 280Ω
Rec Load: >1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Elastic suspension (EA90), padded pouch
OA: Windscreen



M160 \$699

Polar: Hypercardioid
Dim: 38 x 156 (mm)
Wght: 156g
Freq: 40Hz - 18kHz
Out Sens: 1.0mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: >1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp (MKV 8), padded pouch
OA: Windscreen, elastic suspension

Reviewed in SOS "Mics On Test" (November 2007 & December 2007)
www.soundonsound.com/sos/nov07/articles/ribbonmics1.htm and www.soundonsound.com/sos/dec07/articles/ribbonmicst2.htm



M201TG \$299

Polar: Hypercardioid
Dim: 24 x 160 (mm)
Wght: 220g
Freq: 40Hz - 18kHz
Out Sens: 1.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: >1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp (MKV 8), windshield (WS 101), padded pouch
OA: Elastic suspension



TG i50D \$199

Polar: Cardioid
Dim: 41 x 164 (mm)
Wght: 322g
Freq: 50Hz - 17kHz
Out Sens: 2.4mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: >2000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp, padded pouch
OA: -



TG V30DS \$49

Polar: Supercardioid
Dim: 49 x 182 (mm)
Wght: 315g
Freq: 30Hz - 15kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case, XLR to XLR cable (4.5m)
OA: Pop shield (PS20/40)



TG V35DS \$59

Polar: Supercardioid
Dim: 50 x 186 (mm)
Wght: 305g
Freq: 30Hz - 18kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case, XLR to XLR cable (4.5m)
OA: Pop shield (PS20/40)



TG V70D
\$249

Polar: Hypercardioid
Dim: 54 x 185 (mm)
Wght: 345g
Freq: 25Hz - 18kHz
Out Sens: 3.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 280Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Wind shield (WS59).
Microphone also available in a switched version: TG V70DS



TG V71D
\$249

Polar: Hypercardioid
Dim: 54 x 185 (mm)
Wght: 345g
Freq: 35Hz - 18kHz
Out Sens: 3.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 420Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Wind shield (WS59)



TG V50D
\$149

Polar: Cardioid
Dim: 54 x 185 (mm)
Wght: 270g
Freq: 50Hz - 17kHz
Out Sens: 2.4mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Wind shield (WS59).
Microphone also available in a switched version: TG V50DS



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics, Blue Microphones products offer innovative design and high performance.

HQ: www.bluemic.com

enCORE 200
\$149.99

Polar: Cardioid
Dim: 28 x 185 (mm)
Wght: 400g
Freq: 50Hz - 16kHz
Out Sens: 2.25mV/Pa
Max SPL: 147dB
Self Noise: -
Out Imp: 25Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Soft-grip microphone clip, soft-lined storage pouch
OA: -



Electro-Voice

Electro-Voice (commonly referred to as EV) are a manufacturer of audio equipment, including microphones, amplifiers and loudspeakers. Electro-Voice market their products for use in small or large concert venues, broadcasting, houses of worship, and retail situations.

HQ: www.electrovoice.com

N/D267a
\$79

Polar: Cardioid
Dim: 52 x 181 (mm)
Wght: 238g
Freq: 45Hz - 15kHz
Out Sens: 2.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



N/D767a
\$129

Polar: Supercardioid
Dim: 52 x 181 (mm)
Wght: 260g
Freq: 35Hz - 22kHz (close), 70Hz - 22kHz (far)
Out Sens: 3.1mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



N/D967
\$149

Polar: Supercardioid
Dim: 52 x 173 (mm)
Wght: 260g
Freq: 50Hz - 13kHz (close), 120Hz - 13kHz (far)
Out Sens: 4mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PL80a
\$99

Polar: Supercardioid
Dim: 51 x 189 (mm)
Wght: 333g
Freq: 80Hz - 16kHz
Out Sens: 2.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PL80c
\$99

Polar: Supercardioid
Dim: 51 x 189 (mm)
Wght: 333g
Freq: 80Hz - 16kHz
Out Sens: 2.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PL80c
\$99

Polar: Supercardioid
Dim: 51 x 189 (mm)
Wght: 333g
Freq: 80Hz - 16kHz
Out Sens: 2.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



RE320
\$299

Polar: Cardioid
Dim: 54 x 217 (mm)
Wght: 681g
Freq: 30Hz - 18kHz (kick-drum), 45Hz - 18kHz (general)
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Foam windscreen (WSPL-2), isolation shockmount (SASM-20), isolation mount (309A)



N/D267as
\$89

Polar: Cardioid
Dim: 52 x 181 (mm)
Wght: 238g
Freq: 45Hz - 15kHz
Out Sens: 2.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



N/D367s
\$99

Polar: Cardioid
Dim: 52 x 181 (mm)
Wght: 258g
Freq: 30Hz - 22kHz (close), 60Hz - 22kHz (far)
Out Sens: 3mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



»

RE16
\$339

Polar: Supercardioid
Dim: 45 x 187 (mm)
Wght: 227g
Freq: 80Hz – 15kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: Stand adapter, foam
windscreen pop filter



RE20
\$449

Polar: Cardioid
Dim: 54 x 217 (mm)
Wght: 737g
Freq: 45Hz – 18kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: Suspension
shockmount, stand
adaptor, replacement
suspension cords, stand
adaptor, windscreen pop
filter



RE27
\$499

Polar: Cardioid
Dim: 54 x 217 (mm)
Wght: 709g
Freq: 45 Hz – 20kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: Suspension
shockmount, stand
adaptor, replacement
suspension cords, stand
adaptor, windscreen pop
filter



N/D468
\$149

Polar: Supercardioid
Dim: 52 x 115 (mm)
Wght: 190g
Freq: 30Hz - 22kHz
(close), 60Hz - 22kHz
(far)
Out Sens: 3.1mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



N/D478
\$89

Polar: Cardioid
Dim: 41 x 170 (mm)
Wght: 247g
Freq: 45Hz - 15kHz
(close), 100Hz - 15kHz
(far)
Out Sens: 2.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



N/D868
\$199

Polar: Cardioid
Dim: 60 x 133 (mm)
Wght: 295g
Freq: 20Hz - 10kHz
Out Sens: 1mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Golden Age Project

Golden Age Project are a spin-off of the high-end pro audio distribution activities of Golden Age Music, a Swedish company founded by Bo Medin in 1982. Golden Age Project offer affordable vintage-style products.

USA: www.raddist.com
HQ: www.goldenagemusic.se

D2
\$149.99

Polar: Cardioid
Dim: 75 x 195 (mm)
Wght: 800g
Freq: 50Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 120 and 210 Hz
Slope: -
SA: Plastic case
OA: -



Granelli Audio Labs

Granelli Audio Labs were started in 2009 by John Grant of Secret Sound Studio and Tony Correlli of The Deep End Studio in Baltimore, USA. One day, they modified a Shure SM57 to make it easier to position in a crowded drum kit and soon realised its potential. After many designs, tests and refinements, the G5790 was born, and is now used by musicians all over the world.

HQ: www.granelliaudiolabs.com

G5790 \$149.99

Polar: Cardioid
Dim: -
Wght: 284g
Freq: 40Hz - 15kHz
Out Sens: 1.6mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
rated, 300Ω
actual
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, carrying bag
OA: -



JTS Professional

JTS Professional, founded in 1982, are a Taiwan-based manufacturer of professional wired and wireless microphones, wireless, conference and tour-guide systems, headphones and earphones. JTS have official distributors in over 70 countries, and are also an OEM supplier of tailor-made products.

HQ: www.jtsusa.us

NX-8 \$89.95

Polar: Cardioid
Dim: 52 x 181 (mm)
Wght: 245g
Freq: 50Hz - 16.5kHz
Out Sens: 2.5mV/Pa
Max SPL: 148dB
Self Noise: 19dBA
Out Imp: 600Ω
Rec Load: >2000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: PVC bag, microphone holder
OA: Cable



LD Systems

LD Systems is a brand name of the Adam Hall Group, associated with a wide range of value-for-money audio products over the last decade. They offer a range of Chinese-sourced microphones, with German assembly and quality control, incorporating both moving-coil and capacitor models for stage and studio.

HQ: www.ld-systems.com

D1USB €69 (US price not available)

Polar: Cardioid
Dim: 48 x 195 (mm)
Wght: 435g
Freq: 50Hz - 16kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M) and USB
Pad: -
Filt Freq: -
Slope: -
SA: Bag, clamp, USB cable 3m, tripod stand
OA: -



D1001 €49 (US price not available)

Polar: Supercardioid
Dim: 52 x 165 (mm)
Wght: 270g
Freq: 50Hz - 16kHz
Out Sens: 1.9mV/Pa
Max SPL: 134dB
Self Noise: -
Out Imp: 300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



D1057 €49 (US price not available)

Polar: Cardioid
Dim: 31 x 155 (mm)
Wght: 250g
Freq: 50Hz - 16.5kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



»

D1020

€69 (US price not available)

Polar: Hypercardioid
Dim: 49 x 190 (mm)
Wght: 280g
Freq: 50Hz - 16kHz
Out Sens: -
Max SPL: 145dB
Self Noise: -
Out imp: 370Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Bag, clamp, thread adapter
OA: -



D1057

€49 (US price not available)

Polar: Cardioid
Dim: 31 x 155 (mm)
Wght: 250g
Freq: 50Hz - 16.5kHz
Out Sens: -
Max SPL: 145dB
Self Noise: -
Out imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Lewitt

Founded in 2010, Vienna-based Lewitt produce high-performance microphones designed to deliver clarity and fidelity, and to work in a variety of demanding studio and live applications. Lewitt build recording, wireless, performance and drum microphones.

HQ: www.lewitt-audio.com

DTP 340 REX \$179

Polar: Cardioid
Dim: 71 x 158 (mm)
Wght: 740g
Freq: 20Hz - 16kHz
Out Sens: 2.5mV/Pa
Max SPL: 149dB
Self Noise: -
Out Imp: <500Ω
Rec Load: >1500Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Leather bag
OA: -



DTP 640 REX \$329

Polar: Cardioid
Dim: 71 x 158 (mm)
Wght: 755g
Freq: 20Hz - 20kHz
Out Sens: 2.5mV/Pa and 3.6mV/Pa
Max SPL: 168dB
Self Noise: 26dBA
Out Imp: <200Ω
Rec Load: >1000Ω
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M), XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Leather bag, audio cable
OA: -



MTP 440 DM \$89

Polar: Cardioid
Dim: 39 x 159 (mm)
Wght: 280g
Freq: 60Hz - 16kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: <500Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Leather bag, microphone clip
OA: -



MTP 540 DM \$99

Polar: Cardioid
Dim: 49 x 175 (mm)
Wght: 330g
Freq: 60Hz - 16kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: <300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR

Pad: -
Filt Freq: -
Slope: -
SA: Leather bag, microphone clip
OA: -



MTP 840 \$249

Polar: Supercardioid
Dim: 183mm
Wght: 326g
Freq: 40Hz - 18kHz
Out Sens: 2.5mV/Pa, 5mV/Pa, 10mV/Pa
Max SPL: 129dB, 135dB, 156 dB
Self Noise: 9dBA
Out Imp: 600Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: Optional P48

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: 100Hz, 250Hz
Slope: -
SA: Shockmount, leather bag
OA: -



Miktek

Miktek produce precision microphones, which are handmade in Nashville, USA. The company are inspired by iconic mics of the past, and develop capsules and unique circuits to capture sound. Using the very latest in audio technology, Miktek's designs are approved by some of the world's most acclaimed sound engineers.

HQ: www.miktekaudio.com

PM9 \$199

Polar: Supercardioid
Dim: 57 x 177 (mm)
Wght: 500g
Freq: 50Hz - 19kHz
Out Sens: 1.4mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 300Ω
Rec Load: 300Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Individual serialised frequency response graph, protective case, microphone clip
OA: -



Peavey

Peavey are one of the largest independently owned suppliers of musical instruments and professional sound equipment in the world. Established by Hartley Peavey in 1965, Peavey hold 130 patents in musical instrument designs and audio technology. Their products can be found in government buildings, theme parks, airports, stadiums and more.

HQ: www.peavey.com

PVM 45ir \$84.99

Polar: Supercardioid
Dim: 38 x 140 (mm)
Wght: 295g
Freq: 20Hz - 18kHz
Out Sens: 1.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Carrying pouch, microphone clip, stand adaptor
OA: Hardshell case, PV series low Z cables (7.6m)



Prodipe

French company Prodipe are known for making monitors with ribbon tweeters, as well as manufacturing a wide range of low-cost microphones for stage and studio use.

HQ: www.prodipe.com

TT1 \$49

Polar: Cardioid
Dim: 48 x 185 (mm)
Wght: -
Freq: 50Hz - 15kHz
Out Sens: 3.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clamp, bag
OA: -

SOS Review (October 2010)
www.soundonsound.com/sos/oct10/articles/prodipe-tt1.htm



MC1 \$89

Polar: Uni-directional
Dim: -
Wght: -
Freq: 50Hz - 16kHz
Out Sens: 1.7mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 400Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Mic clip
OA: -



Red5 Audio

Red5 Audio, formed in 2001, are a small Scottish company who manufacture microphones for both the professional and home enthusiast markets, and aim to provide excellent customer service. They also make a range of mic accessories, including shockmounts and pop shields.

HQ: www.red5audio.com

RVD30

£37 (US price not available)

Polar: Hypercardioid
Dim: 45 x 185 (mm)
Wght: 375g
Freq: 40Hz - 16kHz
Out Sens: 2.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Dual-threaded stand clip
OA: -



RØDE

Rode are based in Sydney, Australia, where all their microphones are designed, and where the majority of their manufacturing takes place. They make all kinds of mics, from valve and solid-state condensers to lapel and video microphones.

HQ: www.rodemic.com

M1

\$99

Polar: Cardioid
Dim: 51 x 171 (mm)
Wght: 360g
Freq: 75Hz - 18kHz
Out Sens: 1.58mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 320Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand mount (RM1), zip case (ZP1), lifetime warranty
OA: -



Podcaster

\$229

Polar: Cardioid
Dim: 56 x 215 (mm)
Wght: 610g
Freq: 40Hz - 14kHz
Out Sens: 3mV/Pa
Max SPL: 115dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -
SC: -
Con via: USB

Pad: -
Filt Freq: -
Slope: -
SA: Stand mount (RM2), 3m USB cable, 10 year warranty
OA: Shockmount (PSM1), boom arm (PSA1), windshield (WS2), zip case (ZP1)



Procaster

\$229

Polar: Cardioid
Dim: 53 x 214 (mm)
Wght: 695g
Freq: 75Hz - 18kHz
Out Sens: 1.58mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 320Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand mount (RM2), 3m USB cable, 10 year warranty
OA: Shockmount (PSM1), boom arm (PSA1), windshield (WS2), zip case (ZP1)



M1S

\$115

Polar: Cardioid
Dim: 171 x 51.5 (mm)
Wght: 360g
Freq: 75Hz - 18kHz
Out Sens: 1.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 320Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Zip case, standmount, screwdriver, 10 year warranty
OA: -



Reporter

\$199

Polar: Omnidirectional
Dim: 272.5 x 41.5 (mm)
Wght: 256g
Freq: 70Hz - 15kHz
Out Sens: 1.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone 'flag', zip case, 10 year warranty
OA: Standmount



Sennheiser

Longstanding German company Sennheiser make microphones for a wide range of purposes, including conferences, aviation, and music recording and performance. Their high-end MKH condensers employ some innovative capsule technology, and their wireless mic systems include vocal mics, headset mics and lavalier models.

HQ: www.sennheiserusa.com

e906 \$189.95

Polar: Supercardioid
Dim: 55 x 134 (mm)
Wght: 140g
Freq: 40Hz - 18kHz
Out Sens: 2.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Pouch, microphone clip
OA: -



e935 \$169.95

Polar: Cardioid
Dim: 47 x 181 (mm)
Wght: 330g
Freq: 40Hz - 18kHz
Out Sens: 2.8mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: 1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Pouch, microphone clamp (MZQ 800)
OA: -



e945 \$219.95

Polar: Supercardioid
Dim: 47 x 186 (mm)
Wght: 330g
Freq: 40Hz - 18kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: 1000Ω
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Pouch, microphone clamp (MZQ 800)
OA: -



Shure

American company Shure make some of the most widely used dynamic mics, including the SM57 and SM58. They also manufacture high-end studio condensers, as well as wireless mic kits.

HQ: www.shure.com

Beta 52A \$189

Polar: Cardioid
Dim: 96 x 114 (mm)
Wght: 605g
Freq: 20Hz - 10kHz
Out Sens: 0.6mV/Pa
Max SPL: 174dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Storage bag, thread adaptor
OA: -



SM7B \$349

Polar: Cardioid
Dim: 96 x 190 (mm)
Wght: 765g
Freq: 50Hz - 20kHz
Out Sens: 1.12mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Switch cover plate, close-talk windscreen
OA: Desk stand



SM58
\$99

Polar: Cardioid
Dim: 51 x 162 (mm)
Wght: 298g
Freq: 50Hz - 15kHz
Out Sens: 1.85mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Swivel stand adaptor, storage bag
OA: Windscreen (6 colours available), desk stand, shock stopper, isolation mount, dual mount



SM57
\$99

Polar: Cardioid
Dim: 32 x 157 (mm)
Wght: 284g
Freq: 40Hz - 15kHz
Out Sens: 1.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Swivel stand adaptor, storage bag
OA: Locking windscreen, desk stand, shock stopper, isolation mount, dual mount



Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

USA: www.proaudiodesign.com
HQ: www.sontronics.com

STC-80
\$149

Polar: Cardioid, supercardioid
Dim: 47 x 190 (mm)
Wght: 426g
Freq: 50Hz - 15kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: <600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, aluminium flight case, lifetime warranty, free download of Toontrack EZ Drummer Lite
OA: Pop shield (ST-POP), pro audio cables with Neutrik XX connectors, pro microphone stand)



Telefunken-Elektroakustik

Telefunken Elektroakustik manufacture microphones ranging from replicas of historic vintage mics to their R-F-T series and dynamic models for live use. Their microphones are hand crafted in the USA.

HQ: www.telefunken-elektroakustik.com

M80
\$249

Polar: Cardioid
Dim: 48 x 184 (mm)
Wght: 371g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Leather bag, microphone clip
OA: -



M81
\$249

Polar: Cardioid
Dim: -
Wght: -
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, bag
OA: -



Dynamic Series M82
\$399

Polar: Cardioid
Dim: 63 x 155 (mm)
Wght: 635g
Freq: 25Hz - 18kHz
Out Sens: 1.85mV/Pa
Max SPL: 160dB
Self Noise: -
Out Imp: 300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: 350Hz
Slope: -
SA: Microphone clip, leather carrying case
OA: -





Scarlett Range

The Focusrite sound on USB 2.0

Focusrite have been designing the finest microphone preamplifiers since 1985 when Sir George Martin commissioned no-holds-barred preamps for his Air Studio facility in London.

And so, the Focusrite DNA was formed, and today lies at the heart of our Scarlett range of USB 2.0 interfaces. Combined with class-leading digital conversion and rock-solid driver stability, your sound could not be in safer hands.

Whatever your audio recording needs, there's a Focusrite Scarlett interface for you. All you have to do is choose.



Scarlett 2i2

Scarlett 2i4

Scarlett 6i6

Scarlett 18i8

Scarlett 18i20

Focusrite mic pres	2	2	2	4	8
Analog ins	2	2	4	8	8
Analog outs	2	4	4	6	10
Digital ins	-	-	2	10	10
Digital outs	-	-	2	2	10
Headphone outs	1	1	2	2	2
ADAT I/O	N	N	N	In Only	Y
S/PDIF	N	N	Y	Y	Y
MIDI I/O	N	Y	Y	Y	Y
Analog input pads	-	2	2	4	2
48V phantom power	Y	Y	Y	Y	Y
Max sample rate	96kHz	96kHz	96kHz	96kHz	96kHz
Max bit depth	24-bit	24-bit	24-bit	24-bit	24-bit
Bus powered	Y	Y	N	N	N
Scarlett Plug-in Suite	Y	Y	Y	Y	Y
Routing software	N	N	Y	Y	Y
Direct Monitor	Y	Y	Y*	Y*	Y*

CAPACITOR MICROPHONES: LARGE-DIAPHRAGM

Large-diaphragm capacitor microphones (>20mm) are a popular choice for vocal recording as many models have frequency responses tuned to colour the sound in a flattering way, rather than simply passing on exactly what they hear. They are also used in studios to record instruments such as pianos, drum kits and acoustic guitars. Though they are not always the best choice for instruments, their individual sonic flavours sometimes bring about magical results. Both valve (see the Valve Microphones section of this guide) and solid-state models are available. There are also numerous multi-pattern models, which are a good choice if you can't budget for a whole locker of different microphones.



ADK & 3 Zigma

Founded by Steinway piano expert and musician Lawrence Vilella in 1998, ADK aim to produce high-quality mics at affordable prices. In addition to their many large-diaphragm condensers, they also supply individual mic capsules, and upgrade mics to their users' specifications.

Part of the same company, 3 Zigma Audio create a modular 'hybrid' system of microphone capsule modules and ultra-low-noise head-amp modules. This system allows both large- and small-diameter capsules to work with a variety of FET and valve head-amps. The head-amps listed here show the specifications available when used with the different bodies available.

HQ: www.adkmic.com
HQ: www.hybridmic.com

C-Lol-12 TL/FX \$549/\$597

Polar: Cardioid
Dim: 19 x 127 (mm)
Wght: 360g
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa / 17.8mV/Pa
Max SPL: 137dBA / 151dBA
Self Noise: 7dBA / 9dBA
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Pad: None / Two-Way -8dB/-16dB
Con via: XLR-3 (M)
Slope: -
Filt Freq: -
SA: -
OA: -



C-Lol-47 TL/FX \$549/\$597

Polar: Cardioid
Dim: 19 x 127 (mm)
Wght: 360g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa / 12.6mV/Pa
Max SPL: 139dBA / 154dBA
Self Noise: 9dBA / 12dBA
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Pad: No / Two way -8dB/-16dB

Con via: XLR-3 (M)
Slope: -
Filt Freq: -
SA: -
OA: -

**For picture see:
C-Lol-67 TL/FX**

C-Lol-67 TL/FX \$549/\$597

Polar: Cardioid
Dim: 19 x 127 (mm)
Wght: 360g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa / 14.1mV/Pa
Max SPL: 140dBA / 153dBA
Self Noise: 10dBA / 11dBA
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Pad: No / Two way -8dB/-16dB
Con via: XLR-3 (M)
Slope: -
Filt Freq: -
SA: -
OA: -



C-Lol-251 TL/FX \$549/\$597

Polar: Cardioid
Dim: 19 x 127 (mm)
Wght: 360g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa / 15.8mV/Pa
Max SPL: 138dBA / 152dBA
Self Noise: 8dBA / 10dBA
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Pad: No / Two way -8dB/-16dB

Con via: XLR-3 (M)
Slope: -
Filt Freq: -
SA: -
OA: -

**For picture see:
C-Lol-67 TL/FX**

Audiophile A6 \$239

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 131dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case
SOS Review (February 2008)
www.soundonsound.com/sos/feb08/articles/adka6s7.htm



Audiophile A-51 Mk5.1 \$189

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case



Audiophile S-51 Mk5.2 \$189

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB/140dB (0dB/-10dB switchable pad)
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: Flat/100Hz
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case



Audiophile Hamburg Mk8 \$349

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 126dB/140dB (0dB/-14dB switchable pad)
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -14dB
Filt Freq: Flat/89Hz
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case



Audiophile Vienna Mk8
\$349

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 126dB/140dB (0db/-14dB switchable pad)
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -14dB
Filt Freq: -
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case



Odin
\$299

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 132dB (0dB pad), 140dB (-8dB pad), 150dB (-18dB pad)
Self Noise: 15dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -8/-18dB switchable
Filt Freq: Flat/100Hz/150Hz
Slope: -
SA: Ringmount, piano-black wood jewel case
OA: Black heavy-duty elastic suspension system (Super-Mount), Pro+ Kit including Super-Mount, pop filter, Neutrik XLR, foam windscreen, flight case



AKG

Founded in Vienna in 1947, AKG Acoustics are a manufacturer of microphones, headphones, wireless audio systems and related accessories for professional and consumer markets. Some of their vintage models, like the C12, are both rare and desirable, while their current models, including the C414, can be found in studios around the world.

HQ: www.akg.com

C414-XLS
\$1049

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 55 x 160 (mm)
Wght: 300g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 158dB
Self Noise: 6dBA
Out Imp: <200Ω
Rec Load: >2.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)
Pad: -6/-12/-18 dB switchable
Filt Freq: 40/80/160 Hz
Slope: 12/12/6 dB/Oct
SA: Shockmount, pop screen, windscreen, flight case
OA: Factory-matched stereo set including mounting bar

SOS Review (November 2004)
www.soundonsound.com/sos/nov04/articles/akgmics.htm



C414-XLII
\$1099

Polar: Cardioid, supercardioid, hypercardioid
Dim: 55 x 160 (mm)
Wght: 300g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 158dB
Self Noise: 6dBA
Out Imp: <200Ω
Rec Load: >2.2kΩ
Pwr Type: P48
Alt Pwr: -

SC: 4mA
Con via: XLR-3 (M)
Pad: -6/-12/-18 dB switchable
Filt Freq: 40/80/160 Hz
Slope: 12/12/6 dB/Oct
SA: Shock mount, pop screen, windscreen, flight case
OA: Factory-matched stereo set including mounting bar



C4500BBC
\$499

Polar: Cardioid
Dim: -
Wght: 450g
Freq: 30Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 165dB
Out Imp: 200Ω
Red Load: 1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: -
OA: -



C214
\$399

Polar: Cardioid
Dim: 55 x 160 (mm)
Wght: 280g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 156dB
Self Noise: 13dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P12
Alt Pwr: -
SC: <2V
Con via: XLR-3 (M)

Pad: 20dB
Filt Freq: 160Hz
Slope: 6dB/Oct
SA: Shockmount, windscreen, flight case
OA: Factory-matched stereo set including mounting bar





“Sterling and Ocean Way Recording have partnered to develop a microphone with an impressive, larger-than-life sound in an affordable and repeatable way.”

— Allen Sides

ST6050

Sterling®/Ocean Way Signature Edition Microphone

Voiced by Allen Sides — legendary engineer, producer and multiple Grammy® recipient — the ST6050 was inspired by Ocean Way’s expansive collection of superb sounding microphones, spanning many decades and musical eras.

By combining classic capsule and FET design with modern manufacturing and consistency, the ST6050 yields stunning clarity with a rich, warm, open sound and a silky top end — ideal for modern artists, producers, and engineers



Available at the following preferred dealers.



Musician's Friend®

GC PRO

Perception 420
\$249

Polar: Cardioid
Dim: 53 x 165 (mm)
Wght: 525g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 155dB
Self Noise: 16dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: 20dB
Filt Freq: 300Hz
Slope: 12dB/Oct
SA: Spider suspension, metal case
OA: Pop screen, windscreen



Perception 220
\$179

Polar: Cardioid
Dim: 53 x 165 (mm)
Wght: 525g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 155dB
Self Noise: 16dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: 20dB
Filt Freq: 300Hz
Slope: 12dB/Oct
SA: Spider suspension, metal case
OA: Pop screen, windscreen



Audio-Technica

For 50 years Audio-Technica have aimed to produce audio excellence and innovations in transducer technology. Renowned for the design and manufacture of high-quality audio products, the company offers a complete range of wired and wireless microphones, headphones and accessories for broadcast, live-sound, recording and installed-sound functions.

HQ: www.audio-technica.com

AE3000
\$279

Polar: Cardioid
Dim: 48 x 116 (mm)
Wght: 170g
Freq: 20Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 148dB
Self Noise: 11dB
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: 10dB
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Isolation clamp for 5/8"-27 threaded stands (AT8471), 5/8"-27 to 3/8"-16 threaded adaptor, soft protective pouch
OA: -



AT4040
\$299

Polar: Cardioid
Dim: 53 x 170 (mm)
Wght: 360g
Freq: 20Hz - 20kHz
Out Sens: 25.1mV/Pa
Max SPL: 145dB
Self Noise: 12dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 4.2mA
Con via: XLR-3 (M)

Pad: 10dB
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Stand clamp for 5/8"-27 threaded stands (AT8405a), windscreen (AT8159), protective carrying case
OA: -



AT4047MP
\$849

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 53 x 188 (mm)
Wght: 524g
Freq: 20Hz - 18kHz
Out Sens: 7.1mV/Pa
Max SPL: 155dB
Self Noise: 14dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3.4mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Shockmount for 5/8"-27 threaded stands (AT8449/SV), microphone dust cover, protective carrying case
OA: -

SOS Review (December 2010)
www.soundonsound.com/sos/dec10/articles/at4047-mp.htm



AT5040
\$2999 MSRP

Polar: Cardioid
Dim: 57 x 165.3 (mm)
Wght: 582g
Freq: 20Hz - 20kHz
Out Sens: 56.2mV/Pa
Max SPL: 142dB
Self Noise: 5dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3.8mA
Con Via: XLR-3 (M)

Filt Freq: -
SA: AT8480 shockmount; protective carrying case
OA: -



AT4050ST \$1299

Polar: Cardioid, figure-of-8
Dim: 53 x 193 (mm)
Wght: 517g
Freq: 20Hz - 18kHz
Out Sens: Stereo 90°: 7.9mV/Pa; Stereo 127°: 8.9mV/Pa; Mid/Side: 15.8mV/Pa
Max SPL: Mid/Side: 149dB
Self Noise: Stereo 90°: 25dBA; Stereo 127°: 16dBA; Mid: 15dBA; Side: 17dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 6.4mA (both channels, total)
Con via: XLR-5 (M)
Pad: 10dB
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Shock mount for 5/8"-27 threaded stands (AT8449), microphone dust cover, protective carrying case, 5.0m long, 8-conductor, shielded, vinyl-jacketed stereo cable with 5-pin XLR-F-type connector at microphone end and two 3-pin XLR-M-type connectors at output end
OA: -

SOS Review (November 2010)
www.soundonsound.com/sos/nov10/articles/at4050.htm



AE5100 \$429 MSRP

Polar: Cardioid
Dim: 26 x 148.5 (mm)
Wght: 143g
Freq: 20Hz - 20kHz
Out Sens: 15.8 mV/Pa
Max SPL: 148dB, 158dB
Self Noise: 11dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: 11-52V DC, P48 compatible
Alt Pwr: -
SC: 3.2mA

Con Via: XLR-3 (M)
Filt Freq: 80Hz, 12dB/octave
SA: AT8471 isolation clamp; thread adapter; AT8136 windscreen; soft protective pouch
OA: -



AT4033/CL \$595 MSRP

Polar: Cardioid
Dim: 170 x 53.4 (mm)
Wght: 380g
Freq: 30Hz - 20kHz
Out Sens: 25.1mV/Pa
Max SPL: 145dB / 155dB with 10dB pad (nominal)
Self Noise: 17dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
SC: 3.2mA

Pad: -
Con via: XLR-3 (M)
Filt Freq: 80Hz
SA: AT8449 shockmount, microphone dust cover, protective carrying case
OA: -



Audix

Founded in 1984 in California, Audix are a well-respected manufacturer of microphones for stage, studio and specialised purposes. Their dynamic mics, in particular, are very popular with engineers.

HQ: www.audixusa.com

VX5 \$290

Polar: Supercardioid
Dim: 181mm (H)
Wght: 277g
Freq: 40Hz - 16.5kHz
Out Sens: 5mV/Pa
Max SPL: 140dB
Self Noise: 26dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 150Hz
Slope: -
SA: Clip, pouch
OA: -



SCX25-A \$785

Polar: Cardioid
Dim: -
Wght: 244g
Freq: 20Hz - 20kHz
Out Sens: 28mV/Pa
Max SPL: >135dB
Self Noise: 80dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48-52
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Foam-lined wooden case, tension-fit heavy-duty nylon microphone clip, metal adaptor to fit 3/8" microphone stands
OA: Various stands and mounting options, phantom power supply, shockmount system, pop diffuser, carrying pouch

SOS Review (July 2009)
www.soundonsound.com/sos/jul09/articles/audixcx212.htm



VX10 \$590

Polar: Cardioid
Dim: 180mm (H)
Wght: 310g
Freq: 40Hz - 20kHz
Out Sens: 24mV/Pa
Max SPL: 138dB
Self Noise: 19dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



VX10 LO
\$590

Polar: Cardioid
Dim: 180mm (H)
Wght: 310g
Freq: 40Hz - 20kHz
Out Sens: 4mV/Pa
Max SPL: 138dB
Self Noise: 19dBA
Out Imp: 250Ω
Rec Load:
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: -



CX212B
\$740

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: 365g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 133dB / 143dB pad
Self Noise: 75dBA
Out Imp: 120Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -10dB
Filt Freq: 120Hz
Slope: 12dB/Oct
SA: Isolation shockmount, aluminium carrying case, adjustable one-piece metal clip
OA: Foam windscreen, two-channel phantom power supply, pop diffuser, tripod microphone stand

SOS Review (July 2009)
www.soundonsound.com/sos/jul09/articles/audixcx212.htm



CX112B
\$330

Polar: Cardioid
Dim: 165mm (H)
Wght: 340g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 135dB/145dB with pad
Self Noise: 15dBA
Out Imp: 120Ω
Rec Load:
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: 120Hz
Slope: -
SA: Clip, wood box
OA: -



Avantone

Avantone are best known for their Mixcube single-driver loudspeakers, but they also make a range of high-quality solid-state and valve condenser microphones, as well as dynamic drum mics and ribbon mics.

HQ: www.avantonepro.com

CV-12
\$499

Polar: Cardioid
Dim: -
Wght: -
Freq: 35Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Custom retro shockmount, padded wooden microphone box, padded aluminium carry case, owner's manual
OA: -



CK6
\$179

Polar: Cardioid
Dim: -
Wght: -
Freq: 35Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Custom retro shockmount, padded wooden microphone box, padded aluminium carry case, owner's manual
OA: -



CK-40 (Stereo) \$599

Polar: Cardioid, omnidirectional, figure-of-8
Dim: 49 x 276 (mm)
Wght: 95kgs
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 147dB
Self Noise: 77dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

Con via: XLR-5 (M)
SC: -
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount, foam filter, 2 x 1 splitter box, cable, metal road case
OA: -



CK-7 \$279

Polar: Cardioid, omnidirectional, figure-of-8
Dim: 51 x 187 (mm)
Wght: 650g
Freq: 20Hz - 20kHz
Out Sens: 12.5mV/Pa
Max SPL: 139dB
Self Noise: 16dBA
Out Imp: 250Ω
Pwr Type: P48
Alt Pwr: -
Con via: XLR-3 (M)
SC: -

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden box in metal carrying case
OA: -



Behringer

Behringer were founded in 1989 and offer equipment for a range of applications at consumer prices. They produce a comprehensive product line including loudspeakers, amplifiers, mixers, powered mixers, computer-based recording and DJ products, microphones, headphones, wireless systems, musical instruments and professional lighting systems.

HQ: www.behringer.com

B-2 Pro \$149.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 56 x 210 (mm)
Wght: 550g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa (omni), 16mV/Pa (cardioid), 18mV/Pa (figure-of-8)
Max SPL: 139dB/149dB pad (omni), 138dB/148dB pad (cardioid), 137dB/147dB pad (figure-of-8)
Self Noise: -
Out Imp: <100Ω

Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 150Hz
Slope: 6dB/Oct
SA: Heavy-duty suspension mount, windscreen, aluminium travel case
OA: -
SOS Review (April 2004)
www.soundonsound.com/sos/apr04/articles/behringerb2.htm



STILL THE BEST!

Our PROSCREEN pop filters offer the
BEST PERFORMANCE
BEST WARRANTY
BEST DESIGN

MADE
IN
USA

Also
Protect your
Headphones
with our new
headphone hanger



PROSCREEN XL

STEDMAN

www.stedmancorp.com
888-629-5960

Model SHH

WHAT HAPPENS IN YOUR VOCALBOOTH™ STAYS IN YOUR VOCALBOOTH™



CUSTOM
HEIGHTS
UP TO
9'6"

Celebrating 16 Years!

Standard & Custom Sizes Up To 16' x 24'



VOCALBOOTH.COM™
HEAR THE DIFFERENCE

www.vocalbooth.com | 866-330-6045

C-1
\$49.99

Polar: Cardioid
Dim: 54 x 169 (mm)
Wght: 450g
Freq: 40Hz - 20kHz
Out Sens: -
Max SPL: 136dB
Self Noise: -
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P36-52
Alt Pwr: -
SC: 2.5mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Swivel stand mount, transport case
OA: -



B-1
\$99.99

Polar: Cardioid
Dim: 58 x 174 (mm)
Wght: 450g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 138dB/148dB pad
Self Noise: -
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: 6dB/Oct
SA: Heavy-duty suspension mount, windscreen, aluminium travel case
OA: -



C-3
\$69.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 54 x 180 (mm)
Wght: 450g
Freq: 40Hz - 18kHz
Out Sens: 10mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 350Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 7mA

Con via: XLR-3(M)
Pad: -10dB
Filt Freq: 220Hz
Slope: 6dB/Oct
SA: Swivel mount, transport case
OA: -



Beyerdynamic

Beyerdynamic have been an industry leader in the design and manufacturer of premium-grade microphones, headphones and wireless microphone systems since 1924. Their microphone range covers pretty much every type, including dynamic, capacitor and ribbon models.

USA: www.americanmusicsounds.com
HQ: www.beyerdynamic.com

MC840
\$1699

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 70 x 165 (mm)
Wght: 286g
Freq: 30Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 127dB
Self Noise: 27dBA
Out Imp: 180Ω
Rec Load: >1kΩ
Pwr Type: P11 - P52
Alt Pwr: -

SC: 4.6mA
Con via: XLR-3 (M)
Pad: -10 and -20 dB
Filt Freq: 80 or 160 Hz
Slope: 6dB/Oct
SA: Clamp, elastic suspension, transport case
OA: Pop shield, windscreen, multi-purpose dual-mount clamp

SOS Review (July 2007)
www.soundonsound.com/sos/jul07/articles/beyerdynamicmc840.htm



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics, Blue Microphones offer innovative design and top performance.

HQ: www.bluemic.com

Baby Bottle
\$399.99

Polar: Cardioid
Dim: 45 x 222 (mm)
Wght: 350g
Freq: 20Hz - 20kHz
Out Sens: 33.5mV/Pa
Max SPL: 133dB
Self Noise: 5.5dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount, custom pop filter
OA: Dual-cable, universal pop filter, XLR to USB converter



Blueberry \$999.99

Polar: Cardioid
Dim: 50 x 235 (mm)
Wght: 520g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 140dB
Self Noise: 9dBA
Out Imp: 150Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount
OA: Dual-cable, universal pop filter, XLR to USB converter



Bluebird \$299.99

Polar: Cardioid
Dim: 45 x 222 (mm)
Wght: 480g
Freq: 20Hz - 20kHz
Out Sens: 27mV/Pa
Max SPL: 138dB
Self Noise: 7.5dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount, custom pop filter
OA: Dual-cable, universal pop filter, XLR to USB converter



Bottle Rocket Stage One \$999.99

Polar: Omnidirectional, cardioid, figure-of-8, hemispherical
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 27mV/Pa
Max SPL: 133dB
Self Noise: 7.5dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: B8 capsule, custom spider shockmount
OA: Eight additional bayonet-mounted capsules



Dragonfly \$999.99

Polar: Cardioid
Dim: 60 x 165 (mm)
Wght: 980g
Freq: 20Hz - 20kHz
Out Sens: 21mV/Pa
Max SPL: 138dB
Self Noise: 8dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount, custom pop filter
OA: Universal pop filter, XLR to USB converter



Kiwi \$1999

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 60 x 220 (mm)
Wght: 880g
Freq: 20Hz - 20kHz
Out Sens: 19mV/Pa
Max SPL: 138dB
Self Noise: 8.5dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount, custom pop filter
OA: Quad cable, universal pop filter, XLR to USB converter



Reactor \$499.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 19mV/Pa
Max SPL: 135dB
Self Noise: 9.3dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Metal case, custom shockmount, custom pop filter
OA: Universal pop filter, custom pop filter



Brauner

Brauner Microphones are a Germany-based manufacturer of hand-crafted high-end microphones. The company were founded in 1995 by Sound Engineer Dirk Brauner.

HQ: www.braunerusa.com

Phanthera \$1934.10

Polar: Cardioid
Dim: 50 x 150 (mm)
Wght: 500g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, XLR-Vovox cable, aluminium case
OA: Pop filter (P120-VT)

SOS Review (August 2007)
www.soundonsound.com/sos/aug07/articles/braunerphanthera.htm



Phanthera V
\$3419.10

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 50 x 150 (mm)
Wght: 500g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 10mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, XLR-Vovox cable, aluminium case
OA: Pop filter (P120-VT)



Phantom Classic
\$1754.10

Polar: Cardioid
Dim: 50 x 150 (mm)
Wght: 500g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, XLR-Vovox cable, aluminium case
OA: Pop filter (P120-VT)



Phantom V
\$3059.10

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 50 x 150 (mm)
Wght: 500g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, XLR-Vovox cable, aluminium case
OA: Pop filter (P120-VT)



CAD Audio

With over 80 years of experience, CAD Audio are manufacturers of high-quality, cost-effective studio, live, and commercial microphone products and accessories. They offer four series of products: Recording, Live, Astatic Commercial and Personal Audio.

HQ: www.cadaudio.com

Equitek E300S
\$399.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: 2kg
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 145dB
Self Noise: 12dBA
Out Imp: 220Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: rechargeable

9V nickel hydride
SC: 8mA
Con via: XLR-3 (M)
Pad: -20dB
Filt Freq: 135Hz
Slope: 6dB/Oct
SA: Shockmount, composite carry case
OA: -



Equitek E100S
\$495.95

Polar: Supercardioid
Dim: -
Wght: 896g
Freq: 40Hz - 18kHz
Out Sens: 28mV/Pa
Max SPL: 150dB
Self Noise: 3.7dBA
Out Imp: 140Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 2mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Stealth shockmount, composite carry case
OA: -

SOS Review (January 2011)
www.soundonsound.com/sos/jan11/articles/cade100s.htm



Charter Oak

Founded in 2002 by producer and engineer Michael Deming, Connecticut-based Charter Oak create high-quality, hand-assembled recording products, including equalisers and mic preamps, in addition to their small- and large-diaphragm condenser mics.

USA: www.soundpure.com
 HQ: www.charteroakacoustics.com

E700 \$899

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 25Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 125dB
Self Noise: 17dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB/-20dB
Filt Freq: -
Slope: -
SA: Flight case, shockmount
OA: -

SOS Review (May 2008)
www.soundonsound.com/sos/may08/articles/charteroake700.htm



Editors Keys

Editors Keys manufacture shortcut editing keyboards and USB microphones. The new SL Series of microphones offer broadcast-quality sound and plug directly into your USB port, and have received some excellent reviews.

HQ: www.editorskeys.com

PROFESSIONAL STUDIO MICROPHONE FOR
 HOME RECORDING



#J1

SL300 USB
\$149.99

Polar: Omnidirectional
Dim: 50 x 185 (mm)
Wght: 490g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 140dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: USB cable, carrying case, shockmount, lifetime guarantee
OA: Desk stand, portable vocal booth



SL150 USB
\$119.99

Polar: Omnidirectional
Dim: 50 x 185 (mm)
Wght: 434g
Freq: 20Hz - 20kHz
Out Sens: 1mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: USB cable, carrying case, shockmount, lifetime guarantee
OA: Desk stand, portable vocal booth



Elation

Elation are a Russian manufacturer specialising in condenser microphones. Their aim is to design mics that combine a wide dynamic range and high SPL-handling capability with a warm and defined sound.

HQ: www.elationmiclab.com

KM901
\$1170

Polar: Cardioid, supercardioid, figure-of-8
Dim: 51 x 210 (mm)
Wght: 610g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 140dB
Self Noise: 13dBA
Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: 2.5mA
Con via: XLR-3 (M)
Pad: 0dB, -10dB, +6dB
Filt Freq: flat, 150Hz, 300Hz
Slope: 0, 3, 6 dB/Oct
SA: Ash or oak wooden case
OA: Shockmount, pop shield, cable, windscreen



Electro-Voice

Electro-Voice (commonly referred to as EV) are a manufacturer of audio equipment, including microphones, amplifiers and loudspeakers. Electro-Voice market their products for use in small or large concert venues, broadcasting, houses of worship, and retail situations.

HQ: www.electrovoice.com

RE200
\$349

Polar: Cardioid
Dim: 28 x 137 (mm)
Wght: 185g
Freq: 50Hz - 18kHz
Out Sens: 10mV/Pa
Max SPL: 130dB
Self Noise: 21dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P12, P52
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Stand adaptor, desk stand with rubber mount, isolating shockmount, foam windscreen



RE410
\$199

Polar: Cardioid
Dim: 51 x 185 (mm)
Wght: 260g
Freq: 50Hz - 20kHz
Out Sens: 4mV/Pa
Max SPL: -
Self Noise: 26dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P24, P48
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



RE510
\$249

Polar: Supercardioid
Dim: 51 x 182 (mm)
Wght: 260g
Freq: 40Hz - 20kHz
Out Sens: 3.2mV/Pa
Max SPL: 146dB
Self Noise: 22dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P24, P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Stand adaptor, various coloured windscreens



Flea

Flea Microphones are a Slovakian custom manufacturer of large-diaphragm microphones, mechanical spare parts and accessories for old vintage microphones.

USA: www.vintageking.com
 HQ: www.flea-microphones.com

Flea 12 \$4235.80

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 48 x 260 (mm)
Wght: 600g
Freq: 30Hz - 18kHz
Out Sens: 10mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 500Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: -
Alt Pwr: -
SC: -

Con via: C12
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, PSU with built-in pattern selector, microphone cap, cable with swivel connector
OA: Flight case, shockmount, vintage hardware (PSU/pattern selector)



Flea 47 \$4216

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 48 x 260 (mm)
Wght: 600g
Freq: 30Hz - 18kHz
Out Sens: 10mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 500Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: C12

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, PSU, microphone cap, shockmount, cable
OA: Swivel mount, flight case, vintage-style power supply

SOS Review (September 2011)
www.soundonsound.com/sos/sep11/articles/flea-47.htm



Flea 48 \$4216

Polar: Cardioid
Dim: 63 x 225 (mm)
Wght: 660g
Freq: 35Hz - 18kHz
Out Sens: 20mV/Pa (cardioid), 14mV/Pa (figure-of-8)
Max SPL: 138dB
Self Noise: 12dBA
Out Imp: 500Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: Flea UZ56
Alt Pwr: -
SC: -
Con via: Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, PSU, microphone cap, shockmount, cable
OA: Swivel mount, flight case, vintage-style PSU



Flea 49 & 249 \$4466.73

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 80 x 160 (mm)
Wght: 780g
Freq: 40Hz - 18kHz
Out Sens: 9mV/Pa (omnidirectional), 8mV/Pa (cardioid), 10mV/Pa (figure-of-8)
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 500Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: Flea UZ56
Alt Pwr: -
SC: -
Con via: Tuchel (Flea 49), binder (Flea 249)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, power supply, microphone cap, yokemount, cable
OA: -



Flea 50 & 250 \$4796.61

Polar: Omnidirectional
Dim: 80 x 160 (mm)
Wght: 780g
Freq: 40Hz - 18kHz
Out Sens: 15mV/Pa
Max SPL: 136dB
Self Noise: 14dBA
Out Imp: 500Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: Flea UZ56
Alt Pwr: -
SC: -
Con via: Tuchel (Flea

50), binder (Flea 250)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, PSU, microphone cap, yokemount, cable
OA: Swivel mount, flight case



47 Next
\$3166.95

Polar: Cardioid
Dim: -
Wght: -
Freq: 35Hz - 18kHz
Out Sens: 25mV/Pa
Max SPL: 138dB
Self Noise: 12dBA
Out Imp: 50Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: 7-pin Tuchel

Pad: -
Filt Freq: -
Slope: -
SA: Microphone wooden box, PSU, cable, shockmount, microphone cap
OA: -



49 Next
\$3523.24

Polar: Cardioid, omni, figure-of-8
Dim: -
Wght: -
Freq: 40Hz - 18kHz
Out Sens: 9mV/Pa, 8mV/Pa, 10mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 50Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: 7-pin Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Microphone wooden box, PSU, cable, shockmount, microphone cap
OA: -



74 Next
\$3166.96

Polar: Cardioid, omni, figure-of-8
Dim: -
Wght: -
Freq: 35Hz - 18kHz
Out Sens: 20mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 50Ω/200Ω
Rec Load: 500Ω/2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: 7-pin Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Microphone wooden box, PSU, cable, shockmount, microphone cap
OA: -



Golden Age Project

Golden Age Project are a spin-off of the high-end pro audio distribution activities of Golden Age Music, a Swedish company founded by Bo Medin in 1982. Golden Age Project offer affordable vintage-style products.

USA: www.raddist.com
HQ: www.goldenagemusic.se

FC1 Mk2
\$99.99

Polar: Cardioid
Dim: 50 x 190 (mm)
Wght: 470g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount
OA: -



FC2 ST
\$219.99

Polar: Cardioid
Dim: 50 x 190 (mm)
Wght: 470g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: Shockmount
OA: -



FC3
\$149.99

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 50 x 190 (mm)
Wght: 470g
Freq: 20Hz - 20kHz
Out Sens: 14.5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: Shockmount
OA: -



Josephson

Josephson Engineering are a microphone manufacturer catering to the professional studio, home studio, broadcast and live sound markets. The company were founded in 1988.

HQ: www.josephson.com

C700A \$4590

Polar: Omnidirectional, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 9mV/Pa
Max SPL: 135dB
Self Noise: <15dBA
Out Imp: -
Rec Load: -
Pwr Type: 2 x P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Pelican brand hard case
OA: -



C700S \$6750

Polar: Omnidirectional, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 9mV/Pa
Max SPL: 135dB
Self Noise: <15dBA
Out Imp: -
Rec Load: -
Pwr Type: 3 x P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Pelican brand hard case
OA: -



C715 \$3795

Polar: Omnidirectional, cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 1.8mV/Pa
Max SPL: 140dB
Self Noise: <19dBA
Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Pelican brand hard case
OA: -



C716 \$3995

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 26mV/Pa
Max SPL: 136dB
Self Noise: <15dBA
Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Pelican brand hard case
OA: -

SOS Review (October 2011)
www.soundonsound.com/sos/oct11/articles/josephson-c716.htm



JTS

JTS Professional, founded in 1982, are a Taiwan-based company who manufacturer professional microphones, wireless systems, conference systems, tour guide systems, headphones and earphones. JTS have official distributors in over 70 countries, and are also an OEM supplier for tailor-made products.

HQ: www.jtsusa.us

JS-1 \$209.95

Polar: Cardioid
Dim: 56 x 184 (mm)
Wght: 480g
Freq: 20Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 132dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P36-52
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Spider, windscreen
OA: -



JS-1E
\$119.95

Polar: Cardioid
Dim: 56 x 184 (mm)
Wght: 480g
Freq: 20Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: -
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P36-52
Alt Pwr: -
SC: <1mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, windscreen
OA: -



JS-1T
\$239.95

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 56 x 184 (mm)
Wght: 480g
Freq: 20Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 132dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P36-52
Alt Pwr: -
SC: <1mA

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Spider, windscreen
OA: -



JZ Microphones

JZ Microphones were established in 2007 in Latvia by Juris Zarins. Producing capsules made with the 'Golden Drop' sputtering technique, which provides a more detailed and transparent capsule response, JZ Microphones have been used by many award-winning musicians, sound engineers and famous studios around the world.

HQ: www.jzmic.com

Black Hole 1
\$1999

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 51 x 203 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 134.5dB
Self Noise: 7.5dBA
Out Imp: 50Ω
Rec Load: >250Ω
Pwr Type: P48
Alt Pwr: -
SC: 1.5mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: Black Hole shockmount, pop filter kit, JZ pop filter

SOS Review (January 2012)
www.soundonsound.com/sos/jan12/articles/jz-vintage-11.htm



Black Hole 1s
\$3799

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 51 x 203 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 134.5dB
Self Noise: 7.5dBA
Out Imp: 50Ω
Rec Load: >250Ω
Pwr Type: P48
Alt Pwr: -
SC: 1.5mA

Con via: XLR-3 (M)
Pad: -10dB/-20dB
Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: Black Hole shockmount, pop filter kit, JZ pop filter



Black Hole 2
\$999

Polar: Cardioid
Dim: 51 x 203 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 21mV/Pa
Max SPL: 134.5dB
Self Noise: 6.5dBA
Out Imp: 50Ω
Rec Load: >250Ω
Pwr Type: P48
Alt Pwr: -
SC: 1.5mA
Con via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: Black Hole shockmount, pop filter kit, JZ pop filter



Vintage 11
\$699

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 134dB
Self Noise: 6.5dBA
Out Imp: 50Ω
Rec Load: >500Ω
Pwr Type: P48
Alt Pwr: -
SC: >2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: JZ pop filter



ATLANTIS FC-387

Introducing the most versatile vocal microphone in your arsenal!

"That Lauten Atlantis microphone is kick ass...the most versatile piece of gear entering my studio in years.

The 3-way character switch is awesome. Now I can answer the question: If you only could buy one mic, which one? - **the Lauten Atlantis FC-387 hands down!!**"



Michael Wagener

Mötley Crüe, Poison, Metallica, Alice Cooper, White Lion, Megadeth, Skid Row, Janet Jackson, Queen, Ozzy Osbourne, Dokken, and a lot more (visit www.michaelwagener.com)

One BIG microphone, three GIGANTIC personalities

Your ability to achieve fantastic recordings just got a lot easier with the new Atlantis FC-387 studio vocal microphone. Its voicing switch gives you three very different timbres to choose from allowing you to configure the microphone to sound great on anything. Whether you want the warm 60s, thick 70s, sizzling 80s, or a forward and open modern sound, the Atlantis has it all. In addition to the amazingly versatile voicing switch, you can also choose between cardioid, omni-directional, and figure-8 polar patterns as well as three different attenuations. The Atlantis is a true modern-day microphone and has raised the bar for versatility with literally 27 possible configurations. The Atlantis' sound was designed by Fab Dupont, one of the most sought-after producers, engineers, and educators of today... so you know it sounds Fabulous.

visit www.lautenaudio.com for more information on Atlantis



Vintage 12
\$1699

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 134dB
Self Noise: 6dBA
Out Imp: 50Ω
Rec Load: >500Ω
Pwr Type: P48
Alt Pwr: -
SC: >2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: JZ pop filter



Vintage 67
\$1699

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 134dB
Self Noise: 6dBA
Out Imp: 50Ω
Rec Load: >500Ω
Pwr Type: P48
Alt Pwr: -
SC: >2mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: JZ pop filter



Vintage 47
\$1699

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 134dB
Self Noise: 6dBA
Out Imp: 50Ω
Rec Load: >500Ω
Pwr Type: P48
Alt Pwr: -
SC: >2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Holder, shockmount, wooden case
OA: JZ pop filter



Karma Microphones

Karma Audio are located in Cupertino, CA, and design, manufacture, and distribute a full range of professional recording microphones. Karma Audio's product philosophy is to provide distinctive, affordable and high-quality microphones that enable a new generation of recording engineers to produce music. The company were founded in 2001.

HQ: www.karmamics.com

Trinity
\$199

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 77 x 220 (mm)
Wght: 640g
Freq: 20Hz - 20kHz
Out Sens: 17.78mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 200Ω
Rec Load: >500Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: Shockmount, extra shockmount bands, hard case
OA: Inline XLR pad & phase reverse, dual head pop filter, reflection filter



Unity
\$169

Polar: Cardioid
Dim: 77 x 220 (mm)
Wght: 625g
Freq: 20Hz - 20kHz
Out Sens: 15.84mV/Pa
Max SPL: 125dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: Shockmount, extra shockmount bands, hard case
OA: Inline XLR pad & phase reverse, dual head pop filter, reflection filter



Lauten

Lauten Audio, based in Northern California, is a boutique designer and manufacturer of microphones and related equipment. Founded in 2004 by Brian Loudenslager, Lauten's USP is that, unlike many manufacturers, they do not seek to create designs that are neutral and forensically accurate, but rather microphones that are musically involving and creative, with an 'original' sound character.

HQ: www.lautenaudio.com

Atlantis FC-387 \$1599 MSRP

Polar: Cardioid, omnidirectional, figure-of-8
Dim: 240 x 71 (mm)
Wght: 929g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 130dB
Self Noise: 12dBA
Out Imp: 200Ω
Rec Load: 300Ω
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, cover, wooden box
OA: -



Clarion FC-357 \$999

Polar: Cardioid, omni, figure-of-8
Dim: 199 x 67 (mm)
Wght: 907g
Freq: 25Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 130dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 300Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden box, hard case
OA: -



LD Systems

LD Systems is a brand name of the Adam Hall Group, associated with a wide range of value-for-money audio products over the last decade. They offer a range of Chinese-sourced microphones, with German assembly and quality control, incorporating both moving-coil and capacitor models for stage and studio.

HQ: www.ld-systems.com

DVOX €279 (US price not available)

Polar: cardioid
Dim: 58 x 163 (mm)
Wght: 630g
Freq: 20Hz - 20kHz
Out Sens: 29.3mV/Pa
Max SPL: 129dB
Self Noise: 87.5dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: case, foam windscreen, shock mount
OA: -



D1013USB €95 (US price not available)

Polar: Cardioid
Dim: 55 x 180 (mm)
Wght: 385g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: 140dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: USB
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, zip bag, USB-cable
OA: -



D1105

€35 (US price not available)

Polar: Hypercardioid
Dim: 50 x 180 (mm)
Wght: 345g
Freq: 50Hz - 16kHz
Out Sens: 2.2mV/Pa
Max SPL: 144dB
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Leather gig bag, microphone clip
OA: -



D1012C

€115 (US price not available)

Polar: Cardioid
Dim: 32 x 212 (mm)
Wght: 490g
Freq: 35Hz - 20kHz
Out Sens: -
Max SPL: 142dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: 9V battery
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Bag, clamp, thread adapter
OA: -



Lewitt

Founded in 2010, Vienna-based Lewitt produce high-performance microphones designed to deliver clarity and fidelity, and to work in a variety of demanding studio and live applications. Lewitt build recording, wireless, performance and drum microphones.

USA: www.trunorthmusicandsound.com
HQ: www.lewitt-audio.com

LCT 640

\$799

Polar: Omnidirectional, supercardioid, hypercardioid, figure-of-8
Dim: 52 x 158 (mm)
Wght: 430g
Freq: 20Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 145dB
Self Noise: 10dBA
Out Imp: >150Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 5.5mA
Con via: XLR-3 (M)
Pad: -6, -12, -18 dB
Filt Freq: 40, 150, 300 Hz
Slope: 12, 6, 6 dB/Oct
SA: Shockmount, leather bag, windscreen, flight case
OA: Stereo mount, pop shield



LCT 940

\$1599

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 60 x 192 (mm)
Wght: 662g
Freq: 20Hz - 20kHz
Out Sens: 23mV/Pa
Max SPL: 143dB
Self Noise: 8dBA
Out Imp: >200Ω
Rec Load: >1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 120mA
Con via: XLR-3 (M)
Pad: -6, -12, -18 dB
Filt Freq: 40, 150, 300 Hz
Slope: 12, 6, 6 dB/Oct
SA: PSU, shockmount, 11-pin audio cable, windscreen, flight case
OA: Stereo mount, pop shield



MTP 940

\$599

Polar: Broad-cardioid, cardioid, super-cardioid
Dim: 183mm (H)
Wght: 332g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 144 dB, 150 dB, 156 dB
Self Noise: 9dBA
Out Imp: 150Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: 100Hz, 250 Hz
Slope: -
SA: Shockmount, leather bag
OA: -



MXL

The microphone division of Marshall Electronics (not the similarly named guitar-amp makers), MXL started off producing low-cost studio capacitor mics, but have since branched out into ribbon mics and models designed for the stage.

HQ: www.mxlmics.com

Genesis FET

\$399.95

Polar: -
Dim: 47 x 225 (mm)
Wght: 431g
Freq Response: 20Hz - 20kHz
Out Sens: 31mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filter Freq: -
Slope: -
SA: Shockmount, pop filter, cleaning cloth
OA: PF-002 or PF-003 pop filter, windscreen



603 Pair \$299

Polar: Cardioid
Dim: 22 x 133 (mm)
Wght: 137g
Freq: 30Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 134dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Aluminium flight case, high-isolation shockmount
OA: Omnidirectional capsule



770 \$99.95

Polar: Cardioid
Dim: 59 x 158 (mm)
Wght: 455g
Freq: 30Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 137dB
Self Noise: 20dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Rugged carrying case, high-isolation shockmount
OA: Pop filter, windscreen



990 \$49.99

Polar: Cardioid
Dim: 60 x 130 (mm)
Wght: 550g
Freq: 30Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Rugged carrying case, shockmount, hard mount, microphone stand adaptor
OA: Pop filter, windscreen

SOS Review (August 2005)
www.soundonsound.com/sos/aug05/articles/mxl.htm



2003a \$179.95

Polar: Cardioid
Dim: 50 x 197 (mm)
Wght: 453g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 152dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 150Hz
Slope: 6dB/Oct
SA: High-isolation shockmount
OA: Pop filter, hard mount, windscreen



2010 \$179.95

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 50 x 190 (mm)
Wght: 525g
Freq: 30Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)



Pad: -
Filt Freq: -
Slope: -
SA: High-isolation shockmount, windscreen
OA: Pop filter, hard mount microphone stand adaptor

Cube \$99.95

Polar: Cardioid
Dim: -
Wght: 385g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 132dB
Self Noise: 14dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Hard mount, microphone stand adaptor
OA: Low-profile shockmount



CR89 \$349.95

Polar: -
Dim: 64 x 185 (mm)
Wght: 839.15g
Freq: 20Hz - 20kHz
Out Sens: 31mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Filt Freq: -
SA: Flight case, shockmount, cleaning cloth
OA: PF-002 or PF-003 pop filter, windscreen



V67g
\$279

Polar: Cardioid
Dim: 47 x 184 (mm)
Wght: 590g
Freq: 30Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 130dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Hard mount, microphone stand adaptor
OA: Shockmount, windscreen, pop filter



V67i
\$189.95

Polar: Cardioid
Dim: 47 x 184 (mm)
Wght: 590g
Freq: 30Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 140dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -6dB
Filt Freq: 150Hz
Slope: 6dB/Oct
SA: Hard mount, microphone stand adaptor, wooden storage box
OA: Shockmount, windscreen, pop filter



V87
\$299.95

Polar: Cardioid
Dim: 47 x 190 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 136dB
Self Noise: 8.5dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Metal mesh pop filter, low-profile shockmount, hard mount, microphone stand adaptor
OA: Pop filter, high isolation shockmount, windscreen



CR30
\$299.95

Polar: -
Dim: 47 x 145 (mm)
Wght: 498.95g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 158dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Aluminum flight case, shockmount, microfiber cleaning cloth
OA: PF-002 or PF-003 pop filter, windscreen



Tempo XLR
\$79.95

Polar: -
Dim: 51 x 175 (mm)
Wght: 280g
Freq: 30Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 134dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)

Filt Freq: -
SA: Mic stand adapter, cleaning cloth
OA: PF-001, PF-002 or PF-003 pop filter



Tempo SK/KR USB
\$79.95

Polar: -
Dim: 47 x 190 (mm)
Wght: 280g
Freq: 40Hz - 18kHz
Out Sens: 4.4mV/Pa
Max SPL: -
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -

SC: -
Con via: USB
Pad: -
Filt Freq: -
Slope: -
SA: Tripod stand, mic stand adapter, USB cable
OA: -



Microtech Gefell

Microtech Gefell GmbH are a German manufacturer of studio and measurement microphones that are exclusively hand made. Besides microphones, Microtech Gefell GmbH offer calibration and service for the whole product range. They continue the tradition of Georg Neumann who founded the company in 1928.

HQ: www.microtechgefell.de

M 900 \$1370

Polar: Cardioid
Dim: 47 x 218 (mm)
Wght: 229g
Freq: 40Hz - 20kHz
Out Sens: 17mV/Pa
Max SPL: 133dB
Self Noise: 13dBA
Out Imp: 150Ω
Rec Load: ≥1kΩ

Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: Windscreen (W90), elastic suspension (EA90)



M 930 \$1220

Polar: Cardioid
Dim: 45 x 118 (mm)
Wght: 210g
Freq: 40Hz - 18kHz
Out Sens: 21mV/Pa
Max SPL: 142dB
Self Noise: 7dBA
Out Imp: 100Ω
Rec Load: ≥1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.6mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, microphone holder
OA: Windscreen (W76), pop screen (P110), elastic suspension (EA93)

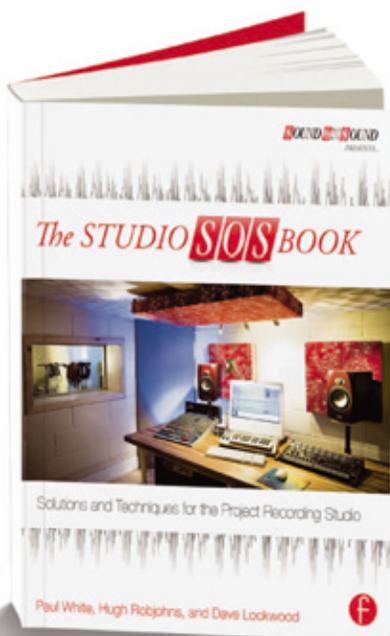
SOS Review (January 2004)
www.soundonsound.com/sos/jan04/articles/microtechgefell.htm



»

Focal Press and You.

BOUND TO CREATE



THE STUDIO SOS BOOK

PAUL WHITE, HUGH ROBJOHNS &
DAVE LOCKWOOD

The SOS team imparts easy-to-understand, organized troubleshooting expertise in this guide to professional project/home studio design.

Features:

- Case studies that look at small studios' specific problems
- Real solutions that you can both afford and implement

Pb • 978-0-415-82386-9 • \$34.95 / £21.99

www.focalpress.com/9780415823869



UM 930
\$4650

Polar: Omnidirectional, subcardioid, cardioid, hypercardioid, figure-of-8
Dim: 65 x 158 (mm)
Wght: 930g
Freq: 40Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 142dB
Self Noise: 7dBA
Out Imp: 100Ω
Rec Load: ≥1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 4.5mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: Windscreen (W93), elastic suspension (EA92), microphone holder (MH80)

SOS Review (June 2008)
www.soundonsound.com/sos/jun08/articles/microtechgefellum930.htm



UMT 70S
\$1730

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 42 x 217 (mm)
Wght: 290g
Freq: 40Hz - 20kHz
Out Sens: 7mV/Pa (omnidirectional), 13mV/Pa (cardioid), 8mV/Pa (figure-of-8)
Max SPL: 149dB (omnidirectional), 144dB (cardioid), 149dB (figure-of-8)
Self Noise: 14dBA
Out Imp: 150Ω

Rec Load: ≥1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 90Hz
Slope: -
SA: Wooden case
OA: Windscreen (W76), elastic suspension (EA21), microphone holder (MH75)
SOS Review (May 1995)
www.soundonsound.com/sos/1995_articles/may95/microtechgefell.html



MicW

MicW are a professional recording microphone brand, known for producing clean-sounding microphones. With great options for instrument and voice recording, MicW strive to develop products that faithfully reproduce and transmit sound cleanly.

HQ: www.mic-w.com

T551
\$1176

Polar: Cardioid
Dim: 42 x 163 (mm)
Wght: 340g
Freq: 20Hz - 20kHz
Out Sens: 40mV/Pa
Max SPL: 130dB
Self Noise: <22dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount (PP591)
OA: Shockmount (P5590)



Mikte

Mikte produce precision microphones, which are handmade in Nashville, USA. They are inspired by iconic mics of the past, and develop capsules and unique circuits to capture sound. Using the very latest in audio technology, Miktek's designs are approved by some of the world's most acclaimed sound engineers.

HQ: www.mikteaudio.com

C7
\$899

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 57 x 203 (mm)
Wght: 680g
Freq: 20Hz - 20kHz
Out Sens: -29, -34, -38 dBV/Pa
Max SPL: 118, 123, 127 dB
Self Noise: 13, 18, 22 dB
Out Imp: -
Rec Load: -

Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Wood presentation case, serialised frequency response graph, swivel-mount, shockmount, aluminium carry case
OA: -



Mojave Audio

Founded by David Royer (known for his ribbon mic designs for Royer Labs) in 1985, Mojave Audio were a one-man, custom pro-audio gear shop. Since the mid-1990s, Mojave mics have been used by high-end engineers on a number of well-known recordings. The company were relaunched in 2005, with David's non-ribbon mic designs.

HQ: www.mojaveaudio.com





Sound Engineering

Make a Professional Choice.



sE4400a



T2



sE5600a II



Gemini II



sE RNR1



sE RN17

Find out what the professionals say about sE microphones - seelectronics.com/testimonials

512 847 5696
fingerprintaudio.com
sales@fingerprintaudio.com



MA-301fet
\$895

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 5 x 20 (mm)
Wght: 181g
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: 138dB
Self Noise: 14dB nominal
Out Imp: 500Ω
Rec Load: 2.5kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Flight case, shockmount
OA: -



MA-201fet
\$695

Polar: Cardioid
Dim: 5 x 20 (mm)
Wght: 181g
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: 125dB
Self Noise: 14dBA
Out Imp: 500Ω
Rec Load: 2.5kΩ
Pwr Type: P48
Alt Pwr: -
SC: 0.68mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone box, clip and pop filter
OA: -



Neumann

Georg Neumann GmbH, based in Berlin, Germany, are renowned as one of the world's leading manufacturers of microphones. Some of their decades-old designs, like the U87, are still considered among the best available today.

HQ: www.neumannusa.com

TLM 103
\$1095.95

Polar: Cardioid
Dim: 60 x 132 (mm)
Wght: 450g
Freq: 20Hz - 20kHz
Out Sens: 23mV/Pa
Max SPL: 138dB
Self Noise: 7dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: N248 PSU
SC: 3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand mount, wooden box
OA: PSU, elastic suspension, auditorium mount, popscreen

SOS Review (June 1998)
www.soundonsound.com/sos/jun98/articles/neumann.html



TLM 103D
\$1599.95

Polar: Cardioid
Dim: 60 x 132 (mm)
Wght: 450g
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: -
Self Noise: 7dBA
Out Imp: -
Rec Load: -
Pwr Type: Digital phantom
Alt Pwr: DM-I series, DiGiCo AES 42-input card
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Stand mount, wooden box
OA: Elastic suspension, auditorium hanger, windscreen, pop shield, popscreen



U87ai
\$3199.95

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 56 x 200 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: 20, 28, 22 mV/Pa
Max SPL: 117dB (cardioid), 127dB with 10db pre-att
Self Noise: 15, 12, 14 dBA
Out Imp: 200Ω
Rec Load: 1kΩ

Pwr Type: P48
Alt Pwr: BS48 battery or N248 mains
SC: 0.8mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Wooden box
OA: Battery power supply, mains PSU, elastic suspension, swivel mount, popscreen, windscreen



Nevaton

Formed in Russia in 1991, Nevaton have their roots in the Leningrad optical and mechanical association and the scientific and industrial association. Founded as a microphone manufacturer and a research laboratory, Nevaton's base contains an acoustic lab, including a large anechoic chamber, as well as a factory in which each microphone is hand assembled.

USA: www.redsquareaudio.com
HQ: www.nevatonmics.com

MC48 (Stereo)
\$1499

Polar: Subcardioid, cardioid, supercardioid
Dim: 50 x 249 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 135dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA

Con via: XLR-5 (M)
Pad: -
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Shockmount clip, XLR cable, hardwood box
OA: -



MC51 \$1199

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 50 x 219 (mm)
Wght: 440g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 17dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount clip, hardwood box
OA: -

SOS Review (May 1995)
www.soundonsound.com/sos/1995_articles/may95/nevationmc51.html



MC404 (Stereo) \$1299

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 51 x 225 (mm)
Wght: 320g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 134dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: 1kΩ

Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-5 (M)
Pad: -
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Shockmount clip, XLR cable, hardwood box
OA: -



MC416 \$1355

Polar: Omnidirectional, subcardioid, cardioid, figure-of-8
Dim: 50 x 249 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 140dB
Self Noise: 15dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 10mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount clip, hardwood box
OA: -



MC440 \$1149

Polar: Cardioid
Dim: 50 x 175 (mm)
Wght: 310g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 135dB
Self Noise: 14dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount clip, hardwood box
OA: -



MC420 \$999

Polar: Cardioid
Dim: 50 x 175 (mm)
Wght: 310g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 135dB
Self Noise: 14dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount clip, hardwood box
OA: -



Oktava

Oktava are the oldest major Russian manufacturer of professional audio equipment, famous for their ribbon models as well as small- and large-diaphragm condenser microphones.

HQ: www.oktavausa.com

MK-101 \$293

Polar: Cardioid
Dim: 55 x 165 (mm)
Wght: 260g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 122dB
Self Noise: <18dBA
Out Imp: 150Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: -10dB pad, microphone holder
OA: Swivel joint, low-cut filter, shockmount, pop filter



MK-102
\$389

Polar: Cardioid
Dim: 39 x 125 (mm)
Wght: 230g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 120dB
Self Noise: <18dBA
Out Imp: 150Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: -10dB pad, microphone holder
OA: Swivel joint, low-cut filter, shockmount, pop filter



MK-104
\$429

Polar: Cardioid
Dim: 55 x 170 (mm)
Wght: 203g
Freq: 20Hz - 20kHz
Out Sens: >10mV/Pa
Max SPL: 140dB
Self Noise: 18dBA
Out Imp: 150Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: -10dB pad, microphone holder
OA: Swivel joint, low-cut filter, shockmount, pop filter



MK-105
\$429

Polar: Cardioid
Dim: 55 x 160 (mm)
Wght: 380g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 120dB
Self Noise: <18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone holder, wooden box
OA: Shockmount, pop filter



MK-519
\$429

Polar: Cardioid
Dim: 52 x 170 (mm)
Wght: 400g
Freq: 20Hz - 20kHz
Out Sens: >21mV/Pa
Max SPL: >124dB
Self Noise: 18dBA
Out Imp: 60Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone holder, wooden box
OA: Shockmount, pop filter



MK-220
\$272

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 52 x 205 (mm)
Wght: 620g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 300Hz
Slope: -
SA: Microphone holder
OA: Shockmount, pop filter



Pearl

Pearl are a Swedish manufacturer of high-end microphones. Their large-diaphragm condensers are based around unusual rectangular capsules, and they also make a stereo mic, the ELM-A. All Pearl microphones are hand-made in Sweden.

USA: www.independentaudio.com
HQ: www.pearl.se

CC22
\$1532

Polar: Cardioid
Dim: 32 x 150 (mm)
Wght: 270g
Freq: 20Hz - 25kHz
Out Sens: 18mV/Pa
Max SPL: 126dB
Self Noise: 12dBA
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2.3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount
OA: Windscreen

SOS Review (September 2004)
www.soundonsound.com/sos/sep04/articles/pearlcc22.htm



ELM-C \$2,055

Polar: Cardioid
Dim: 32 x 192 (mm)
Wght: 305g
Freq: 20Hz - 25kHz
Out Sens: 22mV/Pa
Max SPL: 126dB
Self Noise: 10dBA
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2.7mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount
OA: Wind shield, stereo bar

SOS Review (July 2006)
www.soundonsound.com/sos/jul06/articles/pearlelmc.htm



DS60 (Stereo) \$6,560

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 42 x 195 (mm)
Wght: 470g
Freq: 20Hz - 25kHz
Out Sens: 16mV/Pa
Max SPL: 126dB
Self Noise: 14dBA
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 5.5mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Flight case, elastic suspension, splitter connector, 8-core cable (10m)
OA: -



ELM-A \$3069

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 32 x 192 (mm)
Wght: 305g
Freq: 20Hz - 25kHz
Out Sens: 22mV/Pa
Max SPL: 126dB
Self Noise: 11dBA
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.5mA

Con via: XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount
OA: Wind shield

SOS Review (June 2011)
www.soundonsound.com/sos/jun11/articles/pear-elma.htm



Peluso

Peluso produce top-quality studio microphones inspired by classic vintage designs. Hand assembled from quality modern and vintage components, Peluso mics are extensively tested by computer frequency response and human listening tests, ensuring the lowest noise standards.

HQ: www.pelusomicrophonelab.com

P-Stereo \$1443.94

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 46 x 262 (mm)
Wght: 750g
Freq: 17Hz - 25kHz
Out Sens: 12mV/Pa
Max SPL: 148dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: P48
SC: 6mA

Con via: XLR-5 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, wooden box, PSU and cable, XLR-5 (M) cable, flight case
OA: -



Prodipe

French company Prodipe are known for making monitors with ribbon tweeters, as well as manufacturing a wide range of low-cost microphones for stage and studio use.

HQ: www.prodipe.com

ST1 \$109

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 130dB
Self Noise: <20dB
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: -
Slope: -
SA: Flight case, shockmount
OA: -



STC-3D
\$229

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 54 x 201 (mm)
Wght: 590g
Freq: 20Hz - 20kHz
Out Sens: -31, -34, -35 dB
Max SPL: 130dB
Self Noise: 14, 15, 16 dB
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: -
Pad: -10dB
Filt Freq: -
Slope: -
SA: Flight case, shockmount
OA: -

SOS Review (October 2007)
www.soundonsound.com/sos/oct07/articles/prodipestc3d.htm



ST-USB
\$99

Polar: Uni-directional
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 17mV/Pa
Max SPL: 135dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Peavey

Peavey are one of the largest independently owned suppliers of musical instruments and professional sound equipment in the world. Established by Hartley Peavey in 1965, Peavey hold 130 patents in musical instrument designs and audio technology. Their products can be found in government buildings, theme parks, airports, stadiums and more.

HQ: www.peavey-eu.com

Studio Pro M1
\$199.99

Polar: Cardioid
Dim: 58 x 198 (mm)
Wght: 545g
Freq: 30Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 140dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2.7mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Carry case, stand mount
OA: Studio windscreen, shockmount



Studio Pro M2
\$299.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 58 x 198 (mm)
Wght: 545g
Freq: 30Hz - 20kHz
Out Sens: 12.5, 20, 15 mV/Pa
Max SPL: 145, 140, 144 dB
Self Noise: 20, 16, 18 dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48

Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Carry case, stand mount
OA: Studio windscreen, shockmount

SOS Review (November 2010)
www.soundonsound.com/sos/nov10/articles/peavey-m2.htm



Red5 Audio

Red5 Audio, formed in 2001, are a small Scottish company who manufacture microphones for both the professional and home enthusiast markets, and aim to provide excellent customer service. They also make a range of mic accessories, including shockmounts and pop shields.

HQ: www.red5audio.com





AKG[®] D12 VR

PREMIUM DYNAMIC MICROPHONE FOR LIVE SOUND AND RECORDING APPLICATIONS

AKG[®] Acoustics reinvents the legendary D12 microphone, offering performance, quality and style for every application from instruments to vocals. Featuring the original C414 transformer from the 1970s, the AKG[®] D12 VR is capable of four distinct sound shapes: one in passive mode and three in active mode, P48 powered. So whatever the vibe, throw it down like you mean it with the AKG D12 VR. Made in Austria.

akg.com/d12vr



Four sound settings



Cardioid polar pattern



Legendary AKG sound



High dynamic range

RV10

£155 (US price not available)

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 55 x 200 (mm)
Wght: 585g
Freq: 20Hz - 20kHz
Out Sens: -31, -33, -34 dB +/- 2dB
Max SPL: 135dB (145dB with -10dB pad)
Self Noise: 14dBA
Out Imp: 250Ω
Rec Load: -

Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 125Hz
Slope: 6dB/Oct
SA: Locking flight case, foam wind shield, metal shockmount
OA: -

SOS Review (June 2002)
www.soundonsound.com/sos/jun02/articles/red5mics.asp



RV8

£105 (US price not available)

Polar: Cardioid
Dim: 55 x 200 (mm)
Wght: 578g
Freq: 20Hz - 20kHz
Out Sens: 17.7mV/Pa
Max SPL: 135dB (145dB with -10dB pad)
Self Noise: 16dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 125Hz
Slope: 6dB/Oct
SA: Locking flight case, foam wind shield, metal shockmount
OA: -

SOS Review (June 2002)
www.soundonsound.com/sos/jun02/articles/red5mics.asp



RØDE

Rode are based in Sydney, Australia, where all their microphones are designed, and where the majority of their manufacturing takes place. They make all kinds of mics, from valve and solid-state condensers to lapel and video microphones.

HQ: www.rodemic.com

Broadcaster \$419

Polar: Cardioid
Dim: 167 x 50 x 65 (mm)
Wght: 577g
Freq: 20Hz - 20kHz
Out Sens: 19.9mV/Pa
Max SPL: 128dB
Self Noise: 14dBA
Out Imp: 40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Zip case, stand mount, 10 year warranty
OA: Windshield



NT1-A

\$229 (\$549 for matched pair)

Polar: Cardioid
Dim: 50 x 190 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 25.41mV/Pa
Max SPL: 137dB
Self Noise: 5dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48/24
Alt Pwr: -
SC: -



Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, 3m XLR cable, microphone dust cover, studio tips & tricks DVD, 10 year warranty
OA: Ring mount, windshield, zip case, desk stand

SOS Review (May 2004)
www.soundonsound.com/sos/may04/articles/rodent.htm

NT2-A \$399

Polar: Switchable, including omnidirectional, cardioid, figure-of-8
Dim: 55 x 209 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15.85mV/Pa
Max SPL: 147dB
Self Noise: 7dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48/24
SC: -
Con via: XLR-3 (M)



Pad: -5, -10 dB
Filt Freq: 40Hz, 80Hz
Slope: -
SA: Shockmount, 3m XLR cable, microphone dust cover, studio tips & tricks DVD, 10 year warranty
OA: Ring mount, windshield, zip case, desk stand

SOS Review (March 2005)
www.soundonsound.com/sos/mar05/articles/rodent2a.htm

NT1000 \$329

Polar: Cardioid
Dim: 54 x 209 (mm)
Weight: -
Freq: 20Hz - 20kHz
Out Sens: 15.85mV/Pa
Max SPL: 140dB
Self Noise: 6dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48/24
SC: -
Con via: XLR-3 (M)
Pad: -



Filt Freq: -
Slope: -
SA: Zip case, ring mount, 10 year warranty
OA: Shockmounts, windshield, desk stand

SOS Review (September 2001)
www.soundonsound.com/sos/sep01/articles/rodent1000.asp

NT2000 \$599

Polar: Infinitely variable, including omnidirectional, cardioid, figure-of-8
Dim: 55 x 208 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15.85mV/Pa
Max SPL: 147dB
Self Noise: 7dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48/24
SC: -



Con via: XLR-3 (M)
Pad: Variable 0dB to -10dB
Filt Freq: Variable 20Hz to 150Hz
Slope: -
SA: Carry case, shockmount, 10 year warranty
OA: Shockmount, ring mount, windshield, zip case, desk stand

SOS Review (May 2004)
www.soundonsound.com/sos/may04/articles/rodent.htm

Specification Key — **Polar:** Polar Pattern **Dim:** Dimensions (width & length) **Wght:** Weight **Freq:** Frequency Response **Out Sens:** Output Sensitivity **Out Imp:** Output Impedance **RL:** Recommended Load **Pwr Type:** Powering Type **Alt Pwr:** Powering Alternative **SC:** Supply Current **Con via:** Connection via **Flt Freq:** Filter Frequency **SA:** Supplied accessories **OA:** Optional accessories

sE Electronics

sE Electronics are one of the most prolific modern mic manufacturers. Since being founded in 2000, they've released an enormous range of models covering almost every type of microphone and at pretty much every price level.

USA: www.fingerprntaudio.com
 HQ: www.seelectronics.com

sE4400a \$649

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 57 x 143 (mm)
Wght: 280g
Freq: 20Hz - 20kHz
Out Sens: 24mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 5mA
Con via: XLR-3 (M)
Pad: 10, 20 dB
Flt Freq: 60, 120 Hz
Slope: 3dB/Oct
SA: Shockmount, flight case
OA: Also available as a factory-matched stereo pair including stereo bar



SOS Review (April 2009)

www.soundonsound.com/sos/apr09/articles/se4400a.htm

Gemini 5 \$1099

Polar: Cardioid
Dim: 68 x 183 (mm)
Wght: 820g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa (FET), 31.6mV/Pa (tube)
Max SPL: 130dB (FET), 132dB (tube)
Self Noise: 18dBA

(FET), 16dBA (tube)
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: Dedicated mains PSU
Alt Pwr: -
SC: -
Con via: 8-pin proprietary mic-to-PSU & 2

x XLR
Pad: -
Flt Freq: -
Slope: -
SA: Shockmount, PSU, flight case
OA: Pop shield



G3500 \$799

Polar: Cardioid
Dim: 64 x 145 (mm)
Wght: 740g
Freq: 20Hz - 20kHz
Out Sens: 23.7mV/Pa
Max SPL: 125dB
Self Noise: 12dBA
Out Imp: 200Ω
Rec Load: 1kΩ

Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Flt Freq: -
Slope: -
SA: Shockmount, flight case
OA: Pop shield

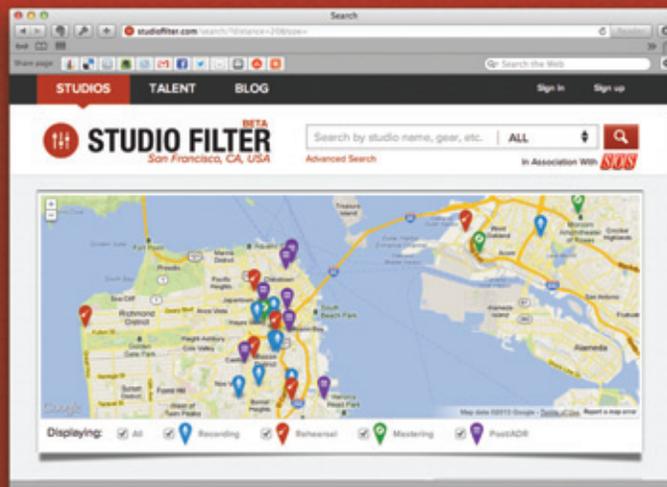


»

Own a studio?
 Create your free profile.



Looking for a studio?



Find it here.



STUDIO FILTER.COM

In Association With
SOUND ON SOUND

sE2200a II
\$399

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 51 x 215 (mm)
Wght: 598g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 135dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA

Con via: XLR-3 (M)
Pad: 10, 20 dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Shockmount
OA: Metal pop shield



T2 Titanium
\$849

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 57 x 143 (mm)
Wght: 280g
Freq: 20Hz - 20kHz
Out Sens: 24mV/Pa
Max SPL: 132dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 5mA
Con via: XLR-3 (M)
Pad: 10, 20 dB
Filt Freq: 60, 120 Hz
Slope: 3dB/Oct
SA: Shockmount, flight case
OA: Metal pop shield



USB2200a
\$399

Polar: Cardioid
Dim: 59 x 163 (mm)
Wght: 565g
Freq: 20Hz - 20kHz
Out Sens: 55mV/Pa
Max SPL: 133dB
Self Noise: 14dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: USB
SC: 4mA
Con via: XLR-3 (M)

Pad: 10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Built-in stand clip, USB cable
OA: Pop shield



X1
\$199

Polar: Cardioid
Dim: 57 x 168 (mm)
Wght: 455g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 137dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: 10dB
Filt Freq: 200Hz
Slope: 3dB/Oct
SA: Microphone clip
OA: Shockmount, metal pop filter

SOS Review (February 2010)
www.soundonsound.com/sos/feb10/articles/x1bundle.htm



Shure

American company Shure make some of the most widely used dynamic mics, including the SM57 and SM58. They also manufacture high-end studio condensers, as well as wireless mic kits.

HQ: www.shure.com

PG42-USB
\$249

Polar: Cardioid
Dim: -
Wght: 453g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 136dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -
SC: 500mA
Con via: USB
Pad: 20dB
Filt Freq: -
Slope: -
SA: USB cable, aluminium carry case, ShureLock rubber isolated shockmount
OA: Windscreen, Popper Stopper



KSM44A
\$999

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 56 x 187 (mm)
Wght: 492g
Freq: 20Hz - 20kHz
Out Sens: 29.8mV/Pa
Max SPL: 152dB
Self Noise: 7.5dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 5.8mA

Con via: XLR-3 (M)
Pad: 15dB
Filt Freq: -
Slope: -
SA: ShureLock cristal elastic shockmount, ShureLock cristal swivel adaptor, aluminium carry case, protective Velveteen pouch, suspension shockmount, elastic cord
OA: Windscreen, padded and zippered carry bag, Popper Stopper magnetic pop filter, ShureLock rubber suspension shockmount



PG27-USB \$199

Polar: Cardioid
Dim: -
Wght: 452g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 144dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: USB
Alt Pwr: -
SC: 500mA
Con via: USB

Pad: 20dB
Filt Freq: -
Slope: -
SA: USB cable, padded zipper pouch, stand adaptor
OA: Windscreen, Popper Stopper, ShureLock rubber isolated shockmount



KSM42 \$799

Polar: Cardioid
Dim: 56 x 185 (mm)
Wght: 494g
Freq: 60Hz - 20kHz
Out Sens: 14.1mV/Pa
Max SPL: 139dB
Self Noise: 8.5dBA
Out Imp: 147Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Magnetic pop filter, ShureLock rubber suspension shockmount, aluminium carry case, protective Velveteen pouch, suspension mount O-rings
OA: Windscreen, padded and zippered carry bag, swivel stand mount



Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

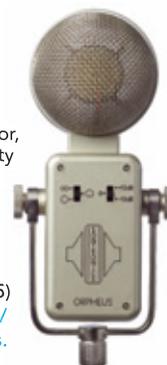
HQ: www.sontronics.com

Orpheus \$649

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 86 x 204 (mm)
Wght: 894g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 16dBA
Out Imp: <=200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10, +10 dB
Filt Freq: -
Slope: -
SA: Yokemount, angled microphone clip, stand adaptor, wooden case, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, professional microphone stand

SOS Review (September 2005)
www.soundonsound.com/sos/sep05/articles/sontronicsmics.htm



Saturn \$1199

Polar: Omnidirectional, subcardioid, cardioid, hypercardioid, figure-of-8
Dim: 50 x 164 (mm)
Wght: 421g
Freq: 20Hz - 20kHz +/- 1dB
Out Sens: 11mV/Pa
Max SPL: 130dB
Self Noise: 14dBA
Out Imp: <200Ω



Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 125 Hz
Slope: -
SA: Shockmount, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, professional microphone stand
SOS Review (September 2005)
www.soundonsound.com/sos/sep05/articles/sontronicsmics.htm

STC-2 \$329

Polar: Cardioid
Dim: 53 x 194 (mm)
Wght: 683g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 75Hz
Slope: -
SA: Spider shockmount, 2 x elastics, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, professional microphone stand



STC-2X \$399

Polar: Omnidirectional, cardioid
Dim: 53 x 194 (mm)
Wght: 621g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: -
SA: Spider shockmount, 2 x elastics, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, professional microphone stand



STC-20 \$225

Polar: Cardioid
Dim: 53 x 194 (mm)
Wght: 596g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 120dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone mounting ring, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, professional microphone stand



STC-20 PACK
\$275

Polar: Cardioid
Dim: 53 x 194 (mm)
Wght: 596g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 120dB
Self Noise: -
Out Imp: 200Ω
Pwr Type: P48
Alt Pwr: -
Con via: XLR-3 (M)
SC: -
Pad: -

Filt Freq: -
Slope: -
SA: Shockmount, popshield, XLR cable, microphone pouch
OA: -



STC-3X PACK
\$425

Polar: Cardioid, omnidirectional, figure-of-eight
Dim: 53 x 194 (mm)
Wght: 614g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 120dB
Self Noise: 18dBA
Out Imp: 200Ω
Pwr Type: P48
Alt Pwr: -
Con via: XLR-3 (M)

SC: -
Pad: 0dB, -10dB, -20dB
Filt Freq: linear, 75Hz, 150Hz
Slope: -
SA: Shockmount, popshield, XLR cable, zip-up microphone pouch
OA: -



Sony

Sony Electronics' full line of professional audio technology ranges from portable audio recorders to wireless and wired microphone technology and headphones. They make mics for a wide range of applications, including recording, live sound, theatrical performance and journalism.

HQ: <http://pro.sony.com>

C38B
\$2,856 MSRP

Polar: Omnidirectional
Dim: 78 x 214 (mm)
Wght: 650g
Freq: 30Hz - 18kHz
Out Sens: 3.98mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: -
Alt Pwr: 9V battery, DC 24-48V
SC: -

Con via: XLR-3 (M)
Pad: -8dB
Filt Freq: -
Slope: -
SA: Carry case, stand adaptors, screwdriver
OA: -



Studio Projects

Studio Projects Microphones — a division of PMI Audio Group — are a California-based design house, headed by Brent Casey, which specialises in microphones and electronics for the professional audio market. Founded by Alan Hyatt, the company is entering its 13th year.

USA: www.pmiaudio.com
HQ: www.studioprojectsusa.com

CS-1000 Bundle
\$399.99

Polar: Cardioid
Dim: 52 x 215 (mm)
Wght: 589g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 156dB
Self Noise: 11dBA
Out Imp: 50Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)
Pad: 5, 10, 15, 20 dB
Filt Freq: 1.5kHz, 7kHz, 5kHz, 3kHz, 50Hz, 75Hz, 150Hz, 300Hz
Slope: 6dB/Oct
SA: Spider shockmount, pop filter, custom pouch, XLR cable
OA: Metal pop screen, Litz wire microphone cable



CS5
\$299.99

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 52 x 215 (mm)
Wght: 589g
Freq: 20Hz - 20kHz
Out Sens: 19.95mV/Pa
Max SPL: 156dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: 1.2kΩ
Pwr Type: P48

Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)
Pad: 5, 10, 15, 20 dB
Filt Freq: 1.5kHz, 7kHz, 5kHz, 3kHz, 50Hz, 75Hz, 150Hz, 300Hz
Slope: 6dB/Oct
SA: Halo shockmount, foam windscreen, flight case
OA: Metal pop screen, Litz wire microphone cable



LSD-2 \$599

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 52 x 283 (mm)
Wght: 816g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 142dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2.5mA

Con via: XLR-5 (M)
Pad: 10dB
Flt Freq: 150Hz
Slope: 6dB/Oct
SA: Magnum-sized windscreen, Halo shockmount, wooden case, XLR-5 (M) to XLR-3 (M) adaptor
OA: Metal pop screen, Litz wire microphone cable



LSM \$179.99

Polar: Cardioid
Dim: 74 x 130 (mm)
Wght: 317g
Freq: 20Hz - 20kHz
Out Sens: 25.11mV/Pa
Max SPL: 150dB
Self Noise: 14dBA
Out Imp: 150Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2.8mA

Con via: Mini-XLR, Mini-USB
Pad: -
Flt Freq: -
Slope: -
SA: Mini-to-standard XLR cable (2m), mini USB cable
OA: -



SP B1 \$119.99

Polar: Cardioid
Dim: 52 x 182 (mm)
Wght: 499g
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 137dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: 10, 20 dB
Flt Freq: 75, 150 Hz
Slope: 6dB/Oct
SA: Shockmount, foam windscreen, wooden case
OA: Metal pop screen, Litz wire microphone cable

SOS Review (June 2005)
www.soundonsound.com/sos/jun05/articles/studioprojectsb1.htm



SP B3 \$159.99

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 52 x 182 (mm)
Wght: 499g
Freq: 20Hz - 20kHz
Out Sens: 14, 16, 18 mV/Pa
Max SPL: 132dB
Self Noise: 14dBA
Out Imp: 50Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.1mA
Con via: XLR-3 (M)
Pad: 10dB
Flt Freq: 150Hz
Slope: 6dB/Oct
SA: Shockmount, foam windscreen, wooden case
OA: Metal pop screen, 20' Litz wire microphone cable



SP C1 \$249.99

Polar: Cardioid
Dim: 52 x 226 (mm)
Wght: 762g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 151dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.5mA
Con via: XLR-3 (M)

Pad: 10, 20 dB
Flt Freq: 75, 150 Hz
Slope: 6dB/Oct
SA: Halo shockmount, foam windscreen, wooden case
OA: Metal pop screen, Litz wire microphone cable

SOS Review (December 2002)
www.soundonsound.com/sos/dec02/articles/studioprojects.asp



Wunder Audio

Wunder Audio started off repairing mixing consoles and building mic preamps in 1999. Today, they make a wide range of vintage-inspired microphones, including valve and solid-state models. They also now make their own mixing console, the Wunderbar.

USA: www.vintageking.com
HQ: www.wunderaudio.com

CM7FET \$2000

Polar: Supercardioid
Dim: 63 x 160 (mm)
Wght: 700g
Freq: 20Hz - 16kHz
Out Sens: 8mV/Pa
Max SPL: 147dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 0.5mA
Con via: XLR-3 (M)

Pad: -
Flt Freq: -
Slope: -
SA: Shockmount, oak box
OA: -



CAPACITOR MICROPHONES: SMALL-DIAPHRAGM

In theory, the smaller the mic diaphragm, the more accurately the incident sound is captured. However, if the diaphragm diameter is made very small, it picks up correspondingly less sound energy and so tends to suffer from noise problems due to the high levels of amplification needed. In typical studio applications, small-diaphragm mics tend to have capsule diameters in the order of 12mm or so, though there are exceptions. Most small-diaphragm models are less 'coloured' sounding than their large-diaphragm counterparts but, because of the smaller capsule size, valve models and those with switchable patterns are far less common. It's more usual, where various patterns may be required from a small-diaphragm microphone, to find a range of 'swappable' capsules. Small-diaphragm capacitor mics are a popular choice for the accurate recording of acoustic instruments.



AKG

Founded in Vienna in 1947, AKG Acoustics are a manufacturer of microphones, headphones, wireless audio systems and related accessories for professional and consumer markets. Some of their vintage models, like the C12, are both rare and desirable, while their current models, including the C414, can be found in studios around the world.

HQ: www.akg.com

Blue Line C391B \$499

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8, long rifle
Dim: 19 x 110 (mm)
Wght: 80g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P9-52
Alt Pwr: -

SC: <2mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: 12dB/Oct
SA: -
OA: Various capsules: cardioid, omnidirectional, hypercardioid, figure-of-8, lavalier, shotgun



Blue Line SE300B \$279

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8, long rifle
Dim: 19 x 110 (mm)
Wght: 80g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P9-52
Alt Pwr: -

SC: <2mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: 12dB/Oct
SA: -
OA: Various capsules: cardioid, omnidirectional, hypercardioid, figure-of-8, lavalier, shotgun



C430 \$199

Polar: Cardioid
Dim: 19 x 79 (mm)
Wght: 23g
Freq: 20Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 126dB
Self Noise: 33dBA
Out Imp: 200Ω
Rec Load: >2kΩ
Pwr Type: P9-52
Alt Pwr: -
SC: 2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand adaptor, protective case, windscreen
OA: -



C451B \$499

Polar: Cardioid
Dim: 19 x 160 (mm)
Wght: 125g
Freq: 20Hz - 20kHz (±3dB)
Out Sens: 9mV/Pa
Max SPL: 155dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P9-52V
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: 12dB/Oct
SA: Stand adaptor, soft case, windscreen
OA: Stereo bar, shockmount, pop screen, external power supply



C480 B-ULS \$799

Polar: Omnidirectional, cardioid, hypercardioid, short rifle, long rifle
Dim: 21 x 150 (mm)
Wght: 140g
Freq: 10Hz - 30kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: >2kΩ
Pwr Type: P48
Alt Pwr: -

SC: <2mA
Con via: XLR-3 (M)
Pad: +6, -10 dB
Filt Freq: 70, 50 Hz
Slope: 12dB/Oct
SA: Stand adaptor, hard case, windscreen
OA: Various capsules: cardioid, omnidirectional, hypercardioid, dual shotgun. Shockmount, stereo bar



Perception 120 \$99

Polar: Cardioid
Dim: 53 x 165 (mm)
Wght: 525g
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 150dB
Self Noise: 22dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: <3mA
Con via: XLR-3 (M)

Pad: -20dB
Filt Freq: 300Hz
Slope: 12dB/Oct
SA: Stand adaptor
OA: Pop screen, spider suspension, windscreen

SOS Review (May 2011)
www.soundonsound.com/sos/may11/articles/akg-perception-120.htm



Perception 170 \$99

Polar: Cardioid
Dim: 22 x 160 (mm)
Wght: 130g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 155dB
Self Noise: <21dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: -20dB
Filt Freq: -
Slope: -
SA: Stand adaptor
OA: Shockmount, stereo bar, pop screen

SOS Review (February 2009)
www.soundonsound.com/sos/feb09/articles/akgperception.htm



Perception 120 USB \$149

Polar: Cardioid
Dim: -
Wght: 460g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: USB

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



C5 \$179

Polar: Cardioid
Dim: 185 (mm)
Wght: 345g
Freq: 65Hz - 20kHz
Out Sens: 4mV/Pa
Max SPL: 140dB, 145dB
Self Noise: -
Out Imp: 200Ω
Rec Load: 2kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



C1000S \$229

Polar: Hypercardioid, cardioid
Dim: -
Wght: 320g
Freq: 50Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 137dB
Self Noise: -
Out Imp: 200Ω
Rec Load: 2kΩ
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Audio-Technica

For 50 years Audio-Technica have aimed to produce audio excellence and innovations in transducer technology. Renowned for the design and manufacture of high-quality audio products, the company offers a complete range of wired and wireless microphones, headphones and accessories for broadcast, live-sound, recording and installed-sound functions.

HQ: www.audio-technica.com

AT4021 \$349

Polar: Cardioid
Dim: 21 x 144 (mm)
Wght: 119g
Freq: 20Hz - 20kHz
Out Sens: 19.9mV/Pa
Max SPL: 146dB
Self Noise: 14dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Stand clamp, windscreen, protective carry case
OA: -



AT4022 \$349

Polar: Omnidirectional
Dim: 21 x 144 (mm)
Wght: 124g
Freq: 20Hz - 20kHz
Out Sens: 19.9mV/Pa
Max SPL: 146dB
Self Noise: 13dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Stand clamp, windscreen, protective carry case
OA: -



AT4041 \$299

Polar: Cardioid
Dim: 21 x 160 (mm)
Wght: 120g
Freq: 20Hz - 20kHz
Out Sens: 15.8mV/Pa
Max SPL: 145dB
Self Noise: -
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3.2mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Stand clamp, windscreen, protective carry case
OA: -



ATM450 \$249

Polar: Cardioid
Dim: 21 x 127 (mm)
Wght: 98g
Freq: 40Hz - 20kHz
Out Sens: 8.9mV/Pa
Max SPL: 152dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P11-52
Alt Pwr: -
SC: 3.5mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Isolation clamp, windscreen, soft protective pouch
OA: -



Audix

Founded in 1984 in California, Audix are a well-respected manufacturer of microphones for stage, studio and specialised purposes. Their microphones have long been popular with recording engineers.

HQ: www.audixusa.com

SCX1 \$590

Polar: Cardioid
Dim: 104 (mm)
Wght: 114g
Freq: 40Hz - 20kHz
Out Sens: 26mV/Pa
Max SPL: 130dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, wood box, windscreen
OA: -



SCX1HC \$615

Polar: Hypercardioid
Dim: 104 (mm)
Wght: 114g
Freq: 40Hz - 20kHz
Out Sens: 26mV/Pa
Max SPL: 130dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, wood box, windscreen
OA: -



M44HC \$390

Polar: Hypercardioid
Dim: 54 (mm)
Wght: 20g
Freq: 50Hz - 19kHz
Out Sens: 3mV/Pa
Max SPL: 150dB
Self Noise: 25dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: DVICE & lug-mount clips, windscreen, pouch
OA: -



M44 \$370

Polar: Cardioid
Dim: 54 (mm)
Wght: 20g
Freq: 50Hz - 19kHz
Out Sens: 3mV/Pa
Max SPL: 150dB
Self Noise: 25dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: DVICE & lug-mount clips, windscreen, pouch
OA: -



M1250B \$410

Polar: Cardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1250BHC \$430

Polar: Hypercardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1250BO \$410

Polar: Cardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1250BS

\$450

Polar: Supercardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1255B

\$430

Polar: Cardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 38mV/Pa
Max SPL: 130dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1255BO

\$430

Polar: Omnidirectional
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 38mV/Pa
Max SPL: 130dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1255BHC

\$450

Polar: Hypercardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 38mV/Pa
Max SPL: 130dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1255BS

\$470

Polar: Supercardioid
Dim: 54 (mm)
Wght: 16g
Freq: 50Hz - 19kHz
Out Sens: 38mV/Pa
Max SPL: 130dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: White finish, MicroBoom system, mounting options



M1280B

\$430

Polar: Cardioid
Dim: 67 (mm)
Wght: 28g
Freq: 40Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 147dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: MicroBoom system, mounting options



M1280BHC

\$450

Polar: Hypercardioid
Dim: 67 (mm)
Wght: 28g
Freq: 40Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 147dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: MicroBoom system, mounting options



M1280BO

\$430

Polar: Omni
Dim: 67 (mm)
Wght: 28g
Freq: 40Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 147dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: MicroBoom system, mounting options



TM1

\$325

Polar: Omni
Dim: 150 (mm)
Wght: 132g
Freq: 20Hz - 25kHz
Out Sens: 6mV/Pa
Max SPL: 130dB
Self Noise: 28dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: Threaded windscreen, calibrator adaptor



M1280BS

\$470

Polar: Supercardioid
Dim: 67 (mm)
Wght: 28g
Freq: 40Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 147dB
Self Noise: 21dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Mini XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clip, hanging clip, windscreen
OA: MicroBoom system, mounting options



Avantone

Avantone are best known for their Mixcube single-driver loudspeakers, but they also make a range of high-quality solid-state and valve condenser microphones, as well as dynamic drum mics and ribbon mics.

HQ: www.avantonepro.com

CK1

\$149

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 23 x 153 (mm)
Wght: 148g
Freq: 25Hz - 20kHz (±3dB)
Out Sens: 15mV/Pa
Max SPL: 138dB
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 5mA

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Padded wooden microphone box, 19mm omnidirectional, cardioid and hypercardioid capsules
OA: -



Behringer

Behringer were founded in 1989 and offer equipment for a range of applications at consumer prices. They produce a comprehensive product line including loudspeakers, amplifiers, mixers, powered mixers, computer-based recording and DJ products, microphones, headphones, wireless systems, musical instruments and professional lighting systems.

HQ: www.behringer.com

B-5

\$79

Polar: Omnidirectional, cardioid
Dim: 20 x 120 (mm)
Wght: 90g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa (omnidirectional), 12.6mV/Pa (cardioid)
Max SPL: 150dB (omnidirectional), 140dB (cardioid)
Self Noise: -
Out Imp: 70Ω

Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 150Hz
Slope: 6dB/Oct
SA: Cardioid and omnidirectional capsules, stand adaptor, windscreen, transport case
OA: -



ECM8000

\$60

Polar: Omnidirectional
Dim: -
Wght: 120g
Freq: 15Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 120dB
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: P15-48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand adaptor, transport case
OA: -



C-2

\$65 (pair)

Polar: Cardioid
Dim: 20 x 94 (mm)
Wght: 90g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 140dB, 150dB (with pad)
Self Noise: -
Out Imp: 75Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 120Hz
Slope: 6dB/Oct
SA: Stand adaptors, stereo bar, windscreen, transport case
OA: -



C-4

\$76 (pair)

Polar: Cardioid
Dim: 23 x 94 (mm)
Wght: 60g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 136dB
Self Noise: -
Out Imp: 75Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 120Hz
Slope: 6dB/Oct
SA: Stand adaptor, stereo bar, windscreen, transport case
OA: -



Beyerdynamic

Beyerdynamic have been an industry leader in the design and manufacture of premium-grade microphones, headphones and wireless microphone systems since 1924. Their microphone range covers pretty much every type, including dynamic, capacitor and ribbon models.

HQ: www.beyerdynamic.com

MC 930

\$629

Polar: Cardioid
Dim: 21 x 128 (mm)
Wght: 115g
Freq: 40Hz - 20kHz
Out Sens: 30mV/Pa
Max SPL: 125dB
Self Noise: 16dBA
Out Imp: 180Ω
Rec Load: >1kΩ
Pwr Type: P11-52
Alt Pwr: -
SC: 4.6mA
Con via: XLR-3 (M)

Pad: -15dB
Filt Freq: 250Hz
Slope: 6dB/Oct
SA: Clamp, padded pouch
OA: Elastic suspension, windscreen, hanging mounting clip



Capture imagination.



Microphones as individual as you are.



MCE 530
\$179

Polar: Cardioid
Dim: 20 x 100 (mm)
Wght: 36g
Freq: 30Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 136dB
Self Noise: 22dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: P12-48
Alt Pwr: -
SC: 6mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp
OA: Elastic suspension, windscreen, hanging mounting clip



MCE 837
\$1379

Polar: Long rifle
Dim: 21 x 516 (mm)
Wght: 218g
Freq: 40Hz - 20kHz
Out Sens: 30mV/Pa
Max SPL: 130dB
Self Noise: 13dBA
Out Imp: 180Ω
Rec Load: >1kΩ
Pwr Type: P11-52
Alt Pwr: -
SC: 4.3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Padded pouch
OA: Elastic suspension, wind shield



TG V56C
\$279

Polar: Cardioid
Dim: 48 x 180 (mm)
Wght: 265g
Freq: 40Hz - 20kHz
Out Sens: 3.3mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 190Ω
Rec Load: -
Pwr Type: P12-48 (P48 recommended)
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Wind shield



TG V96C
\$699

Polar: Cardioid
Dim: 48 x 185 (mm)
Wght: 330g
Freq: 20Hz - 20kHz
Out Sens: 4mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 60Ω
Rec Load: -
Pwr Type: P24-48 (P48 recommended)
Alt Pwr: -
SC: 4.3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, protective case
OA: -



TG i53C
\$129

Application: Percussion, strings, brass
Polar: Cardioid
Dim: 20 x 100 (mm)
Wght: 36g
Freq: 20Hz - 20kHz
Out Sens: 6.8mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P12-48
Alt Pwr: -

SC: 4.7mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Hanging microphone clamp, standard microphone clamp, wind shield



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics Blue Microphones products offer innovative design and high performance.

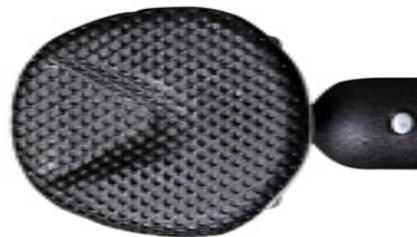
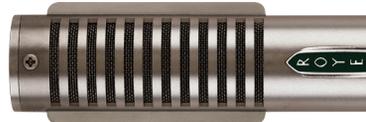
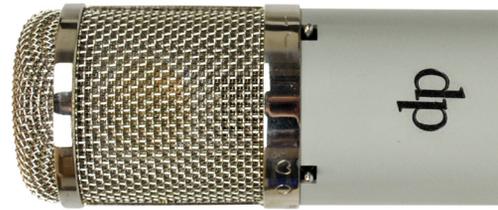
HQ: www.bluemic.com

Spark
\$199.99

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 28mV/Pa
Max SPL: 128dB
Self Noise: 10dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, custom shockmount, custom pop filter
OA: Universal pop filter, XLR to USB converter





se·lec·tion

[sə'lekSHən]

noun

- 1. the action or fact of carefully choosing someone or something as being the best or most suitable
- 2. a number of carefully chosen things
- 3. what you get with Vintage King



VINTAGEKING.COM

NEW | USED | VINTAGE

888.653.1184

Charter Oak

Charter Oak, founded in 2002 by producer and engineer Michael Deming, create high-quality, hand-assembled recording products that rival higher-priced microphones and signal processors in the industry. The studio background of its founder gives Charter Oak the inside edge and has resulted in multi-award-nominated products.

HQ: www.charteroakacoustics.com

M900 \$549

Polar: Omnidirectional, cardioid, hypercardioid
Dim: -
Wght: -
Freq: 30Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 137dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: 48V
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: 6dB/Oct
SA: Three capsules, flight case, shockmount
OA: -



M900T \$999

Polar: Omnidirectional, cardioid, hypercardioid
Dim: -
Wght: -
Freq: 25Hz - 20kHz
Out Sens: -34dB (0dB=1V/Pa)
Max SPL: 138dB
Self Noise: 13.5dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: Proprietary power supply

Alt Pwr: -
SC: -
Con via: -
Pad: -15dB
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Case, shockmount
OA: -



S700 \$749

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 125dB
Self Noise: 17dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: Custom power supply
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



DPA

DPA Microphones are a leading manufacturer of high-quality condenser microphones for studio, broadcast, theatre, film and sound reinforcement environments. All DPA microphones and components are manufactured at the company's purpose-built factory in Denmark.

HQ: www.dpamicrophones.com

4006A \$1859

Polar: Omnidirectional
Dim: 19 x 170 (mm)
Wght: 163g
Freq: 10Hz - 20kHz
Out Sens: 40mV/Pa
Max SPL: 147dB
Self Noise: 15dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -20dB
Filt Freq: -
Slope: -
SA: Windscreen, holder, three grids
OA: Holder, shockmount, nose cone, gooseneck mount, stereo booms, Peli case



4006C \$1719

Polar: Omnidirectional
Dim: 19 x 64 (mm)
Wght: 63g
Freq: 20Hz - 20kHz (±2dB)
Out Sens: 40mV/Pa
Max SPL: 140dB
Self Noise: 15dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, holder, three grids
OA: Suspension mount, cable with slim connector, nose cone, gooseneck mount, stereo booms, Peli case



4011A \$1699

Polar: Cardioid
Dim: 19 x 170 (mm)
Wght: 158g
Freq: 40Hz - 20kHz +/- 2dB
Out Sens: 10mV/Pa
Max SPL: 159dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -20dB
Filt Freq: -
Slope: -
SA: Windscreen, holder
OA: Shockmount, holder, gooseneck mount, stereo booms, Peli case



4015A
\$1699

Polar: Hemispherical
Dim: 19 x 170 (mm)
Wght: 158g
Freq: 40Hz - 20kHz +/- 2dB
Out Sens: 10mV/Pa
Max SPL: 159dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -20dB
Filt Freq: -
Slope: -
SA: Windscreen, holder
OA: Shockmount, holder, cable with slim XLR connector, gooseneck mount, stereo booms, Peli case



4011C
\$1549

Polar: Cardioid
Dim: 19 x 64 (mm)
Wght: 58g
Freq: 40Hz - 20kHz (±2dB)
Out Sens: 10mV/Pa
Max SPL: 152dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: Windscreen, holder
OA: Suspension mount, shockmount, holder, cable with slim XLR connector, gooseneck mount, stereo booms, Peli case



4015C
\$1549

Polar: Hemispherical
Dim: 19 x 64 (mm)
Wght: 58g
Freq: 40Hz - 20kHz +/- 2dB
Out Sens: 10mV/Pa
Max SPL: 152dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -

Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, holder
OA: Cable with slim XLR connector, gooseneck mount, stereo booms, Peli case



»



Designed by acclaimed microphone designer David Royer, Mojave Audio builds microphones of uncompromising quality that are within reach of anyone who is serious about recording. David's 'simple yet elegant' designs are all modern originals - based on the classics but not limited to the past.

Step up to a Mojave - you'll be glad you did!

"David Royer has made another winner. The MA-301fet is a versatile, multi-pattern condenser that has a vintage flavor, yet projects an accurate, fast response, with a non-hyped top end with oodles of smoothness."

John Gatski - Sound On Sound

"The MA-300 instantly became an integral part of my drum sounds. From the moment I first put a pair up, they have continued to impress me with a wide open and balanced sound."

Ryan Hewitt, Engineer/Mixer: Avett Brothers, Red Hot Chili Peppers, blink-182, Flogging Molly

"Finished tracking a wonderful record yesterday. The MA-100 is a STAR. But you know that. Best snare mic on the planet!"

Mick Wordley - Mixmasters Productions



www.mojaveaudio.com Follow us on



4017B
\$1699

Polar: Short rifle
Dim: 19 x 212 (mm)
Wght: 68g
Freq: 70Hz - 20kHz (±2dB)
Out Sens: 19mV/Pa
Max SPL: 152dB
Self Noise: 14dBA
Out Imp: <150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 50Hz
Slope: -
SA: Windscreen, holder
OA: Shockmount, holder, cable, Rycote fur wind shield, Rycote Windjammer, Rycote suspension, Rycote XLR holder



D:Facto II
\$899

Polar: Supercardioid
Dim: 52mm
Wght: 309g
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 160dB
Self Noise: 19dB(A) ref 20μPa
Out Imp: <100Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Zipper case and mic clip
OA: -



Earthworks

American company Earthworks started out making test and measurement microphones, and their current mics still follow the ethos of aiming to sound as neutral and transparent as possible. All of their products — including their studio monitors — have unusually high bandwidths.

HQ: www.earthworksaudio.com

M30
\$649

Polar: Omnidirectional
Dim: 22 x 229 (mm)
Wght: 225g
Freq: 5Hz - 30kHz (±1dB)
Out Sens: 30mV/Pa
Max SPL: 142dB
Self Noise: 22dBA
Out Imp: 100Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, protective case, ADP1 adaptor
OA: Wooden box, shockmount microphone clip, foam teardrop windscreen, 100mph windscreen, foam windscreen, LevelPad switchable -15 or -30 dB



QTC40
\$1349

Polar: Omnidirectional
Dim: 229mm x 22mm
Wght: 225g
Freq: 4Hz - 40kHz (±1dB)
Out Sens: 30mV/Pa
Max SPL: 142dB
Self Noise: 22dBA
Out Imp: 100Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Foam windscreen
OA: -



SR40V
\$999

Polar: Hypercardioid
Dim: 55 x 184 (mm)
Wght: 363g
Freq: 30Hz - 40kHz (±1.5dB)
Out Sens: 10mV/Pa
Max SPL: 145dB
Self Noise: 22dBA
Out Imp: 100Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip
OA: -



SR20
\$599

Polar: Cardioid
Dim: 22 x 212 (mm)
Wght: 135g
Freq: 50Hz - 20kHz (±2dB)
Out Sens: 10mV/Pa
Max SPL: 145dB
Self Noise: 22dBA
Out Imp: 100Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip, black aluminium windscreen
OA: Shockmount microphone clip, foam windscreen, LevelPad switchable -15 or -30 dB



SR30/HC \$849

Polar: Hypercardioid
Dim: 22 x 212 (mm)
Wght: 225g
Freq: 30Hz - 30kHz (± 1.5 dB)
Out Sens: 10mV/Pa
Max SPL: 145dB
Self Noise: 22dBA
Out Imp: 100 Ω
Rec Load: 600 Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip
OA: Shockmount microphone clip, stainless steel screw-on windscreen, large foam windscreen, wooden box, LevelPad switchable -15 or -30 dB



TC25 \$549

Polar: Omnidirectional
Dim: 22 x 165 (mm)
Wght: 160g
Freq: 9Hz - 25kHz ($+1/-3$ dB)
Out Sens: 8mV/Pa
Max SPL: 145dB
Self Noise: 27dBA
Out Imp: 100 Ω
Rec Load: 600 Ω
Pwr Type: P48
Alt Pwr: -
SC: 10mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip
OA: Shockmount microphone clip, foam teardrop windscreen, 100mph foam windscreen, LevelPad switchable -15 or -30 dB



Electro-Voice

Electro-Voice (commonly referred to as EV) are a manufacturer of audio equipment, including microphones, amplifiers and loudspeakers. Electro-Voice market their products for use in small or large concert venues, broadcasting, houses of worship, and recording situations.

HQ: www.electrovoice.com

RE920Tx \$189

Polar: Cardioid
Dim: 11 x 158 (mm)
Wght: 54g
Freq: 80Hz - 18kHz
Out Sens: 1.3mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 1k Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Golden Age Project

Golden Age Project are a spin-off of the high-end pro audio distribution activities of Golden Age Music, a Swedish company founded by Bo Medin in 1982. Golden Age Project offer affordable vintage-style products.

USA: www.raddist.com

HQ: www.goldenagemusic.se

FC4 \$59

Polar: Cardioid
Dim: 30 x 140 (mm)
Wght: 200g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 250 Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 100Hz
Slope: -
SA: Shockmount, wooden case
OA: -



Josephson

Josephson Engineering are a microphone manufacturer catering to the professional studio, home studio, broadcast and live sound markets. The company was founded in 1988.

HQ: www.josephson.com

C42 \$435

Polar: Cardioid
Dim: -
Wght: -
Freq: 40Hz - 20kHz (± 2 dB)
Out Sens: 8.5mV/Pa
Max SPL: 135dB
Self Noise: <21dBA
Out Imp: 50 Ω
Rec Load: >1k Ω
Pwr Type: P48
Alt Pwr: -
SC: 4.5mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shock-resistant microphone clip, pouch
OA: Pop screen



C617
\$9800

Polar: Omnidirectional
Dim: -
Wght: -
Freq: 10Hz - 20kHz (±1dB)
Out Sens: 66mV/Pa
Max SPL: 127dB
Self Noise: <14dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shock-resistant microphone clip, pouch
OA: Spherical baffle, stereo microphone baffle



C42MP
\$975 (matched pair)

Polar: Cardioid
Dim: -
Wght: -
Freq: 40Hz - 20kHz (±2dB)
Out Sens: 8.5mV/Pa
Max SPL: 135dB
Self Noise: <21dBA
Out Imp: 50Ω
Rec Load: >1kΩ

Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shock-resistant microphone clip, Pelican brand hard case
OA: Pop screen



e22S
\$1335

Polar: Cardioid
Dim: -
Wght: -
Freq: -
Out Sens: 3mV/Pa
Max SPL: 144dB
Self Noise: <15dBA
Out Imp: <15Ω
Rec Load: 200Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shock-resistant microphone clip, pouch
OA: -



JTS

JTS Professional, founded in 1982, are a Taiwan-based manufacturer of professional wired and wireless microphones, conference and tour-guide systems, headphones and earphones. JTS have official distributors in over 70 countries, and are also an OEM supplier of tailor-made products.

USA: www.shsint.net
HQ: www.jts.com.tw

JS-22
\$109

Polar: Cardioid
Dim: 23 x 150 (mm)
Wght: 130g
Freq: 20Hz - 20kHz
Out Sens: 15.8mV/Pa
Max SPL: 140dB
Self Noise: 20dBA
Out Imp: 100Ω
Rec Load: >1kΩ
Pwr Type: P36-52
Alt Pwr: -
SC: <3mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Windscreen
OA: -



JZ Microphones

JZ Microphones were established in 2007 in Latvia by Juris Zarins. Producing capsules made with the 'Golden Drop' sputtering technique, which provides a more detailed and transparent capsule response, JZ Microphones have been used by many award-winning musicians, sound engineers and famous studios around the world.

HQ: www.jzmic.com

BT-201
\$479

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: 140dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: >250Ω
Pwr Type: -
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: Holder, optional omnidirectional, cardioid or open cardioid -20dB capsules





Earthworks QTC40

Love the sound of your instrument?

Why let your microphone change it? By starting with an honest recording, you can make sonic coloration choices after you've had the chance to hear your instrument in its purist form. Then you can determine what, if any, adjusting your sound needs.

The Earthworks QTC40 doesn't impart any character to your recordings. Rather, it lets your instrument shine with the truest and cleanest capture. With its 9Hz - 40kHz extended frequency response, near perfect polar pattern, ultra-fast impulse response and time coherency, the QTC40 delivers life-like realism and total clarity to your recordings. Earthworks. Hearing is believing.



The True Capture QTC40.

Experience it at earthworksaudio.com/qtc40

MADE IN USA • 15 YEAR WARRANTY

 **Earthworks**[®]
HIGH DEFINITION MICROPHONES™

BT-201/3s
\$549

Polar: Omnidirectional, cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: 140dB
Self Noise: 12dBA
Out Imp: 50Ω
Rec Load: >250Ω
Pwr Type: P48
Alt Pwr: -
SC: <2mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: 2 x BT-201 microphones, 6 interchangeable capsules, wooden case
OA: Holder, optional omnidirectional or open cardioid -20dB capsules



BT-301
\$1599

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 33mV/Pa
Max SPL: 133.5dB
Self Noise: 5.5dBA
Out Imp: 50Ω
Rec Load: 500Ω
Pwr Type: P48
Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: Holder



Karma Microphones

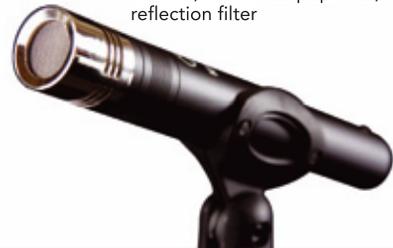
Karma Audio are located in Cupertino, CA, and design, manufacture, and distribute a full range of professional recording microphones. Karma Audio's product philosophy is to provide distinctive, affordable and high-quality microphones that enable a new generation of recording engineers to produce music. The company were founded in 2001.

HQ: www.karmamics.com

K10
\$129 (matched pair)

Polar: Cardioid
Dim: 24 x 163 (mm)
Wght: 284g
Freq: 20Hz - 18kHz
Out Sens: 12.59mV/Pa
Max SPL: 128dB
Self Noise: -
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: 2 x K10 microphones, 2 x microphone clips, hard case
OA: In-line XLR pad & phase reverse, dual-head pop filter, reflection filter



LD Systems

LD Systems is a brand name of the Adam Hall Group, associated with a wide range of value-for-money audio products over the last decade. They offer a range of Chinese-sourced microphones, with German assembly and quality control, incorporating both moving-coil and capacitor models for stage and studio.

HQ: www.ld-systems.com

D1102
€69

Polar: Cardioid
Dim: 23 x 153 (mm)
Wght: 240g
Freq: 20Hz - 20kHz
Out Sens: 11mV/Pa
Max SPL: 134dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Lewitt

Founded in 2010, Vienna-based Lewitt produce high-performance microphones designed to deliver clarity and fidelity, and to work in a variety of demanding studio and live applications. Lewitt build recording, wireless, performance and drum microphones.

USA: www.trunorthmusicandsound.com
HQ: www.lewitt-audio.com

LCT 140
\$249

Polar: Cardioid
Dim: 24 x 160 (mm)
Wght: 195g
Freq: 30Hz - 20kHz (±3dB)
Out Sens: 8mV/Pa
Max SPL: 143dB
Self Noise: 19dBA
Out Imp: <150Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 5.3mA
Con via: XLR-3 (M)

Pad: -10, -20 dB
Filt Freq: 40, 300 Hz
Slope: 12, 6 dB/Oct
SA: Leather bag, windscreen, rubber mount
OA: Shockmount, stereo mount, pop shield



LCT 340 \$399

Polar: Omnidirectional, cardioid
Dim: 24 x 160 (mm)
Wght: 200g
Freq: -
Out Sens: 9mV/Pa
Max SPL: 139dB
Self Noise: 15dBA
Out Imp: <150Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 6.6mA

Con via: XLR-3 (M)
Pad: -6, -12, -18 dB
Filt Freq: 40, 150, 300 Hz
Slope: 12, 6, 6 dB/Oct
SA: Leather bag, windscreen, rubber mount
OA: Shockmount, stereo mount, pop shield



MTP 340 CM \$149

Polar: Cardioid
Dim: 49 x 175 (mm)
Wght: 330g
Freq: 90Hz - 20kHz (±3dB)
Out Sens: 3.1mV/Pa
Max SPL: 141dB
Self Noise: 25dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 5.3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Leather bag, microphone clip
OA: -



Microtech Gefell

Microtech Gefell GmbH are a German manufacturer of studio and measurement microphones that are exclusively hand made. Besides microphones, Microtech Gefell GmbH offer calibration and service for the whole product range. They continue the tradition of Georg Neumann who founded the company 1928.

HQ: www.microtechgefell.de

M300 \$890

Polar: Cardioid
Dim: 21 x 130 (mm)
Wght: 126g
Freq: 40Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 147dB
Self Noise: 16dBA
Out Imp: 100Ω
Rec Load: ≥1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden case
OA: Windscreen, microphone holder, elastic suspension

SOS Review (April 2006)
www.soundonsound.com/sos/apr06/articles/mgm300.htm



MicW

MicW are a professional recording microphone brand, known for producing clean-sounding microphones. With great options for instrument and voice recording, MicW strive to develop products that faithfully reproduce sound and transmit the voice cleanly.

USA: www.fdwcorp.com
HQ: www.mic-w.com

E216 \$215

Polar: Omnidirectional
Dim: 22 x 155 (mm)
Wght: 155g
Freq: 20Hz - 20kHz (±2dB)
Out Sens: 25mV/Pa
Max SPL: 135dB
Self Noise: <21dBA
Out Imp: <75Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, shockmount
OA: Shockmount with fixed pop screen, acoustic equaliser, grid



N241 \$948

Polar: Omnidirectional
Dim: 22 x 155 (mm)
Wght: 115g
Freq: 20Hz - 40kHz (±2dB)
Out Sens: 8mV/Pa
Max SPL: 146dB
Self Noise: <30dBA
Out Imp: <75Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, shockmount
OA: Shockmount with fixed pop screen, acoustic equaliser, grid



N201 \$828

Polar: Omnidirectional
Dim: 22 x 155 (mm)
Wght: 120g
Freq: 20Hz - 20kHz (±2dB)
Out Sens: 40mV/Pa
Max SPL: 130dB
Self Noise: <18dBA
Out Imp: <75Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, shockmount
OA: Shockmount with fixed pop screen, acoustic equaliser, grid



»

Miktek

Miktek produce precision microphones, which are handmade in Nashville, USA. The company are inspired by iconic mics of the past, and develop capsules and unique circuits to capture sound. Using the very latest in audio technology, Miktek's designs are approved by some of the world's most acclaimed sound engineers.

HQ: www.miktekaudio.com

PM5 \$599

Polar: Supercardioid
Dim: 57 x 177 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 142dB
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: 200Ω
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

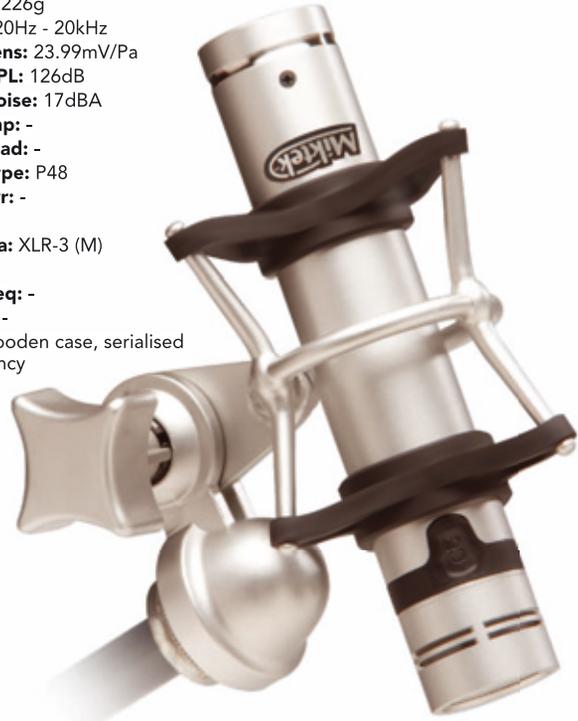
Pad: -
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Protective case, serialised frequency response graph, microphone clip, rugged aluminium carry case
OA: -



C5 \$599

Polar: Cardioid
Dim: 26 x 115 (mm)
Wght: 226g
Freq: 20Hz - 20kHz
Out Sens: 23.99mV/Pa
Max SPL: 126dB
Self Noise: 17dBA
Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, serialised frequency response graph, microphone clip, aluminium carry case
OA: -

response graph, microphone clip, shockmount, aluminium carry case
OA: Also available as a stereo matched pair



Mojave Audio

Founded by David Royer (known for his ribbon mic designs for Royer Labs) in 1985, Mojave Audio was a one-man, custom pro audio gear shop. Since the mid-1990s, Mojave mics have been used by high-end engineers on a number of well-known recordings. The company was relaunched in 2005, with David's non-ribbon mic designs.

HQ: www.mojaveaudio.com

MA-101fet \$595

Polar: Omnidirectional, cardioid
Dim: 28 x 171 (mm)
Wght: 230g
Freq: 20Hz - 20kHz (±3dB)
Out Sens: 11.22mV/Pa
Max SPL: 125dB, 140dB (with pad)
Self Noise: 14dB
Out Imp: 500Ω
Rec Load: 2.5kΩ
Pwr Type: P48
Alt Pwr: -

SC: 0.68mA
Con via: XLR-3
Pad: -15dB
Filt Freq: -
Slope: -
SA: Flight case, microphone clip
OA: -



Nevaton

Formed in Russia in 1991, Nevaton have their roots in the Leningrad optical and mechanical association (LOMO) and the scientific and industrial association EKRAM. Founded as a microphone manufacturer and a research laboratory, Nevaton's base contains an acoustic lab, including a large anechoic chamber, as well as a factory in which each microphone is hand assembled.

HQ: www.nevatonmics.com

MC 49-C \$999

Polar: Cardioid
Dim: 23 x 158 (mm)
Wght: 165g
Freq: 20Hz - 20kHz (±3dB)
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Shockmount, microphone clip, hardwood box
OA: -



MC 49-O \$999

Polar: Omnidirectional
Dim: 23 x 158 (mm)
Wght: 165g
Freq: -
Out Sens: 15mV/Pa
Max SPL: 140dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Shockmount, microphone clip, hardwood box
OA: -



MC 401 \$1099

Polar: Short rifle
Dim: 20 x 250 (mm)
Wght: 120g
Freq: 40Hz - 20kHz (±3dB)
Out Sens: 25mV/Pa
Max SPL: 134dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P12-48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, microphone clip, hardwood box
OA: -



Neumann

Georg Neumann GmbH, based in Berlin, Germany, are renowned as one of the world's leading manufacturers of microphones. Some of their decades-old designs, like the U87, are still considered among the best available today.

HQ: www.neumann.com

KMS 105 \$699

Polar: Supercardioid
Dim: 48 x 180 (mm)
Wght: 300g
Freq: 20Hz - 20kHz
Out Sens: 4.5mV/Pa
Max SPL: 150dB
Self Noise: 18dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: Battery supply
SC: 3.5mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Stand clamp, padded nylon bag
OA: -



KM 184 \$849

Polar: Cardioid
Dim: 22 x 107 (mm)
Wght: 80g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 138dB
Self Noise: 13dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, stand mount
OA: Elastic suspension, auditorium hanger, pop screen, windscreen



Oktava

Oktava are the oldest major Russian manufacturer of professional audio equipment, famous for their ribbon models as well as small- and large-diaphragm condenser microphones.

HQ: www.oktava.eu



»

MK-103
\$363

Polar: Cardioid
Dim: 30 x 130 (mm)
Wght: 95g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 140dB
Self Noise: 18dBA
Out Imp: 300Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 8mA
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: Microphone holder, wooden box
OA: Swivel joint, low-cut filter, figure-of-8 adaptor, different shockmounts, windscreen, wind jammer



MK-012
\$305

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 23 x 128 (mm)
Wght: 200g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 130dB
Self Noise: 18dBA
Out Imp: 300Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 8mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: Microphone holder, wooden box
OA: Swivel joint, low-cut filter, figure-of-8 adaptor, different shockmounts, windscreen, wind jammer



SOS Review (July 1994)
www.soundonsound.com/sos/1994_articles/jul94/oktavamk012.html

Pearl

Pearl are a Swedish manufacturer of high-end microphones. Their large-diaphragm condensers are based around unusual rectangular capsules, and they also make a stereo mic, the ELM-A. All Pearl microphones are hand made in Sweden.

USA: www.independentaudio.com
HQ: www.pearl.se

MSH 10 MS (Stereo)
12,800 SEK

Polar: Hypercardioid, figure-of-8, short rifle
Dim: 28 x 187 (mm)
Wght: 175g
Freq: 40Hz - 20kHz (±6dB)
Out Sens: 20mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 500Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, shockmount
OA: Wind shield



Prodipe

French company Prodipe are known for making monitors with ribbon tweeters, as well as manufacturing a wide range of low-cost microphones for stage and studio use.

US: www.musicfactorydirect.com
HQ: www.prodipe.com

Duo A1
\$129 (pair)

Polar: Cardioid
Dim: -
Wght: 120g
Freq: 30Hz - 18kHz
Out Sens: 12.59mV/Pa
Max SPL: 134dB
Self Noise: -
Out Imp: 100Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: 100Hz
Slope: 12dB/Oct
SA: Clamps, pop shields
OA: -



MC1 Condenser
\$109

Polar: Cardioid
Dim: -
Wght: -
Freq: 30Hz - 20kHz
Out Sens: -37dB (±3dB)
Max SPL: >125dB
Self Noise: <23dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Mic clip
OA: -



Peavey

Peavey are one of the largest independently owned suppliers of musical instruments and professional sound equipment in the world. Established by Hartley Peavey in 1965, Peavey hold 130 patents in musical instrument designs and audio technology. Their products can be found in government buildings, theme parks, airports, stadiums and more.

HQ: www.peavey.com

Studio Pro CM1 \$129

Polar: Cardioid
Dim: 49 x 181 (mm)
Wght: 318g
Freq: 50Hz - 16kHz
Out Sens: 7.08mV/Pa
Max SPL: 130dB
Self Noise: 24dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Compact carry case
OA: Hardshell case, PV series low Z cable (7.6m)



PVM 480 \$199

Polar: Supercardioid
Dim: 22 x 137 (mm)
Wght: 60g
Freq: 40Hz - 20kHz
Out Sens: 3.98mV/Pa
Max SPL: 128dB
Self Noise: -
Out Imp: 500Ω
Rec Load: -
Pwr Type: P9-52
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Swivel adaptor, external windscreen, 25-foot balanced cable
OA: Hardshell case, PV series low Z cable (7.6m)

SOS Review (August 1995)
www.soundonsound.com/sos/1995_articles/aug95/peaveypvm480.html



Peluso

Peluso produce top-quality studio microphones inspired by classic vintage designs. Hand assembled from quality modern and vintage components, Peluso mics are extensively tested by computer frequency response and human listening tests, ensuring the lowest noise standards.

HQ: www.pelusomicrophonelab.com

CEMC-6 Stereo \$679 (pair)

Polar: Omnidirectional, cardioid, wide cardioid, hypercardioid
Dim: 22 x 164 (mm)
Wght: 134g
Freq: 19Hz - 25kHz (±3dB)
Out Sens: 10mV/Pa
Max SPL: 156dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: 12dB/Oct
SA: Shockmounts, hard mounts, windscreens, flight case
OA: Matched capsules: omnidirectional, wide cardioid, hypercardioid



CEMC-6 \$292

Polar: Omnidirectional, cardioid, supercardioid, hypercardioid
Dim: 22 x 164 (mm)
Wght: 134g
Freq: 19Hz - 25kHz (±3dB)
Out Sens: 10mV/Pa
Max SPL: 156dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 4mA
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: 12dB/Oct
SA: Wooden box, hard mount
OA: Shockmount, stereo matched pair kits, capsules: omnidirectional, supercardioid, hypercardioid



RØDE

Rode are based in Sydney, Australia, where all their microphones are designed, and where the majority of their manufacturing takes place. They make all kinds of mics, from valve and solid-state condensers to lapel and video microphones.

HQ: www.rodemic.com

M3 \$149

Polar: Cardioid
Dim: 33 x 225 (mm)
Wght: 390g
Freq: 40Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 142dB
Self Noise: 21dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: 9V battery
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 80Hz
Slope: -
SA: Stand mount, wind shield, zip case, 10 year warranty
OA: -

SOS Review (November 2007)
www.soundonsound.com/sos/nov07/articles/rodem3.htm



M2 \$179

Polar: Supercardioid
Dim: 47 x 187 (mm)
Wght: 308g
Freq: 35Hz - 20kHz
Out Sens: 6.3mV/Pa
Max SPL: 141dB
Self Noise: 23dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P24/48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Stand mount, zip case, 10 year warranty
OA: -



NT3 \$269

Polar: Cardioid
Dim: 32 x 206 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 11.22mV/Pa
Max SPL: 140dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48/24/12
Alt Pwr: 9V battery
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Zip case, microphone clip, windshield, 10 year warranty
OA: Shockmounts, RØDE Blimp, desk stand

SOS Review (November 2000)
www.soundonsound.com/sos/nov00/articles/rodent3.htm



NT5 \$219 (\$426 for matched pair)

Polar: Cardioid
Dim: 20 x 118 (mm)
Wght: 101g
Freq: 20Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 143dB
Self Noise: 16dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P24/48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Stand mount, wind shield, zip case, 10 year warranty
OA: Shockmounts, omnidirectional capsule

SOS Review (August 2002)
www.soundonsound.com/sos/aug02/articles/rodent4nt5.asp



NT6 \$429

Polar: Cardioid
Dim: 20 x 45 (mm)
Wght: 42g
Freq: 40Hz - 20kHz
Out Sens: 14.1mV/Pa
Max SPL: 135dB
Self Noise: 19dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P24/48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 80Hz
Slope: -
SA: Kevlar reinforced cable (3m), swivel mount, stand mount, 10 year warranty
OA: Omnidirectional capsule, wind shield, gooseneck mount



NT4 (Stereo) \$529

Polar: X/Y stereo cardioid
Dim: 41 x 231 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 12.59mV/Pa
Max SPL: 143dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: 9V battery
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Carry case, windshield, stereo XLR cable, stereo minijack 3.5mm cable, microphone clip, 10 year warranty
OA: Shockmounts, RØDE Blimp, desk stand, zip case, Dead Kitten furry, extension cable

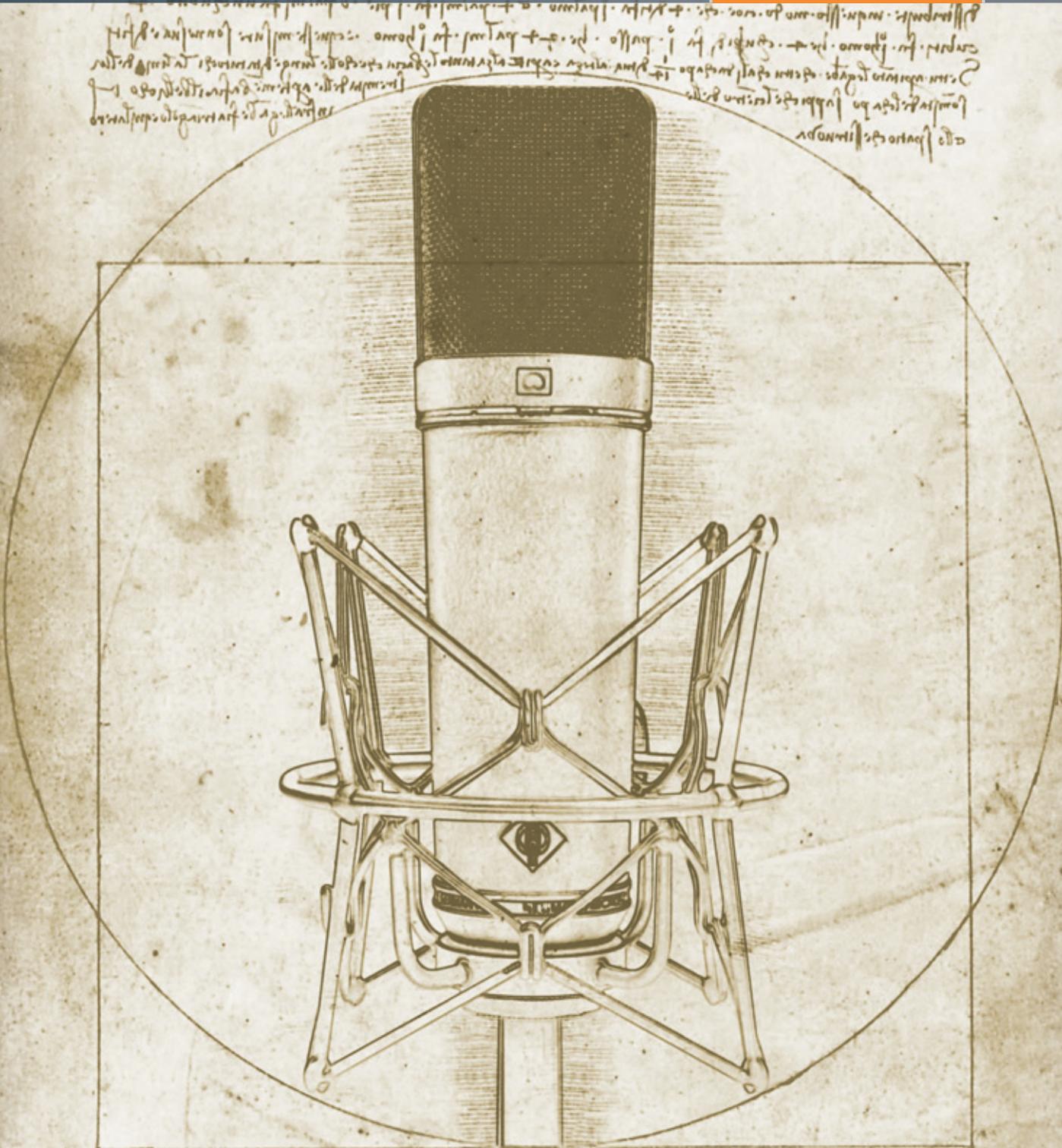
SOS Review (August 2002)
<http://www.soundonsound.com/sos/aug02/articles/rodent4nt5.asp>





▶▶ NEUMANN.BERLIN

Studio Microphone



Know Your Classics.

U 87 – The Reference

▶▶ The U 87. 45 years old and as desirable as ever.

Learn more: www.NeumannUSA.com

NTG3
\$699

Polar: Supercardioid
Dim: 19 x 255 (mm)
Wght: 163g
Freq: 40Hz - 20kHz
Out Sens: 31.6mV/Pa
Max SPL: 130dB
Self Noise: 13dBA
Out Imp: 25Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Aluminium storage cylinder, stand mount, wind shield, zip case, 10 year warranty
OA: Shockmounts, deluxe wind shield, DeadCat, pistol grips, boom poles



NTG1
\$249

Polar: Supercardioid
Dim: 22 x 217 (mm)
Wght: 105g
Freq: 20Hz - 20kHz
Out Sens: 15.8mV/Pa
Max SPL: 139dB
Self Noise: 18dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P24/48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 80Hz
Slope: -
SA: Stand mount, wind shield, zip case, 10 year warranty
OA: Shockmounts, deluxe wind shield, DeadCat, pistol grips, boom poles



S1
\$329

Polar: Supercardioid
Dim: 52 x 183 (mm)
Wght: 308g
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 151dB
Self Noise: 18dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand mount, zip case, 10 year warranty
OA: Also available in black



NTG2
\$269

Polar: Supercardioid
Dim: 22 x 278 (mm)
Wght: 161g
Freq: 20Hz - 20kHz
Out Sens: 15.8mV/Pa
Max SPL: 131dB
Self Noise: 18dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P24/48
Alt Pwr: AA battery
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: 80Hz
Slope: -
SA: Stand mount, wind shield, zip case, 10 year warranty
OA: Shockmounts, deluxe wind shield, DeadCat, pistol grips, boom poles



NT55
\$369 (\$829 for matched pair)

Polar: Omnidirectional, cardioid
Dim: 20 x 145 (mm)
Wght: 110g
Freq: 20Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 136dB
Self Noise: 15dBA
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: -
SA: Omnidirectional capsule, stand mount, 10 year warranty
OA: Shockmounts, wind shield, zip case

SOS Review (September 2007) www.soundonsound.com/sos/sep07/articles/rodent55.htm



NTG8
\$999

Polar: Supercardioid
Dim: 559 x 19 x 19 (mm)
Wght: 345g
Freq: 40Hz - 20kHz
Out Sens: 100mV/Pa
Max SPL: 124dB
Self Noise: 8dBA
Out Imp: 25Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 2.5mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: shockmount, windshield, aluminium cylinder, 10 year warranty
OA: RØDE Blimp



Schoeps

Founded in 1948, Schoeps specialise in making small-diaphragm condensers. They also manufacture the Colette range of modular mics, as well as shotgun models and multi-microphone stereo and surround recording kits.

USA: www.reddingaudio.com
HQ: www.schoeps.de

CCM 4 LG \$2018

Polar: Cardioid
Dim: 20 x 46 (mm)
Wght: 43g
Freq: 40Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 132dB
Self Noise: 15dBA
Out Imp: 90Ω
Rec Load: >600Ω
Pwr Type: P12/48
Alt Pwr: -
SC: 8 or 4 mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, miniature stand mount with swivel, Lemo/XLR adaptor cable
OA: Extension tubes, table stand, basket-type windscreens, double M/S, ORTF, ORTF surround



CMC 68 Set \$2138

Polar: Figure-of-8
Dim: 20 x 147 (mm)
Wght: 78g
Freq: 40Hz - 16kHz
Out Sens: 10mV/Pa
Max SPL: 134dB
Self Noise: 18dBA
Out Imp: 25, 35 Ω
Rec Load: >600Ω
Pwr Type: P12/48
Alt Pwr: -
SC: 8, 4 mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Polished wood case, stand clamp with swivel
OA: Range of accessories including extension tubes, table stands, windscreens, mounting brackets, pop filters



CMC 64 Set \$1698

Polar: Cardioid
Dim: 20 x 132 (mm)
Wght: 77g
Freq: 40Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 132dB
Self Noise: 15dBA
Out Imp: 35Ω @ P48, 25Ω @ P12
Rec Load: 600Ω
Pwr Type: P12/48
Alt Pwr: -
SC: 4mA @ P48, 8mA @ P12
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand clamp with swivel, polished wood case
OA: Range of accessories including 20 interchangeable capsules, extension tubes, table stands, windscreens, mounting brackets, pop filters



CMC 641 Set \$1918

Polar: Supercardioid
Dim: 20 x 132 (mm)
Wght: 77g
Freq: 40Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 132dB
Self Noise: 15dBA
Out Imp: 35Ω @ P48, 25Ω @ P12
Rec Load: 600Ω
Pwr Type: P12/48
Alt Pwr: -
SC: 4mA @ P48, 8mA @ P12
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Polished wood case, stand clamp with swivel
OA: Range of accessories including extension tubes, table stands, windscreens, mounting brackets, pop filters



CMXY 4V Ug (Stereo) \$5495

Polar: Cardioid
Dim: 43 x 119 (mm)
Wght: 190g
Freq: 40Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 132dB
Self Noise: 14dBA
Out Imp: 90Ω
Rec Load: >600Ω
Pwr Type: P12/48
Alt Pwr: -
SC: 2 x 8, 2 x 4 mA

Con via: XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Polished wood case, AK SU/2U adaptor cable
OA: Windscreen, stand clamp with swivel



SuperCMIT
\$4449

Polar: Short rifle
Dim: 21 x 280 (mm)
Wght: 112g
Freq: 40Hz - 20kHz
Out Sens: 28.18mV/Pa
Max SPL: 125dB
Self Noise: 14, 16 dBA
Out Imp: 110Ω
Rec Load: 110Ω
Pwr Type: DPP, 10V
Alt Pwr: -
SC: 170mA
Con via: XLR-3 (M)



Pad: -
Filt Freq: 80Hz, 10kHz
Slope: 18dB/Oct +5dB
SA: PSD 2U or Mini-DA42 powering box, foam windscreen
OA: Shockmount with pistol grip, basket-type windscreen

CMIT 5U
\$2199

Polar: Short rifle
Dim: 21 x 251 (mm)
Wght: 89g
Freq: 40Hz - 20kHz
Out Sens: 17mV/Pa
Max SPL: 132dB
Self Noise: 14dBA
Out Imp: 50Ω
Rec Load: >600Ω
Pwr Type: P48
Alt Pwr: -
SC: 4.4mA
Con via: XLR-3 (M)



Pad: -
Filt Freq: -
Slope: -
SA: Polished wood case, foam windscreen, stand clamp with swivel
OA: Basket-type windscreens

sE Electronics

sE Electronics are one of the most prolific modern mic manufacturers. Since being founded in 2000, they've released an enormous range of models covering almost every type of microphone and at pretty much every price level.

USA: www.fingerprntaudio.com
HQ: www.seelectronics.com

H1 Live
\$249

Polar: Cardioid
Dim: 48 x 183 (mm)
Wght: 345g
Freq: 20Hz - 20kHz
Out Sens: 2mV/Pa
Max SPL: 134dB
Self Noise: 18dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip
OA: -



sE4
\$349

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 28 x 178 (mm)
Wght: 280g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 137dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75Hz
Slope: 6dB/Oct
SA: Shockmount, flight case
OA: Capsules: omnidirectional, hypercardioid, mics also available as a factory matched pair



SOS Review (March 2009)
www.soundonsound.com/sos/mar09/articles/seelectronicsse4.htm

sE1a
\$199

Polar: Cardioid
Dim: 25 x 163 (mm)
Wght: 190g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 130dB
Self Noise: 17dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip
OA: Shockmount, stereo bar for matched pair



sE Rupert Neve

sE Electronics and Rupert Neve announced their first collaborative mic, the RNR ribbon, in 2008. In 2011, they announced the RN17, which is the world's first pencil microphone to include a large transformer.

USA: www.fingerprinaudio.com
 HQ: www.seelectronics.com

RN17 \$1199

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 44 x 200 (mm)
Wght: 248g
Freq: 20Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 150dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -



SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden case, flight case
OA: Capsules: omni, hypercardioid, fig-8; pop shield

Sennheiser

Longstanding German company Sennheiser make microphones for a wide range of purposes, including conferences, aviation, and music recording and performance. Their high-end MKH condensers employ some innovative capsule technology, and their wireless mic systems include vocal mics, headset mics and lavelier models.

HQ: www.sennheiser.com

e965 \$699

Polar: Cardioid, supercardioid
Dim: 48 x 199 (mm)
Wght: 396g
Freq: 40Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 142dB
Self Noise: 21dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.5mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Pouch, microphone clip
OA: -



MICROTECH GEFELL 

microphones & acoustic systems - founded 1928 by Georg Neumann

Keep it simple



KEM 975

Linearray microphone system Satellite



Livesound & Installation



Broadcast & Recording

www.microtechgefell.de

Shure

American company Shure make some of the most widely used dynamic mics, including the SM57 and SM58. They also manufacture high-end studio condensers, as well as wireless mic kits.

HQ: www.shure.com

KSM9HS

\$699

Polar: Hypercardioid, subcardioid
Dim: 49mm x 191mm
Wght: 300g
Freq: 50Hz - 20kHz
Out Sens: Hypercardioid 3mV/Pa, subcardioid 2.2mV/Pa
Max SPL: 150.8dB / 153dB
Self Noise: 20.7dB / 22.7dB
Out Imp: 145Ω
Rec Load: -

Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Aluminum carry case, stand adaptor
OA: -



SM81

\$349

Polar: Cardioid
Dim: 24 x 212 (mm)
Wght: 230g
Freq: 20Hz - 20kHz
Out Sens: 5.6mV/Pa
Max SPL: 136dB
Self Noise: 16dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 1.2mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Microphone clip, swivel adaptor, 10dB attenuator lock, carry case, windscreen
OA: Pop filter grille, heavy-duty windscreen, stereo microphone adaptor Shock Stopper, isolation mount



Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

USA: www.proaudiodesign.com

HQ: www.sontronics.com

STC-1

\$159

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 24 x 162 (mm)
Wght: 214g
Freq: 25Hz - 20kHz (±1dB)
Out Sens: 12mV/Pa
Max SPL: 137dB
Self Noise: 16dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: -
SA: Angled microphone clip, foam wind shield, wooden case, lifetime warranty
OA: Capsules: omnidirectional, hypercardioid, pop shield, pro-quality audio mic cables with Neutrik XX connectors



STC-6

\$249

Polar: Cardioid, supercardioid
Dim: 47 x 190 (mm)
Wght: 436g
Freq: 30Hz - 20kHz (±2dB)
Out Sens: 8mV/Pa
Max SPL: 140dB
Self Noise: 14dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: -
SA: Microphone clip, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality audio mic cables with Neutrik XX connectors, professional microphone stand



STC-1S

\$449 (Pair)

Polar: Omnidirectional, cardioid, hypercardioid
Dim: 24 x 162 (mm)
Wght: 424g
Freq: 25Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 137dB
Self Noise: 16dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: -
SA: 2 x microphone clip, 2 x foam windshield, stereo mounting bar, wooden case, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors, two levels of -10dB pad plus phase inverse



Sound First

Founded by industry veteran Ray A Rayburn, Sound First make a range of small-diaphragm omnidirectional microphones. They are made primarily for test and measurement purposes, but are equally at home in the studio when neutrality and precision are required.

HQ: www.soundfirst.com

SF101a \$890

Polar: Omnidirectional
Dim: -
Wght: -
Freq: 10 Hz to 22 kHz
Out Sens: 15.8mV/Pa
Max SPL: 138dB
Self Noise: 13dBA
Out Imp: -
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stand adaptor, waterproof case
OA: MATT-20 attenuator for 20dB higher maximum SPL



Studio Projects

Studio Projects Microphones — a division of PMI Audio Group — is a California-based design house, headed by Brent Casey, which specialises in microphones and electronics for the professional audio market.

USA: www.pmiaudio.com
 HQ: www.studioprojects.com

SP C4

\$349 (matched pair)

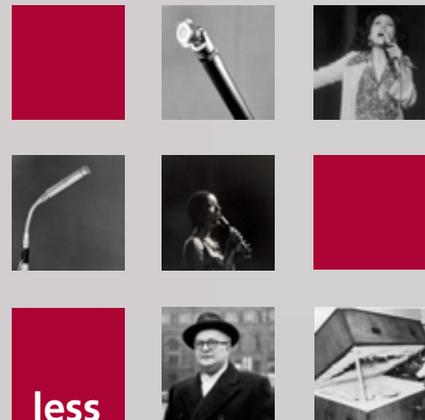
Polar: Omnidirectional, cardioid, hypercardioid
Dim: 20 x 129 (mm)
Wght: 92g
Freq: 20Hz - 20kHz
Out Sens: 12, 12, 13 mV/Pa
Max SPL: 158dB
Self Noise: 18, 18, 17 dBA
Out Imp: 50Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.1mA
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 75, 150 Hz
Slope: 6dB/Oct
SA: Interchangeable capsules, foam windscreens with external acoustic fabric overlay, stereo X-Y bar, microphone stand clips
OA: Metal pop screen, 20-foot Litz wire microphone cable



SCHOEPS 
 Mikrofone



Since 1948



Time less



history & the latest news
www.facebook.com/SchoepsMics

SCHOEPS GmbH
 Spitalstr. 20
 D-76227 Karlsruhe

www.schoeps.de
 mailbox@schoeps.de
 Tel. +49 721 943 200

RIBBON MICROPHONES

Ribbon mics are a subset of dynamic microphones and today come in both active and passive variants. Passive models tend to have a very low electrical output and so place high demands on the preamp to which they are connected, unless the sound source is relatively loud. Because of their construction, ribbon mics are almost always 'figure-of-eight' pattern types, which also means they exhibit a strong proximity effect. This, combined with their smooth and often restricted high end, means some low-cut EQ may be necessary when working close to the sound source. While the lack of high-end reach might be considered a limitation, ribbon mics have the ability to smooth out the aggressive highs encountered when miking bowed strings, guitar amplifiers and the cymbals above a drum kit. They also suit some vocal styles. A few of the more recent models have a more extended high-frequency response but still exhibit the characteristic ribbon smoothness, which contrasts with the often rather more assertive high end of a capacitor microphone.



AEA

AEA — Audio Engineering Associates — manufacture a wide range of studio ribbon microphones based on classic designs from RCA. They also repair vintage RCA models, as well as building preamps designed specifically for ribbon mics.

HQ: www.ribbonmics.com

A440 \$5220

Polar: Figure-of-8
Dim: 117 x 312 (mm)
Wght: 2.4kg
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 136dB
Self Noise: 9dBA
Out Imp: 92Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 7mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -

SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand
 SOS Review (June 2009)
www.soundonsound.com/sos/jun09/articles/aeaa440.htm



A840 \$1553

Polar: Figure-of-8
Dim: 99 x 295 (mm)
Wght: 816g
Freq: 20Hz - 20kHz
Out Sens: 6.3mV/Pa
Max SPL: 141dB
Self Noise: 17.5dBA
Out Imp: 92Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 7mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Non-reflective exterior, stereo-matched pair, custom graphics laser engraved on the trim band
 SOS Review (Feb 2012)
www.soundonsound.com/sos/feb12/articles/aea-a840.htm



KU4 \$4356

Polar: Supercardioid
Dim: 117 x 320 (mm)
Wght: 2.15kg
Freq: 30Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 300Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair

SOS Review (January 2012)
www.soundonsound.com/sos/jan12/articles/aea-ku4.htm



R44C \$3780

Polar: Figure-of-8
Dim: 117 x 312 (mm)
Wght: 2.39kg
Freq: 20Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand

SOS Review (June 2002)
www.soundonsound.com/sos/jun02/articles/aeairibbon.asp



R84 \$1035

Polar: Figure-of-8
Dim: 117 x 312 (mm)
Wght: 2.4kg
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand

SOS Review (Feb 2004)
www.soundonsound.com/sos/feb04/articles/aeair84.htm



R44CX \$4230

Polar: Figure-of-8
Dim: 117 x 312 (mm)
Wght: 2.4kg
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -

SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand



R44CE \$2520

Polar: Figure-of-8
Dim: 117 x 312 (mm)
Wght: 2.2kg
Freq: 20Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -

Filt Freq: -
Slope: -
SA: Custom storage/shipping case, grey zippered bag, Accusound silver studio pro cable (3m)
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand



R88 Mk2 (Stereo)
\$1995

Polar: Figure-of-8
Dim: 95 x 381 (mm)
Wght: 1.09kg
Freq: 20Hz - 20kHz
Out Sens: 2.5mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: - XLR-5 (M)
Pad: -

Filt Freq: -
Slope: -
SA: XLR-5 (F) to 2 x XLR-3 (M) breakout cable, custom storage/shipping case, swivel adaptor, microphone bag
OA: Hand-tuning to stereo match a pair, custom body graphics or colours, custom microphone flag, round low-profile desk stand



R92
\$765

Polar: Figure-of-8
Dim: 73 x 191 (mm)
Wght: 454g
Freq: 20Hz - 18kHz
Out Sens: 1.8mV/Pa
Max SPL: 165dB
Self Noise: -
Out Imp: 270Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Custom storage/shipping case, swivel adaptor, captive cable (2m)
OA: Any length cable (enquire for details), laser engraving with art or logo



Audio-Technica

For 50 years Audio-Technica have aimed to produce audio excellence and innovations in transducer technology. Renowned for the design and manufacture of high-quality audio products, the company offer a complete range of wired and wireless microphones, headphones and accessories for broadcast, live-sound, recording and installed-sound functions.

HQ: www.audio-technica.com

AT4080
\$999

Polar: Figure-of-8
Dim: 53 x 118 (mm)
Wght: 474g
Freq: 20Hz - 18kHz
Out Sens: 11.2mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, microphone dust cover, protective carry case
OA: -

SOS Review (August 2010)
www.soundonsound.com/sos/aug10/articles/at-4080-4081.htm



AT4081
\$699

Polar: Figure-of-8
Dim: 21 x 155 (mm)
Wght: 152g
Freq: 30Hz - 18kHz
Out Sens: 7.9mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 100Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 3mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Isolation clamp for 5/8-inch threaded stands, 5/8-inch to 3/8-inch threaded adaptor, windscreens, protective carry case
OA: -

SOS Review (August 2010)
www.soundonsound.com/sos/aug10/articles/at-4080-4081.htm



Avantone

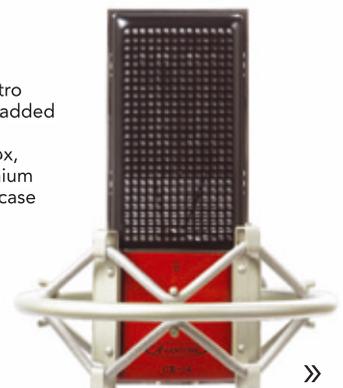
Avantone are best known for their Mixcube single-driver loudspeakers, but they also make a range of high-quality solid-state and valve condenser microphones, as well as dynamic drum mics and ribbon mics.

HQ: www.avantonepro.com

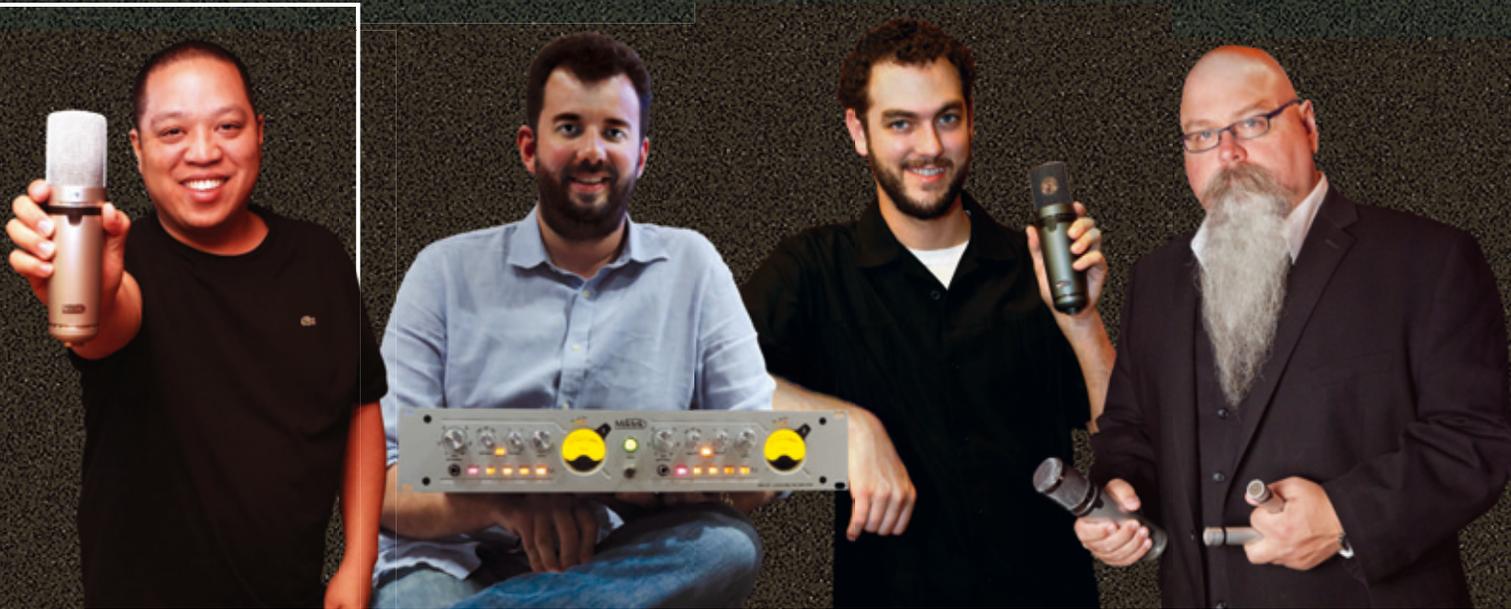
CR-14
\$259

Polar: Figure-of-8
Dim: 37 x 175 (mm)
Wght: 496g
Freq: 30Hz - 15kHz
Out Sens: 2.5mV/Pa
Max SPL: 148dB
Self Noise: 70dBA
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Custom retro shockmount, padded wooden case, microphone box, padded aluminium storage/travel case
OA: -



Any Questions?



“This Miktek C7 is my new favorite mic. At the studio, we fight over who gets to use it!”

Supa Dups

Rihanna, John Legend, Bruno Mars, Drake, Eminem

“I’ve been tracking with my CV4 non stop. The addition of the MPA-201 has created a killer chain.”

Graham Marsh

Cee Lo Green, Bruno Mars, T.I., Leona Lewis, Ludacris, Gnarlz Barkley.

“The CV3 sounds warm and clean. The texture from the tube and transformer makes it sound great. A lot of mics fall flat when compared to this one.”

Charles Wakeman

Calle 13, Nas and Damian Marley, DJ Khaled, Inner Circle

“The CV4 has been a go to for months now on vocals I’ve been using my C5’s for my least favorite job ever, hi hats. Love them on acoustics also...”

Vance Powell

Jack White, The Dead Weather, Red Fang, Buddy Guy, The Raconteurs, Wanda Jackson

There’s a lot of talk about microphones these days. Old ones, new ones, vintage, modern.... samples, sound clips, shoot outs.... it’s all good. But why are top engineers everywhere, who could use any microphone, placing Miktek mics in front of their most critical sources? Visit your exclusive Miktek dealer today and listen for yourself. (It takes about three seconds.)

Miktek

Miktek, LLC • Nashville, TN USA • 615 250 2434 • www.miktekaudio.com

©2013 Miktek. All Rights Reserved

Beyerdynamic

Beyerdynamic have been an industry leader in the design and manufacture of premium-grade microphones, headphones and wireless microphone systems since 1924. Their microphone range covers pretty much every type, including dynamic, capacitor and ribbon models.

USA: www.americanmusicsounds.com
 HQ: www.beyerdynamic.com

TG V90r \$499

Polar: Cardioid
Dim: 57 x 184 (mm)
Wght: 471g
Freq: 50Hz - 14kHz
Out Sens: 0.9mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 330Ω
Rec Load: >1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Clamp
OA: -



BeesNeez

Australian company BeesNeez offer a diverse range of microphones for the recording, broadcast and film industries. They're a small company, yet they manufacture every part of their mics themselves, including the capsules.

HQ: www.beesneezmicrophones.com.au

Judas \$1399

Polar: Figure-of-8
Dim: 38 x 145 (mm)
Wght: 400g
Freq: 18Hz - 17kHz
Out Sens: -
Max SPL: 148dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, waterproof case
OA: -



Lily \$1450

Polar: Figure-of-8
Dim: 64 x 195 (mm)
Wght: 950g
Freq: 18Hz - 17kHz
Out Sens: -
Max SPL: 150dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, waterproof case
OA: -



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics, Blue Microphones offer innovative design and top performance.

HQ: www.bluemicro.com

Woodpecker \$999.99

Polar: Fig-8
Dim: 227 x 45 mm
Wght: 725g
Freq: 20Hz - 20kHz
Out Sens: 26mV/Pa
Max SPL: 136dB
Self Noise: 22.9dBA
Out Imp: 50Ω
Rec Load: >1kΩ
Pwr Type: P48
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)

Filt Freq: -
SA: Includes custom shockmount and cherrywood box
OA: The Pop (brass mesh pop filter), Kiwi or Blueberry (high-definition mic cables)



Cloud Microphones

Cloud are an American manufacturer of both passive and active ribbon microphones, as well as in-line preamps. They were founded by Stephen Sank, whose father, Jon Sank, designed many of RCA's classic microphones.

HQ: www.cloudmicrophones.com

JRS-34 \$1599

Polar: -
Dim: 77 x 216 (mm)
Wght: 400g
Freq: 20Hz - 20kHz
Out Sens: 35mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 6mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, microphone dust cover/ polishing cloth
OA: Universal microphone shockmount

SOS Review (December 2011)
www.soundonsound.com/sos/dec11/articles/cloud-mics.htm



JRS-34-P \$1499

Polar: Figure-of-8
Dim: 77 x 216 (mm)
Wght: 400g
Freq: 20Hz - 20kHz
Out Sens: 2mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: 150Ω
Rec Load: >1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Wooden box, microphone dust cover/ polishing cloth
OA: Universal microphone shockmount, CL-1 microphone activator (phantom-powered active gain stage)
SOS Review (December 2011)
www.soundonsound.com/sos/dec11/articles/cloud-mics.htm



44-A \$1899

Polar: Fig-8
Dim: 76 x 19.6 mm
Wght: 485g
Freq: 20Hz - 20kHz
Out Sens: 39mV/Pa
Max SPL: 136dB
Self Noise: -
Out Imp: 150Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: 24V phantom power
SC: 4mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: 80Hz
Slope: -
SA: Cloud U1 shockmount, wood case, mic cover
OA: -



Coles Electroacoustics

Coles Electroacoustics are a long-established manufacturer of specialised microphones and other acoustic transducers. The most well known are the legendary 4038 studio ribbon microphone, and 4104 and 4115 lip microphones.

USA: www.independentaudio.com
HQ: www.coleselectroacoustics.com



4038 \$1502 MSRP

Polar: Figure-of-8
Dim: 83 x 197 (mm)
Wght: 1080g
Freq: 30Hz - 15kHz
Out Sens: -
Max SPL: 125dB
Self Noise: -
Out Imp: 300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Carrying case with 4069 jack plug and soft cloth protective bag
OA: 4069/XLR mating connector, stand-mounting and connecting cable unit



4040 \$1589 MSRP

Polar: Figure-of-8
Dim: 66 x 145 (mm)
Wght: 1kg
Freq: 20Hz - 20kHz
Out Sens: 0.56mV/Pa
Max SPL: 125dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Plastic case, cloth protective bag, swivel mount and a selection of thread adaptors
OA: Stereo-mounting bracket



Golden Age Project

Golden Age Project are a spin-off of the high-end pro audio distribution activities of Golden Age Music, a Swedish company founded by Bo Medin in 1982. Golden Age Project offer affordable vintage-style products.

USA: www.raddist.com
 HQ: www.goldenagemusic.se

R1 Active Mk3 \$219.99

Polar: Figure-of-8
Dim: 69 x 185 (mm)
Wght: 950g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: 150dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: Cable and soft case
OA: Shockmount



R2 Mk2 \$139.99

Polar: Figure-of-8
Dim: 76 x 166 (mm)
Wght: 350g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: 140dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, shockmount
OA: -



R1 Mk2 \$179.99

Polar: Figure-of-8
Dim: 69 x 185 (mm)
Wght: 950g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: 160dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Cable and soft case
OA: Shockmount



R1 Tube Active \$299.99

Polar: Figure-of-8
Dim: 69 x 185 (mm)
Wght: 950g
Freq: 30Hz - 18kHz
Out Sens: 10mV/Pa
Max SPL: 150dB
Self Noise: -16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Power supply, cables, aluminium case
OA: Shockmount



Don't Gamble on a Review.

Try One. No Strings In Your Studio. With Your Gear



SET UP A FREE GEAR TRIAL: +1.919.682.5552



Charter Oak



LAUTEN
AUDIO

SHURE



JOSEPHSON

Miktek



Mojave
audio



Peluso



VINTECH
AUDIO



api



APOGEE

LYNX
pro-audio



A Designs

LACHAPPELLAUDIO

SoundPure.com

experience the difference

Harper Diabate

Harper Diabate are a specialist manufacturer of valve and ribbon microphones. They are also the record label behind the successful Invisible System album releases.

HQ: www.harperdiabate.com

HDR-1 £250

Polar: Figure-of-8
Dim: 90 x 220 (mm)
Wght: 1500g
Freq: 30Hz - 18kHz
Out Sens: -
Max SPL: 165dB
Self Noise: 2dBA
Out Imp: 600Ω
Rec Load: >1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Metal padded case
OA: -



Karma

Karma Audio are located in Cupertino, CA, and design, manufacture, and distribute a full range of professional recording microphones. Karma Audio's product philosophy is to provide distinctive, affordable and high-quality microphones that enable a new generation of recording engineers to produce music. The company was founded in 2001.

HQ: www.karmamics.com

K6 \$199

Polar: Figure-of-8
Dim: 50 x 165 (mm)
Wght: 455g
Freq: 20Hz to 15kHz
Out Sens: -
Max SPL: 140dB
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, hard case
OA: Inline XLR pad & phase reverse, dual-head pop filter, reflection filter



MXL

The microphone division of Marshall Electronics (not the similarly named guitar-amp makers), MXL started off producing low-cost studio capacitor mics, but have since branched out into ribbon mics and models designed for the stage.

HQ: www.mxlmics.com

R144 \$99.99

Polar: Figure-of-8
Dim: 47 x 171 (mm)
Wght: 400g
Freq: 20Hz - 17kHz
Out Sens: -
Max SPL: 130dB
Self Noise: -
Out Imp: 250Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Heavy-duty shockmount, wooden case
OA: Pop filter, windscreen

SOS Review (May 2011)
www.soundonsound.com/sos/may11/articles/mxl-r144.htm



Oktava

Oktava are the oldest major Russian manufacturer of professional audio equipment, famous for their ribbon models as well as small- and large-diaphragm capacitor microphones.

HQ: www.oktava.eu

ML 5202 \$397

Polar: Figure-of-8
Dim: 62 x 185 (mm)
Wght: 590g
Freq: 20Hz - 20kHz
Out Sens: 1.6mV/Pa
Max SPL: 135dB
Self Noise: -
Out Imp: 300Ω
Rec Load: >1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Mic holder
OA: Shockmount, pop filter



Peluso

Peluso produce top-quality studio microphones inspired by classic vintage designs. Hand assembled from quality modern and vintage components, Peluso mics are extensively tested by computer frequency response and human listening tests, ensuring the lowest noise standards.

HQ: www.pelusomicrophonelab.com

R14 \$645.47

Polar: Figure-of-8
Dim: 36 x 176 (mm)
Wght: 496g
Freq: 30Hz - 16kHz
Out Sens: 3mV/Pa
Max SPL: 149dB
Self Noise: -
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden box
OA: -



SR14 (Stereo) \$1341.94

Polar: Figure-of-8
Dim: 36 x 281
Wght: 750g
Freq: 30Hz - 16kHz
Out Sens: 2.5mV/Pa
Max SPL: 149dB
Self Noise: -
Out Imp: 200Ω
Rec Load: >1000Ω

Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden box, stereo matrix, cable
OA: -



TR14 \$997.69

Polar: Figure-of-8
Dim: 36 x 210 (mm)
Wght: 450g
Freq: 30Hz - 16kHz
Out Sens: -
Max SPL: 149dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: >1kΩ

Pwr Type: PSU
Alt Pwr: -
SC: 500mA
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, cables, power supply, flight case
OA: -



»

Loads of Character!

Cloudlifter CL-Z Mic Activator

Give your mics a whole new spectrum of possibilities!

With up to +25dB of ultra-clean gain, variable impedance loading, and variable high pass filtering, the CL-Z puts the power of character control in your hands. It's as simple as turning the big silver "Z" knob.



*Compatible with any dynamic, tube, battery powered, or ribbon mic. Requires phantom power, does not pass phantom power

Made in the USA!

www.cloudmicrophones.com

Prodipe

French company Prodipe are known for making monitors with ribbon tweeters, as well as manufacturing a wide range of low-cost microphones for stage and studio use.

HQ: www.prodipe.com



Ribbon 1 \$229

Polar: Figure-of-8
Dim: 76 x 190 (mm)
Wght: 464g
Freq: 25Hz - 18KHz
Out Sens: 2.5mV/Pa
Max SPL: 148dB
Self Noise: 18dBA
Out Imp: 350Ω
Rec Load: -
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: Flightcase, shockmount
OA: -



Ribbon Stereo Lanen \$449

Polar: Figure-of-8
Dim: 32 x 237 (mm)
Wght: -
Freq: 30Hz - 18kHz
Out Sens: 3.16mV/Pa
Max SPL: 140dB
Self Noise: 17dBA
Out Imp: 20Ω
Rec Load: 1kΩ
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Flightcase, shockmount
OA: -

SOS Review (April 2013)
www.soundonsound.com/sos/apr13/articles/prodipe-rsl.htm



Royer Labs

Based in Burbank, California, Royer Labs were founded by David Royer and Rick Perotta. David Royer combines his extensive knowledge of classic mic designs with modern materials and production techniques to produce a wide range of active and passive ribbon microphones.

USA: www.royerlabs.com

R-101 \$895 MSRP

Polar: Figure-of-8
Dim: 200 x 36 (mm)
Wght: 483g
Freq: 30Hz - 15kHz
Out Sens: 3.9mV/Pa
Max SPL: 135dB
Self Noise: -
Out Imp: 300Ω
Rec Load: 1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con Via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, carrying case, mic sock
OA: -



R-121 \$1395 MSRP

Polar: Figure-of-8
Dim: 158 x 25 (mm)
Wght: 244g
Freq: 30Hz - 15kHz
Out Sens: 3.9mV/Pa
Max SPL: 135dB
Self Noise: 14dBA
Out Imp: 300Ω
Rec Load: 1.5kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective wood case, mic sock
OA: Shockmount, RSM-1, sling shock



R-122 \$1895 MSRP

Polar: Figure-of-8
Dim: 206 x 25 (mm)
Wght: 309g
Freq: 30Hz - 15kHz
Out Sens: 14mV/Pa
Max SPL: 135dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Protective wood case, mic sock
OA: Shockmount, RSM-1, sling shock



Specification Key — **Polar:** Polar Pattern **Dim:** Dimensions (width & length) **Wght:** Weight **Freq:** Frequency Response **Out Sens:** Output Sensitivity **Out Imp:** Output Impedance **RL:** Recommended Load **Pwr Type:** Powering Type **Alt Pwr:** Powering Alternative **SC:** Supply Current **Con via:** Connection via **Filt Freq:** Filter Frequency **SA:** Supplied accessories **OA:** Optional accessories

R-122V

\$3295 MSRP

Polar: Figure-of-8
Dim: 206 x 25 (mm)
Wght: 300g
Freq: 30Hz - 15kHz
Out Sens: 15mV/Pa
Max SPL: 135dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: Multi-conductor

cable
Pad: -
Filt Freq: -
Slope: -
SA: Protective wood case, shock mount, power supply, locking 25-foot microphone cable assembly, carrying case
OA: -



SF-2

\$2495 MSRP

Polar: Figure-of-8
Dim: 203 x 39 (mm)
Wght: 465g
Freq: 30Hz - 15kHz
Out Sens: 12.5mV/Pa
Max SPL: 130dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA.
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, protective case, mic sock
OA: -

Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, mic sock
OA: Shockmount, RSM-1, sling shock



»

SF-12

\$2895 MSRP

Polar: Figure-of-8
Dim: 206 x 25 (mm)
Wght: 369g
Freq: 30Hz - 15kHz
Out Sens: 2.5mV/Pa
Max SPL: 130dB
Self Noise: 18dBA
Out Imp: 300Ω
Rec Load: 1.5kΩ

2013 Technical GRAMMY®



"Royer Labs' line of ribbon microphones has made a profound difference in the way engineers record music. The Company's ribbon technology is extremely natural sounding and brings a more realistic, analog sound and feel to digital recordings and live sound reproduction. In the '90s, Royer Labs single-handedly brought ribbon microphones into mainstream recording. Royer's innovations continue to win the praise of artists, producers, and engineers today."



Royer Ribbons
 818.847.0121
www.royerlabs.com

- The Recording Academy

SF-24

\$4495 MSRP

Polar: Figure-of-8
Dim: 270 x 39 mm
Wght: 583g
Freq: 40Hz - 15kHz
Out Sens: 12.5mV/Pa
Max SPL: 130dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 4mA per channel
Con via: Multi-conductor

cable
Pad: -
Filt Freq: -
Slope: -
SA: Carrying case, XLR-5 to two XLR-3 cable, shockmount, protective case, mic sock
OA: -



SF-24V

\$6195 MSRP

Polar: Figure-of-8
Dim: 270 x 39 mm
Wght: 583g
Freq: 30Hz - 15kHz
Out Sens: 12.5mV/Pa
Max SPL: 130dB
Self Noise: 18dBA
Out Imp: 300Ω
Rec Load: 1.5kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 4mA
Con via: XLR-7 (M), XLR-3

(M)
Pad: -
Filt Freq: -
Slope: -
SA: Carrying case, PSU, wooden case, XLR-5 to two XLR-3 cable, shockmount
OA: -



SE Electronics

SE Electronics are one of the most prolific modern mic manufacturers. Since being founded in 2000, they've released an enormous range of models covering almost every type of microphone and at pretty much every price level.

USA: www.fingerprinaudio.com
HQ: www.seelectronics.com



Voodoo VR2

\$999

Polar: Figure-of-8
Dim: 40 x 183 (mm)
Wght: 325g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 135dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 2mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden case
OA: Pop shield

 SOS Review (February 2011)
www.soundonsound.com/sos/feb11/articles/se-voodoo.htm



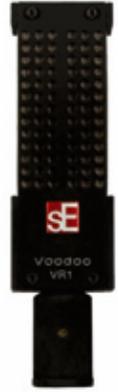
Voodoo VR1

\$699

Polar: Figure-of-8
Dim: 40 x 123 (mm)
Wght: 235g
Freq: 20Hz - 20kHz
Out Sens: 1.8mV/Pa
Max SPL: 135dB
Self Noise: 17dBA
Out Imp: 300Ω
Rec Load: 1.5kΩ
Pwr Type: Passive
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden case
OA: Pop shield

 SOS Review (February 2011)
www.soundonsound.com/sos/feb11/articles/se-voodoo.htm



SE Rupert Neve

SE Electronics and Rupert Neve announced their first collaborative mic, the RNR ribbon, in 2008. In 2011, they announced the RN17, which is the world's first pencil microphone to include a large transformer.

USA: www.fingerprinaudio.com
HQ: www.seelectronics.com

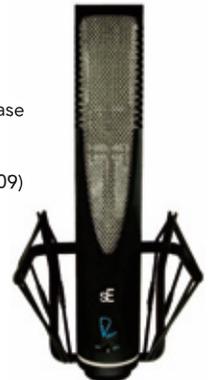
RNR1

\$1995

Polar: Figure-of-8
Dim: 47 x 265 (mm)
Wght: 845g
Freq: 20Hz - 25kHz
Out Sens: 25mV/Pa
Max SPL: 135dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 3.5mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: 250Hz
Slope: 6dB/Oct
SA: Shockmount, wooden case, flightcase
OA: Pop shield

SOS Review (May 2009)
www.soundonsound.com/sos/may09/articles/sernr1.htm



Shure

American company Shure make some of the most widely used dynamic mics, including the SM57 and SM58. They also manufacture high-end studio condensers, as well as wireless mic kits.

HQ: www.shure.com



KSM313/NE Ribbon \$1295

Polar: Figure-of-8
Dim: 135 x 43 mm
Wght: 400g
Freq: 30Hz - 15kHz
Out Sens: 1.8mV/Pa
Max SPL: 146dB
Self Noise: -
Out Imp: 330Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Pad: -
Con via: -
Slope: -
Filt Freq: -
SA: Aluminum carry case, Shure lock stand mount, velveteen Pouch
OA: -



KSM353/ED Ribbon \$2695

Polar: Figure-of-8
Dim: 158 x 48 mm
Wght: 633g
Freq: 30Hz - 15kHz
Out Sens: 2.1mV/Pa
Max SPL: 146dB
Self Noise: -
Out Imp: 330Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Pad: -
Con via: -
Slope: -
Filt freq: -
SA: Aluminum carry case, Shure lock wire-rope suspension mount, velveteen pouch, polishing cloth
OA: -



Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

USA: www.proaudiodesign.com
HQ: www.sontronics.com

Apollo (Stereo) \$1599

Polar: Figure-of-8
Dim: 65 x 260 (mm)
Wght: 744g
Freq: 20Hz - 18kHz +/- 1dB
Out Sens: 18mV/Pa
Max SPL: 125dB
Self Noise: 12dBA
Out Imp: <150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-6 (M)
Filt Freq: -
Slope: -
SA: Shockmount, aluminium flightcase, lifetime warranty
OA: ST-Pad/Phase (in-line -10dB pad and phase invert), ST-Pop shield, Ultima XLR cables with Neutrik connectors, Matrix microphone stand



Delta \$999

Polar: Figure-of-8
Dim: 72 x 164 (mm)
Wght: 470g
Freq: 20Hz - 15kHz
Out Sens: 6mV/Pa
Max SPL: 140dB
Self Noise: 14dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, aluminium flight case, lifetime warranty
OA: ST-Pad/Phase (in-line -10dB pad and phase invert), ST-Pop shield, Ultima XLR cables with Neutrik connectors, Matrix microphone stand
SOS Review (April 2010)
www.soundonsound.com/sos/apr10/articles/sontronicsdelta.htm



Sigma \$849

Polar: Figure-of-8
Dim: 50 x 164 (mm)
Wght: 421g
Freq: 20Hz - 15kHz
Out Sens: 18mV/Pa
Max SPL: 125dB
Self Noise: 14dBA
Out Imp: <150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: Shockmount, aluminium flight case, lifetime warranty
OA: ST-Pad/Phase (in-line -10dB pad and phase invert), ST-Pop shield, Ultima XLR cables with Neutrik connectors, Matrix microphone stand

SOS Review (May 2007)
www.soundonsound.com/sos/may07/articles/sontronicsigma.htm



VALVE/TUBE MICROPHONES

Before solid-state circuitry became widely available, all active microphones (capacitor mics, mostly) used valves. Although solid-state microphones are theoretically capable of capturing sound more accurately than valve models, valves in audio equipment can impart a pleasing sonic character, and are often said to make things sound slightly 'larger than life'. For this reason, classic valve microphones like Neumann's U47 are still highly sought after, and many companies are making new valve models too, usually with the aim of making a microphone that has a 'vintage' sound quality. Because of the high voltages required to adequately power a valve, most of these models come with their own power supply, which will usually connect to the microphone via a non-standard, multi-pin XLR cable. If the mic is a multi-pattern model, the power supply will often also house the pattern-selector switch.



ADK & 3 Zigma

Founded by Steinway piano expert and musician Lawrence Vilella in 1998, ADK aim to produce high-quality mics at affordable prices. In addition to their many large-diaphragm condensers, they also supply individual mic capsules, and upgrade mics to their users' specifications.

Part of the same company, 3 Zigma Audio create a modular 'hybrid' system of microphone capsule modules and ultra-low-noise head-amp modules. This system allows both large- and small-diameter capsules to work with a variety of FET and valve head-amps. The head-amps listed here show the specifications available when used with the different bodies available.

HQ: www.adkmic.com
 HQ: www.hybridmic.com

Custom Shop TC12 \$999

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shock mount, ring mount, 7-pin XLR cable, power supply, pop filter, wind screen, case
OA: Upgraded Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TC67 \$999

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, ringmount, XLR-7 (M) cable, power supply, pop filter, windscreen, case
OA: Upgraded Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TC47 \$999

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Flt Freq: -
Slope: -
SA: Shockmount, ring mount, XLR-7 (M) cable, power supply, pop filter, windscreen, case
OA: Upgraded Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TC251 \$999

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Flt Freq: -
Slope: -
SA: Shockmount, ringmount, XLR-7 (M) cable, power supply, pop filter, windscreen, case
OA: Upgraded Accusound OFC copper cables or silver cables, low noise tube



Z-12 \$2999

Polar: Nine selectable patterns
Dim: 53 x 225 (mm)
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 17.8mV/Pa
Max SPL: 127dB
Self Noise: 14dBA
Out Imp: 250Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Pad: -
Con via: XLR-3 (M), XLR-7 (M)
Slope: -
Flt Freq: -
SA: Mounting hardware, XLR-3 & XLR-7 cables PSU, flight case
OA: -



Z-47 \$2999

Polar: Nine selectable patterns
Dim: 53 x 225 (mm)
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 14.1mV/Pa
Max SPL: 129dB
Self Noise: 16dBA
Out Imp: 250Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Pad: -
Con via: XLR-3 (M), XLR-7 (M)
Slope: -
Flt Freq: -
SA: Mounting hardware, XLR-3 & XLR-7 cables PSU, flight case
OA: -



Z-49 \$2999

Polar: Nine selectable patterns
Dim: 53 x 225 (mm)
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 17.8mV/Pa
Max SPL: 129dB
Self Noise: 16dBA
Out Imp: 250Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Pad: -
Con via: XLR-3 (M), XLR-7 (M)
Slope: -
Flt Freq: -
SA: Mounting hardware, XLR-3 & XLR-7 cables PSU, flight case
OA: -



Z-67 \$2999

Polar: Nine selectable patterns
Dim: 53 x 225 mm
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 14.1mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 250Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Pad: -

Con via: XLR-3 (M), XLR-7 (M)
Slope: -
Flt Freq: -
SA: Mounting hardware, XLR-3 & XLR-7 cables PSU, flight case
OA: -



Z-251 \$2999

Polar: Nine selectable patterns
Dim: 53 x 225 mm
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 17.8mV/Pa
Max SPL: 128dB
Self Noise: 15dBA
Out Imp: 250Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Pad: -
Con via: XLR-3 (M), XLR-7 (M)
Slope: -
Flt Freq: -
SA: Mounting hardware, XLR-3 & XLR-7 cables PSU, flight case
OA: -



Audiophile TT Mk10

\$897

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 53 x 225 (mm)
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: PSU, shockmount, deluxe flight case, multi-pin cable, XLR-3 (M) cable, windscreen, pop filter
OA: -



Audiophile TC Mk9

\$597

Polar: Cardioid
Dim: 53 x 165 (mm)
Wght: 550g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: Dedicated power supply
Alt Pwr: -
SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: PSU, shockmount, deluxe flight case, multi-pin cable, XLR-3 (M) cable, windscreen, pop filter
OA: -



Custom Shop TT12

\$1449

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: Dedicated power supply
Alt Pwr: -
SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, ring mount, XLR-7 (M) cable, 9 polar patterns and 6 intermediate positions, PSU, XLR-3 (M) cable, windscreen, pop filter, case
OA: Upgrade to Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TT47

\$1449

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, ringmount, XLR-7 (M) cable, 9 polar patterns and 6 intermediate positions, power supply, XLR-3 (M) cable, windscreen, pop filter, case
OA: Upgrade to Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TT67

\$1449

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, ringmount, XLR-7 (M) cable, 9 polar patterns and 6 intermediate positions, power supply, XLR-3 (M) cable, windscreen, pop filter, case
OA: Upgrade to Accusound OFC copper cables or silver cables, low noise tube



Custom Shop TT251

\$1449

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 15dBA
Out Imp: <250Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, ringmount, XLR-7 (M) cable, 9 polar patterns and 6 intermediate positions, power supply, XLR-3 (M) cable, windscreen, pop filter, case
OA: Upgrade to Accusound OFC copper cables or silver cables, low noise tube



MAXIMUM VELOCITY



When working fast to capture an emotional performance, you need tools that deliver a big sound with a straight-forward setup. Famed producer/engineer Vance Powell (*Jack White, Buddy Guy, The Dead Weather, Red Fang*) uses AEA RPQ500 preamps and R92 *Big Ribbon*[™] mics to create his multi-Grammy[®] winning records.

**Call us or visit us online to find out
what AEA can do for your sound.**

Call +1 626-798-9128

www.RibbonMics.com

facebook.com/ribbonmics



Audio Engineering
Associates

Handmade in Pasadena, California

AKG

Founded in Vienna in 1947, AKG Acoustics are a manufacturer of microphones, headphones, wireless audio systems and related accessories for professional and consumer markets. Some of their vintage models, like the C12, are both rare and desirable, while their current models, including the C414, can be found in studios around the world.

HQ: www.akg.com

C12 \$4999

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 42 x 225 (mm)
Wght: 680g
Freq: 30Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 128dB
Self Noise: 22dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: Dedicated power supply

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10, -20 dB
Filt Freq: 100, 130 Hz
Slope: 6, 12 dB/Oct
SA: Shockmount, power supply, cable, windscreen, flight case
OA: Pop screen



Perception 820 \$699

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 53 x 212 (mm)
Wght: 870g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 155dB
Self Noise: 16dBA
Out Imp: <200Ω
Rec Load: >1kΩ
Pwr Type: Via remote control unit
Alt Pwr: -
SC: -
Con via: XLR-7 (M)
Pad: -20dB
Filt Freq: 80Hz
Slope: 12dB/Oct
SA: Power supply, spider suspension, metal case, cable
OA: Windscreen, pop screen

SOS Review (August 2010)
www.soundonsound.com/sos/aug10/articles/akg-perception-820.htm



Audio-Technica

For 50 years Audio-Technica have aimed to produce audio excellence and innovations in transducer technology. Renowned for the design and manufacture of high-quality audio products, the company offer a complete range of wired and wireless microphones, headphones and accessories for broadcast, live-sound, recording and installed-sound functions.

HQ: www.audio-technica.com

AT4060 \$1815

Polar: Cardioid
Dim: 53.4 x 210 (mm)
Wght: 640g
Freq: 20Hz - 20kHz
Out Sens: 19.9mV/Pa
Max SPL: 150dB, 149dB
Self Noise: 19dBA
Out Imp: 200Ω
RL: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con Via: XLR-6 (M)

Pad: -
Filt Freq: -
Slope: -
SA: PSU, shockmount; rackmount adapters for PSU, carrying case, 10m XLR-6 cable, AC PSU cable
OA: -



Avantone

Avantone are best known for their Mixcube single-driver loudspeakers, but they also make a range of high-quality solid-state and valve condenser microphones, as well as dynamic drum mics and ribbon mics.

HQ: www.avantonepro.com

CV-12 \$499

Polar: Omnidirectional, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 46 x 237 (mm)
Wght: 800g
Freq: 25Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 136dB
Self Noise: 78dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-7 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Retro shockmount, extra elastic bands, PS-12 multi-pattern, power supply with cables, padded wooden box, padded aluminium storage, travel case
OA: -



BV1 \$999

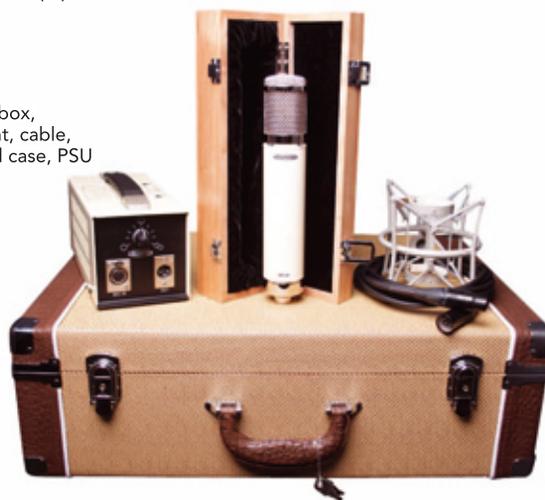
Polar: -
Dim: 63 x 250 (mm)
Wght: 1.3kg
Freq: -
Out Sens: 17mV/Pa
Max SPL: 134dB, 144dB
Self Noise: 78dBA
Out Imp: 200Ω
Pwr Type: -
Alt Pwr: -
Con via: XLR-7 (M)
SC: -

Pad: -
Filt Freq: -
Slope: -
SA: Power supply, padded wooden box, shockmount, tweed road case, removable metal pop filter, cable
OA: -



BV-12 \$899

Polar: 9 patterns selectable at PSU
Dim: 46 x 237 (mm)
Wght: 800g
Freq: 20Hz - 20kHz
Out Sens: 12.5mV/Pa
Max SPL: 136dB
Self Noise: 78dBA
Out Imp: 250Ω
Pwr Type: PSU
Alt Pwr: -
Con via: XLR-7 (M)
SC: -
Pad: -
Filt Freq: -
Slope: -
SA: Wood box, shockmount, cable, tweed road case, PSU
OA: -



CV-28 \$449

Polar: Omni, cardioid, hypercardioid (interchangeable capsules)
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 136dB
Self Noise: -
Out Imp: 250Ω
Pwr Type: PSU
Alt Pwr: -

Con via: XLR-7 (M)
SC: -
Pad: -
Filt Freq: -
Slope: -
SA: Padded wooden box, shockmount, metal road case
OA: -



BeesNeez

Australian company BeesNeez offer a diverse range of microphones for the recording, broadcast and film industries. They're a small company, yet they manufacture every part of their mics themselves, including the capsules.

HQ: www.beesneezmicrophones.com.au

Arabella \$3000

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 63 x 195 (mm)
Wght: 1.2kg
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 13dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



James \$2200

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 53 x 195 (mm)
Wght: 1.05kg
Freq: 20Hz - 19kHz
Out Sens: 12mV/Pa
Max SPL: 136dB
Self Noise: 13dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



Mahalia \$2800

Polar: -
Dim: 53 x 195 (mm)
Wght: 1.05kg
Freq: 20Hz - 21kHz
Out Sens: 12mV/Pa
Max SPL: 136dB
Self Noise: 14dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic,

XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



»

Phelicity
\$3000

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 53 x 195 (mm)
Wght: 1.1kg
Freq: -
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 12dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



Sally
\$2800

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 53 x 195 (mm)
Wght: 1.1kg
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 12dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



SOS Review (November 2011)
www.soundonsound.com/sos/nov11/articles/bees-neeze-sally.htm

LuLu
\$1378.85

Polar: Cardioid, hypercardioid
Dim: 15 x 120 (mm)
Wght: 100g
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 8dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, wooden box
OA: -



T1 U47 Tribute
\$4600

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 64 x 195 (mm)
Wght: 1.3kg
Freq: 20Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 12dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



T2 ELA M251 Tribute
\$4600

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 53 x 195 (mm)
Wght: 1.2kg
Freq: -
Out Sens: 12mV/Pa
Max SPL: 136dB
Self Noise: 13dBA
Out Imp: 150Ω
Rec Load: -

Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M) to mic, XLR-3 (M) output
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, lead, power supply, waterproof case
OA: -



Behringer

Behringer were founded in 1989 and offer equipment for a range of applications at consumer prices. They produce a comprehensive product line including loudspeakers, amplifiers, mixers, powered mixers, computer-based recording and DJ products, microphones, headphones, wireless systems, musical instruments and professional lighting systems.

HQ: www.behringer.com



“FROM A GOOD MICROPHONE
WE EXPECT CLARITY.”



“With the rebirth of **Atlantic Studios**, we are constantly searching for state-of-the-art gear to bring out the best in our artists’ performances. The LEWITT **LCT 940** has been a fantastic addition to our audio arsenal. It not only has a full, rich low end and crystal clear highs, but its combination of sonic flexibility and transparency is truly exceptional.

We have been making beautiful recordings with the **LCT 940** and are looking forward to more great things from our friends at LEWITT.

Thank you for the amazing gear!”

Craig Kallman
CEO of Atlantic Records //
Official LEWITT Endorser

The LEWITT **LCT 940** combines the characteristics of both Tube and FET condenser microphones in a single housing. Two independent signal paths can be blended in any ratio.



LCT Recording Series



DTP Percussion Series



MTP Performance Series



LTS Wireless Series



Also available at **Sweetwater** Music Instruments & Pro Audio **Guitar Center** **FULL COMPASS** **Musician's Friend** **Sam Ash**
For sales inquiries contact sales@trunorthmusicandsound.com // +1 855 878 6668 105 // www.trunorthmusicandsound.com

www.lewitt-audio.com
visit us on Facebook and YouTube



T1
\$179.99

Polar: Cardioid
Dim: 68 x 211 (mm)
Wght: 0.77kg
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 130dB
Self Noise: -
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 160mA
Con Via: XLR-3 (M)

Pad: -
Filt Freq: 100Hz
Slope: -
SA: PSU with cable, shockmount, windscreen, carrying case
OA: -



T47
\$179.99

Polar: Cardioid
Dim: 62 x 215 (mm)
Wght: 0.47kg
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 130dB
Self Noise: -
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 250mA / 125mA
Con Via: -

Pad: -
Filt Freq: 100Hz
Slope: -
SA: PSU with cable, shockmount, windscreen, carrying case
OA: -



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics, Blue Microphones products offer innovative design and high performance.

HQ: www.bluemic.com

Bottle
\$5999.99

Polar: Omnidirectional, cardioid, figure-of-8, hemispherical
Dim: 90 x 390 (mm)
Wght: 1.7kg
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 134dB
Self Noise: 7.5dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: B6 capsule, PSU, tube microphone cable, ATA flight case
OA: Eight additional bayonet-mounted capsules, Kiwi cable: quad-conductor cable for maximum frequency resolution



Brauner

Brauner Microphones are a Germany-based manufacturer of hand-crafted high-end microphones. The company were founded in 1995 by Sound Engineer Dirk Brauner.

USA: www.braunerusa.com
HQ: www.brauner-microphones.com

Valvet
\$3285

Polar: Omnidirectional, cardioid
Dim: 50 x 150 (mm)
Wght: 550g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, shockmount, Vovox-Tubelink cable, aluminium case
OA: Pop filter

SOS Review (March 2004)
www.soundonsound.com/sos/mar04/articles/braunervalet.htm



Valvet X
\$2835

Polar: Cardioid
Dim: 50 x 150 (mm)
Wght: 550g
Freq: 20Hz - 22kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 9dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: -

Pad: -
Filt Freq: -
Slope: -
SA: PSU, shockmount, Vovox-Tubelink cable, aluminium case
OA: Pop filter



VM1
\$5849.10

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 50 x 210 (mm)
Wght: 850g
Freq: 20Hz - 20kHz
Out Sens: 28mV/Pa
Max SPL: 142dB
Self Noise: 11dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: -
Pad: -10dB
Filt Freq: -
Slope: -
SA: PSU, pop shield, shockmount, Vovox-Tubelink cable, aluminium case
OA: -



VMX \$6119.10

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8

Dim: 50 x 210 (mm)

Wght: 850g

Freq: 20Hz - 22kHz

Out Sens: 28mV/Pa

Max SPL: 142dB

Self Noise: 11dBA

Out Imp: 200Ω

Rec Load: >1kΩ

Pwr Type: PSU

Alt Pwr: -

SC: -

Con via: -

Pad: -10dB

Filt Freq: -

Slope: -

SA: PSU, pop shield, shockmount, Vovox-

Tubelink cable,

aluminium case

OA: -



VMA \$8729.10

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8

Dim: 50 x 210 (mm)

Wght: 850g

Freq: 20Hz - 22kHz

Out Sens: 28mV/Pa

Max SPL: 142dB

Self Noise: 11dBA

Out Imp: 200Ω

Rec Load: >1kΩ

Pwr Type: PSU

Alt Pwr: -

SC: -

Con via: -

Pad: -

Filt Freq: -

Slope: -

SA: PSU, pop shield, shockmount, Vovox-

Tubelink cable,

aluminium case

OA: -



Charter Oak

Charter Oak, founded in 2002 by producer and engineer Michael Deming, create high-quality, hand-assembled recording products that rival higher-priced microphones and signal processors in the industry. The studio background of its founder gives Charter Oak the inside edge and has resulted in multi-award-nominated products.

USA: www.soundpure.com

HQ: www.charter oakacoustics.com

H1000 \$1999

Polar: Omnidirectional, cardioid, figure-of-8

Dim: -

Wght: -

Freq: 30Hz - 20kHz

Out Sens: 12mV/Pa

Max SPL: 129dB

Self Noise: 20dBA

Out Imp: <200Ω

Rec Load: >200Ω

Pwr Type: PSU

Alt Pwr: -

SC: -

Con via: XLR-7 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Case, shockmount, PSU, cables, windscreens

OA: -



SONICALLY superior & TOTALLY versatile

CharterOak
creating the classics of tomorrow®

CharterOak
WWW.COPROAUDIO.COM

LIKE US ON FACEBOOK
CHARTEROAKMICROPHONES

SA538
\$1349

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: 900g
Freq: 30Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 128dB
Self Noise: -
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, cables, PSU, locking flight case, lifetime warranty
OA: Pop filter

SOS Review (December 2006)
www.soundonsound.com/sos/dec06/articles/charteroak.htm



S600
\$1899

Polar: Cardioid
Dim: -
Wght: -
Freq: 20Hz - 18kHz
Out Sens: 13mV/Pa
Max SPL: 125dB
Self Noise: 22dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Stereo pair, flight case, shockmounts, cables
OA: -

SOS Review (June 2007)
www.soundonsound.com/sos/jun07/articles/charteroak_s600.htm



SA538B
\$1429

Polar: Omnidirectional, cardioid, figure-of-8
Dim: -
Wght: 900g
Freq: 25Hz - 20kHz
Out Sens: 12mV/Pa
Max SPL: 125dB
Self Noise: 20dBA
Out Imp: <200Ω
Rec Load: >200Ω
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, cables, PSU, locking flight case, lifetime warranty
OA: Pop filter

SOS Review (December 2006)
www.soundonsound.com/sos/dec06/articles/charteroak.htm



Golden Age Project

Golden Age Project are a spin-off of the high-end pro audio distribution activities of Golden Age Music, a Swedish company founded by Bo Medin in 1982. Golden Age Project offer affordable vintage-style products.

HQ: www.goldenagemusic.se

TC1
\$299.99

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 52 x 193 (mm)
Wght: 500g
Freq: 20Hz - 20kHz
Out Sens: 15mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: -
Pad: -10dB
Filt Freq: 100Hz
Slope: -
SA: PSU, cables, shockmount, aluminium case
OA: -



Harper Diabate

Harper Diabate are a specialist manufacturer of valve and ribbon microphones. They are also the record label behind the successful Invisible System album releases.

HQ: www.harperdiabate.com

HDV-1
£325.50 (US price not available)

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 48 x 245 (mm)
Wght: 1kg
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 134dB
Self Noise: 20dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Hard-lined padded case, PSU, foam cover, cradle
OA: -

SOS Review (November 2008)
www.soundonsound.com/sos/nov08/articles/harperdiabatehdv1.htm



Lauten

Lauten Audio, based in Northern California, are a boutique designer and manufacturer of microphones and related equipment. Founded in 2004 by Brian Loudenslager, Lauten's USP is that, unlike many manufacturers, they do not seek to create designs that are neutral and forensically accurate, but rather microphones that are musically involving and creative, with an 'original' sound character.

HQ: www.lautenaudio.com

Oceanus LT-381 \$1899 MSRP

Polar: Nine-step cardioid, omni-directional, figure-8
Dim: 195 x 79 (mm)
Wght: 1.2kg
Freq: 20Hz - 20kHz
Out Sens: 16mV/Pa
Max SPL: 130dB
Self Noise: 20dBA
Out Imp: <200Ω
Rec Load: 300Ω
Pwr Type: PSU
Alt Pwr: -

SC: -
Con Via: XLR-7 (M)
Filt Freq: -
SA: Shockmount, 7-pin cable, wooden box, PSU
OA: -



Manley Laboratories

Manley's first commercially available products were hi-fi tube amps and preamps, but their portfolio now includes a small selection of premium, tube-based, large-diaphragm capacitor mics.

HQ: www.manley.com

Reference Cardioid \$2700

Polar: Cardioid
Dim: 114 x 246 (mm)
Wght: 1.02kg
Freq: 10Hz - 30kHz
Out Sens: 17mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 200Ω
Rec Load: 2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, swivel, leather capsule protector, power supply, 6-pin cable to PSU, carry case
OA: -



Reference Gold \$4950

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8

Dim: 114 x 246 (mm)
Wght: 1.02kg
Freq: 10Hz - 30kHz
Out Sens: 17mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 200Ω
Rec Load: 2kΩ

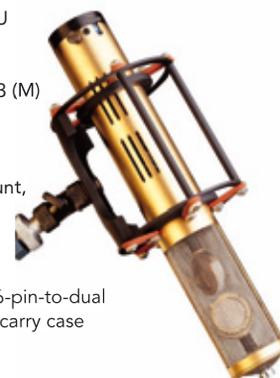
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, swivel, leather capsule protector, power supply, 6-pin cable to PSU, carry case
OA: -



Stereo Reference Gold \$7200

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 114 x 318 (mm)
Wght: 1.13kg
Freq: 10Hz - 30kHz
Out Sens: 17mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 200Ω
Rec Load: 2kΩ

Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, swivel, leather capsule protector, PSU, 4-pin power cable, 6-pin-to-dual XLR 'Y' cable, carry case
OA: -



Microtech Gefell

Microtech Gefell GmbH are a German manufacturer of studio and measurement microphones that are exclusively hand made. Besides microphones, Microtech Gefell GmbH offer calibration and service for the whole product range. They continue the tradition of Georg Neumann who founded the company in 1928.

HQ: www.microtechgefell.de

M92.1S \$2810

Polar: Cardioid
Dim: 42 x 197 (mm)
Wght: 430g
Freq: 40Hz - 20kHz
Out Sens: 19mV/Pa
Max SPL: 118dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: ≥1kΩ
Pwr Type: Power supply
Alt Pwr: -
SC: -
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Power supply, microphone cable, elastic suspension
OA: Windscreen (W92), microphone holder (MH80)



UM 900
\$4730

Polar: Omnidirectional, wide cardioid, cardioid, hypercardioid, figure-of-8
Dim: 75 x 200 (mm)
Wght: 900g
Freq: 40Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 30Ω
Rec Load: ≥1kΩ
Pwr Type: P48
Alt Pwr: -

SC: 4mA
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 70Hz
Slope: -
SA: Wooden case
OA: Windscreen (W81), elastic suspension (EA92), microphone holder (MH80)

SOS Review (January 1999)
www.soundonsound.com/sos/jan99/articles/geffelum900.968.htm



CMV 563 / M 7 S
\$5850

Polar: cardioid
Dim: 42 x 216 (mm)
Wght: 540g
Freq: 20Hz - 20 kHz
Out Sens: 17mV/Pa
Max SPL: 115dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: ≥1kΩ
Pwr Type: -
Alt Pwr: -
SC: -
Con via: PSU

Filt Freq: -
SA: Elastic suspension EA 92, bayonet adaptor G/B
OA: -

SOS Review (April 2013)
www.soundonsound.com/sos/apr13/articles/gefell-cmv563.htm



Miktek

Miktek produce precision microphones, which are handmade in Nashville, USA. The company are inspired by iconic mics of the past, and develop capsules and unique circuits to capture sound. Using the very latest in audio technology, Miktek's designs are approved by some of the world's most acclaimed sound engineers.

HQ: www.miktekaudio.com

CV4
\$1399

Polar: Omnidirectional, subcardioid, cardioid, figure-of-8, hemispherical
Dim: 51 x 229 (mm)
Wght: 680g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 133dB
Self Noise: 16dBA
Out Imp: -
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wood case, serialised frequency response graph, PSU, XLR-7 (M) cable, swivel mount, shockmount, aluminium carry case
OA: -

SOS Review (May 2011)
www.soundonsound.com/sos/may11/articles/mikte-cv4.htm



Mojave Audio

Founded by David Royer (known for his ribbon mic designs for Royer Labs) in 1985, Mojave Audio was a one-man, custom pro audio gear shop. Since the mid-1990s, Mojave mics have been used by high-end engineers on a number of well-known recordings. The company was relaunched in 2005, with David's non-ribbon mic designs.

HQ: www.mojaveaudio.com

MA-300
\$1295

Polar: Omnidirectional, subcardioid, supercardioid, hypercardioid, figure-of-8
Dim: 50 x 190 (mm)
Wght: 454g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 120dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: >1kΩ
Pwr Type: PSU
Alt Pwr: -

SC: 0.5mA (120V)m 150mA (6V)
Con via: XLR-7 (M) to PSU, XLR-3 (M) out
Pad: -15dB
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: PSU, XLR-7 (M) cable, flight case, power cable, shockmount, microphone case
OA: -



MA-200
\$1095

Polar: Cardioid
Dim: 50 x 190 (mm)
Wght: 454g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 120dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 0.5mA (120V)m 150mA (6V)
Con via: XLR-5 (M) to PSU,

XLR-3 (M) out
Pad: -
Filt Freq: -
Slope: -
SA: PSU, XLR-5 (M) cable, flight case, power cable, shockmount, microphone case
OA: -



MA-100
\$795

Polar: Omnidirectional, cardioid
Dim: 19 x 140 (mm)
Wght: 181g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 450Ω
Rec Load: 2.5kΩ
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: XLR-5 (M) to PSU, XLR-3 (M) out
Pad: -
Filt Freq: -
Slope: -
SA: PSU, XLR-5 (M) cable, flight case, power cable, microphone clip
OA: -



MXL

The microphone division of Marshall Electronics (not the similarly named guitar-amp makers), MXL started off producing low-cost studio capacitor mics, but have since branched out into ribbon mics and models designed for the stage.

HQ: www.mxlmicro.com

V69 Mogami Edition \$299.95

Polar: Cardioid
Dim: 47 x 218 (mm)
Wght: 500g
Freq: 20Hz - 18kHz
Out Sens: 79mV/Pa
Max SPL: 140dB
Self Noise: 22dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: High-isolation shockmount, Mogami cable, hard mount, microphone stand adaptor, windscreen, PSU, aluminium flight case
OA: Metal mesh pop filter



Genesis \$595

Polar: Cardioid
Dim: 59 x 240 (mm)
Wght: 703g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 130dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -10dB
Filt Freq: 150Hz
Slope: 6dB/Oct
SA: High-isolation shockmount, metal mesh pop filter, dedicated PSU, Mogami cable, wooden storage case
OA: Windscreen

SOS Review (July 2010)
www.soundonsound.com/sos/jul10/articles/mxlgenesis.htm



»

THE CLASSICS OF THE PAST
THE LEGENDS OF TOMORROW...

TELEFUNKEN ELEKTROAKUSTIK
WWW.T-FUNK.COM +1.860.882.5919

Revelation
\$1,495

Polar:
Dim: 190 x 63.5 (mm)
Wght: 907g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: 140Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: 7-pin Mogami cable, aluminum flight case, cleaning cloth, PSU, shockmount
OA: PF-002 or PF-003 pop filter



Revelation Solo
\$TBA

Polar: -
Dim: 190 x 63.5 (mm)
Wght: 907g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: 140Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con Via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Aluminum case, 7-pin Mogami cable, XLR Mogami cable, PSU, shockmount
OA: PF-002 or PF-003 pop filter



Oktava

Oktava are the oldest major Russian manufacturer of professional audio equipment, famous for their ribbon models as well as small- and large-diaphragm condenser microphones.

HQ: www.oktavausa.com

Mini Tube
\$650

Polar: Omnidirectional, cardioid, hypercardioid, figure-of-8
Dim: 20 x 105 (mm)
Wght: 120g
Freq: 20Hz - 20kHz
Out Sens: 10-14mV/Pa
Max SPL: >120dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1kΩ



Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-5 (M)
Pad: -10dB
Filt Freq: 200Hz
Slope: -
SA: PSU, cable, microphone holder, wooden box

OA: Small-diaphragm capsules (cardioid, omni, hypercardioid, figure-of-8), large-diaphragm capsules, medium-diaphragm capsules

Peluso

Peluso produce top-quality studio microphones inspired by classic vintage designs. Hand assembled from quality modern and vintage components, Peluso mics are extensively tested by computer frequency response and human listening tests, ensuring the lowest noise standards.

HQ: www.pelusomicrophonelab.com

22 47 LE
\$2070.29

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 58 x 235 (mm)
Wght: 855g
Freq: 20Hz - 22kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: 8-pin screw-on
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, 8-pin microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Stereo matched pair



22 47 SE
\$1671.85

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 60 x 235 (mm)
Wght: 855g
Freq: 20Hz - 33kHz
Out Sens: 12mV/Pa
Max SPL: 140dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: 8-pin screw-on
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, 8-pin microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Stereo matched pair SOS Review (September 2007)
www.soundonsound.com/sos/sep07/articles/peluso2247SE.htm



22 251
\$1292.84

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 45 x 240 (mm)
Wght: 750g
Freq: 20Hz - 24kHz
Out Sens: 14mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: 8-pin screw-on
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, 8-pin microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Stereo matched pair



P-12

\$1297.09

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 45 x 240 (mm)
Wght: 750g
Freq: 20Hz - 24kHz
Out Sens: 11mV/Pa
Max SPL: 138dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, XLR-7 (M) microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Stereo-matched pair



P-28

\$763.41

Polar: Cardioid
Dim: 28 x 184 (mm)
Wght: 300g
Freq: 20Hz - 24kHz
Out Sens: 11mV/Pa
Max SPL: 141dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 500mA
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -

SA: Shockmount, XLR-7 (M) microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Omnidirectional capsules, stereo-matched pair



P-67

\$1963.50

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 56 x 205 (mm)
Wght: 600g
Freq: 20Hz - 20kHz
Out Sens: 18mV/Pa
Max SPL: 148dB
Self Noise: 14dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: 8-pin screw-on

Pad: -10dB
Filt Freq: -
Slope: -
SA: Shockmount, 8-pin microphone cable, PSU, power cable, wooden microphone box, flight case
OA: Stereo-matched pair



VTB

\$1271.81

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 50 x 225 (mm)
Wght: 620g
Freq: 20Hz - 24kHz
Out Sens: 11mV/Pa
Max SPL: 150dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: 500mA
Con via: XLR-7 (M)

Pad: -15dB
Filt Freq: 100Hz
Slope: 6dB/Oct
SA: Shockmount, XLR-7 (M) microphone cable, PSU, power cable, wooden microphone box, flight case, pop screen
OA: Stereo-matched pair



Red5 Audio

Red5 Audio, formed in 2001, are a small Scottish company who manufacture microphones for both the professional and home enthusiast markets, and aim to provide excellent customer service. They also make a range of mic accessories, including shockmounts and pop shields.

HQ: www.red5audio.com

RV15

£220 (US price not available)

Polar: Cardioid
Dim: 55 x 205 (mm)
Wght: 580g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 128dB
Self Noise: 15dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -

Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Flight case, shockmount, foam wind shield, PSU with cable
OA: -



RØDE

Rode are based in Sydney, Australia, where all their microphones are designed, and where the majority of their manufacturing takes place. They make all kinds of mics, from valve and solid-state condensers to lapel and video microphones.

HQ: www.rodemic.com

Classic II

\$2099

Polar: Nine selectable patterns including omnidirectional, cardioid, figure-of-8
Dim: 65 x 201 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 131dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU

SC: -
Con Via: XLR-3 (M)

Pad: -10, -20 dB
Filt Freq: 20Hz
Slope: -
SA: Shockmount, ringmount, aluminium flight case, spare twin triode valve, valve storage case, lifetime warranty
OA: -



K2
\$699

Polar: Infinitely variable, including omnidirectional, cardioid, figure-of-8
Dim: 55 x 208 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 15.8mV/Pa
Max SPL: 162dB
Self Noise: 10dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
SC: -

Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Carry case, shockmount, 10 year warranty
OA: Shockmount, ringmount, windshield, zip case, desk stand

SOS Review (July 2004)
<http://www.soundonsound.com/sos/jul04/articles/rodek2.htm>



NTK
\$529

Polar: Cardioid
Dim: 55 x 208 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 12.5mV/Pa
Max SPL: 158dB
Self Noise: 12dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
SC: -
Con Via: XLR-3 (M)
Pad: -

Filt Freq: -
Slope: -
SA: Carry case, ringmount, 10 year warranty
OA: Shockmounts, windshield, zip case, desk stand

SOS Review (July 2001)
<http://www.soundonsound.com/sos/jul01/articles/rode.asp>



SB Audio

Newmann Retro, also known as SB Audio Ltd., were formed by producer Stephen Bull in 2011. The company design and sell the NR range of microphones.

HQ: www.sbaudioltd.com

NR47

£949 (US price not available)

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 60 x 235 (mm)
Wght: 860g
Freq: 20Hz - 22kHz
Out Sens: 12.6mV/Pa
Max SPL: 140dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, aluminium case, wooden box, switchable 110-240V PSU, mains cable, XLR-7 (M) mic-to-PSU cable, microphone stand thread adaptor
OA: Abbey Road-style metal pop filter
SOS Review (March 2010)
www.soundonsound.com/sos/mar10/articles/newmannretro47.htm



sE Electronics

sE Electronics are one of the most prolific modern mic manufacturers. Since being founded in 2000, they've released an enormous range of models covering almost every type of microphone and at pretty much every price level.

USA: www.fingerprintaudio.com
HQ: www.seelectronics.com

Gemini II
\$1599

Polar: Cardioid
Dim: 80 x 223 (mm)
Wght: 1.24kg
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 135dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: 8-pin mic to PSU, XLR-3 (M)
Pad: -10dB
Filt Freq: 250Hz
Slope: 6dB/Oct
SA: Shockmount, PSU, flight case
OA: Pop shield

SOS Review (March 2008)
www.soundonsound.com/sos/mar08/articles/segemini25600aai.htm



Gemini G5
\$1099

Polar: Cardioid
Dim: 68 x 183 (mm)
Wght: 820g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa (FET), 31.6mV/Pa (tube)
Max SPL: 130dB (FET), 132dB (tube)
Self Noise: 18dBA (FET), 16dBA (tube)
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: 8-pin mic to PSU, XLR-3 (M) x 2
Pad: -
Filt Freq: -
Slope: -
SA: Shockmount, PSU, flight case
OA: Pop shield



sE2200T \$499

Polar: Cardioid
Dim: 51 x 212 (mm)
Wght: 575g
Freq: 20Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 130dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: XLR-7 (M) to PSU,

XLR-3 (M)
Pad: -10dB
Filt Freq: 80Hz
Slope: 6dB/Oct
SA: Shockmount, PSU, flight case
OA: Pop shield



Z5600a II \$849

Polar: 9-stage variable from omnidirectional through cardioid to figure-of-8
Dim: 62 x 224 (mm)
Wght: 750g
Freq: 20Hz - 20kHz
Out Sens: 17mV/Pa
Max SPL: 135dB
Self Noise: 16dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU



Alt Pwr: -
SC: -
Con via: 8-pin mic to PSU, XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: 6dB/Oct
SA: Shockmount, PSU, flight case
OA: Pop shield

SOS Review (March 2008)
www.soundonsound.com/sos/mar08/articles/segeminiz5600aii.htm

Sony

Sony Electronics' full line of professional audio technology ranges from portable audio recorders to wireless and wired microphone technology and headphones. They make mics for a wide range of applications, including recording, live sound, theatrical performance and journalism.

HQ: <http://pro.sony.com>

C800GPAC \$2856

Polar: Omnidirectional, cardioid
Dim: 57 x 237 (mm)
Wght: 900g
Freq: 20Hz - 18kHz
Out Sens: 18mV/Pa (omni), 25mV/Pa (cardioid)
Max SPL: 134dB (omni), 131dB (cardioid)
Self Noise: -
Out Imp: 100Ω
Rec Load: -
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: Mic output JR16RK-7P type
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, cradle suspension, stand screw adaptor, mic cable, carry case, G sticker, frequency response chart
OA: -



Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

USA: www.proaudiodesign.com
HQ: www.sontronics.com

Omega \$799

Polar: Cardioid
Dim: 76 x 261 (mm)
Wght: 749g
Freq: 20Hz - 20kHz
Out Sens: 25mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: 8-pin connector, XLR-3 (M)



Pad: -10dB
Filt Freq: 75Hz
Slope: -
SA: Spider shockmount, 2 spare shockmount elastics, wooden case, PSU, -10dB pad and 75Hz filter, 8-pin to 3-pin cable, power cable, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality audio cables with Neutrik XX connectors, professional microphone stand

SOS Review (September 2006)
www.soundonsound.com/sos/sep06/articles/omega.htm

Helios \$899

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 86 x 204 (mm)
Wght: 900g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: 8-pin connector, XLR-3 (M)
Pad: -10dB
Filt Freq: 75Hz
Slope: -
SA: Yoke-style mount, angled microphone clip, stand adaptor, wooden case, PSU, -10dB pad and 75Hz filter, 8-pin to 3-pin cable, power cable, aluminium flight case, lifetime warranty
OA: Pop shield, pro-quality audio cables with Neutrik XX connectors, professional microphone stand

SOS Review (September 2005)
www.soundonsound.com/sos/sep05/articles/sontronicsmics.htm



Studio Projects Microphones

Studio Projects Microphones — a division of PMI Audio Group — is a California-based design house, headed by Brent Casey, which specialises in microphones and electronics for the professional audio market. Founded by Alan Hyatt, the company is entering its thirteenth year.

USA: www.pmiaudio.com
 HQ: www.studioprojects.com

SP TB1 \$499.99

Polar: Cardioid
Dim: 52 x 210 (mm)
Wght: 408g
Freq: 20Hz - 20kHz
Out Sens: 27mV/Pa
Max SPL: 120dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: 1.2kΩ
Pwr Type: P48
Alt Pwr: -
SC: 1mA, 150mA
Con via: XLR-7 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Foam windscreen, XLR-7 (M) cable, PSU, shockmount
OA: Metal pop screen, Litz wire microphone cable



SP T3 \$499.99

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 52 x 226 (mm)
Wght: 762g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 125dB
Self Noise: 18dBA
Out Imp: 200Ω
Rec Load: 1.2kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 1.5mA, 150mA
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Halo shockmount, XLR-7 (M) cable, variable pattern PSU, flight case
OA: Metal pop screen, Litz wire microphone cable



Telefunken-Elektroakustik

Telefunken-Elektroakustik manufacture microphones ranging from replicas of historic vintage mics to their R-F-T series and dynamic models for live use. Their microphones are hand crafted in the USA.

HQ: www.telefunken-elektroakustik.com

AR-51 \$1895

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 44 x 241 (mm)
Wght: 765g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -

Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -



AK-47 MkII \$1895

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid
Dim: 44 x 241 (mm)
Wght: 765g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -

Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -



AR-70 (Stereo) \$2995

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 44 x 241 (mm)
Wght: 765g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -



C12 \$8495

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 41 x 254 (mm)
Wght: 567g
Freq: -
Out Sens: -
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -

Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, flight case, tube microphone cable, elastic shockmount, wooden box
OA: -



CU29 Copperhead \$1295

Polar: Cardioid
Dim: -
Wght: 690g
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -

SOS Review (September 2011)
www.soundonsound.com/sos/sep11/articles/telefunken-cu29.htm



U47 \$8495

Polar: Omnidirectional, cardioid
Dim: 57 x 248 (mm)
Wght: 624g
Freq: -
Out Sens: -
Max SPL: 138dB
Self Noise: 24dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box, flight case
OA: -



ELA M 251E \$8995

Polar: Omnidirectional, cardioid, figure-of-8
Dim: 51 x 216 (mm)
Wght: 960g
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: 138dB
Self Noise: 16dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -



ELA M 260 \$1495

Polar: Omnidirectional, cardioid, hypercardioid
Dim: -
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 14mV/Pa
Max SPL: 120dB
Self Noise: 19dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: PSU, tube microphone cable, elastic shockmount, wooden box
OA: -

SOS Review (August 2009)
www.soundonsound.com/sos/aug09/articles/telefunkenm260.htm



Wunder Audio

Wunder Audio started off repairing mixing consoles and building mic preamps in 1999. Today, they make a wide range of vintage-inspired microphones, including valve and solid-state models. They also now make their own mixing console, the Wunderbar.

USA: www.vintageking.com
HQ: www.wunderaudio.com



CM7
\$6350

Polar: Omnidirectional, cardioid
Dim: 63 x 240 (mm)
Wght: 800g
Freq: 20Hz - 15kHz
Out Sens: 2.5mV/Pa
Max SPL: 115dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: 40mA

Con via: Large Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Oak box, cable, shockmount, PSU
OA: Tweed flight case



CM7 GTS
\$3600 (K47 capsule)
\$3800 (M7 capsule)

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 63 x 240 (mm)
Wght: -
Freq: 20Hz - 15kHz
Out Sens: -
Max SPL: -

Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Oak box, cable, shockmount, PSU
OA: Tweed flight case



CM50
\$6995

Polar: Omnidirectional
Dim: 80 x 163 (mm)
Wght: 800g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 126dB
Self Noise: -
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: Large Tuchel

Pad: -
Filt Freq: -
Slope: -
SA: Yoke mount, cable, PSU
OA: Tweed flight case



CM67
\$3895

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: -
Wght: -
Freq: 20Hz - 16kHz
Out Sens: 15, 24, 16 mV/Pa
Max SPL: 125dB
Self Noise: 11dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU
Alt Pwr: -
SC: 1mA
Con via: 7-pin Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Oak box, cable, shockmount, PSU
OA: Tweed flight case



CM49
\$6495

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 80 x 163 (mm)
Wght: 800g
Freq: 20Hz - 16kHz
Out Sens: 7mV/Pa
Max SPL: 126dB
Self Noise: -
Out Imp: 50Ω
Rec Load: -
Pwr Type: PSU
Alt Pwr: -
SC: -
Con via: Large Tuchel
Pad: -
Filt Freq: -
Slope: -
SA: Yoke mount, cable, PSU
OA: Tweed flight case



CM12
\$6350

Polar: Omnidirectional, subcardioid, cardioid, supercardioid, hypercardioid, figure-of-8
Dim: 43 x 255 (mm)
Wght: 560g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 128dB
Self Noise: -
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: PSU

Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Swivel mount, oak box, PSU
OA: Tweed flight case



SOUND ON SOUND

The World's Best Recording Technology Magazine

MIX WITH THE BEST!



MAGAZINE

- More product coverage than any other music magazine.
- In-depth product testing.
- Software and hardware: we know the importance of both.
- The best musician, engineer and produce interviews you'll read anywhere.
- Tutorials and practical 'how to' workshops offering no-nonsense tips and techniques.
- A highly experienced editorial team, second to none in hands-on expertise.
- Since 1985 Sound On Sound has remained consistently at the forefront of developments in technology shaping the music production industry today.

TABLET

Sound On Sound's feature-rich tablet edition contains all the editorial content of the world-renowned print magazine, enhanced with audio and other interactive content.

- Zoom into selected screens and pictures.
- Navigate via overview, sidebar, contents page or just browse.
- Hear the 'before' and 'after' Mix Rescue tracks via the integral media player.
- Fully web-linked, with an active internet connection.
- Embedded Audio & Video content
- And much, much more!

WEBSITE

All the content of the monthly magazine with up-to-the-minute news, readers ads and the SOS forum.



www.twitter.com/sospublications



www.facebook.com/sospublications



www.youtube.com/soundonsoundvideo



www.soundonsound.com/forum

WWW.SOUNDONSOUND.COM/SUBS

SPECIALISED MICROPHONES

Some microphones fall outside of the common categories, examples being measurement microphones, contact microphones and, more recently, those with digital outputs. Other specialised products adopt familiar microphone technologies and then package them for a specific application, such as mics designed to be clipped to drum rims. Recent years have seen great advances in the performance of headset mics and models optimised for semi-permanent mounting onto acoustic instruments. If it doesn't fit into one of the other categories, this is where to look.



AKG

Founded in Vienna in 1947, AKG Acoustics are a manufacturer of microphones, headphones, wireless audio systems and related accessories for professional and consumer markets. Some of their vintage models, like the C12, are both rare and desirable, while their current models, including the C414, can be found in studios around the world.

HQ: www.akg.com

C519M

\$249

Application: Suitable for a range of instruments including wind instruments, drums and piano

Polar: Cardioid

Dim: 47 x 213 (mm)

Wght: 85g

Freq: 60Hz - 20kHz

Out Sens: 5mV/Pa

Max SPL: 130dB

Self Noise: 31dBA

Out Imp: <200Ω

Rec Load: >2kΩ

Pwr Type: P9-52

Alt

Pwr: -

SC: <2mA

Con via: XLR-3 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Instrument mounting clip, bag, windscreen

OA: Clarinet clamp



C518M

\$249

Application: Drums and percussion

Polar: Cardioid

Dim: 47 x 200 (mm)

Wght: 110g

Freq: 60Hz - 20kHz

Out Sens: 5mV/Pa

Max SPL: 130dB

Self Noise: 31dBA

Out Imp: <200Ω

Rec Load: >2kΩ

Pwr Type: P48

Alt Pwr: -

SC: <2mA

Con via: XLR-3 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Drum bracket, protective bag, windscreen, mounting adaptor

OA: Battery power supply, phantom power adaptor



C519M \$249

Application: Suitable for a range of instruments including wind instruments, drums and piano
Polar: Cardioid
Dim: 47 x 213 (mm)
Wght: 85g
Freq: 60Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 130dB
Self Noise: 31dBA
Out Imp: <200Ω
Rec Load: >2kΩ
Pwr Type: P9-52

Alt Pwr: -
SC: <2mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Instrument mounting clip, bag, windscreen
OA: Clarinet clamp



C544L \$139

Application: Suitable for a range of instruments including wind instruments, drums and piano
Polar: Cardioid
Dim: 130 x 130 (mm)
Wght: 30g
Freq: 20Hz - 20kHz
Out Sens: 40mV/Pa
Max SPL: 126dB
Self Noise: 22dBA
Out Imp: <200Ω
Rec Load: >2kΩ
Pwr Type: P9-52

Alt Pwr: Battery via optional adaptor
SC: 2mA
Con via: Mini XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Moisture shield, windscreen
OA: Battery power supply, phantom power adaptor



Audix

Founded in 1984 in California, Audix are a well-respected manufacturer of microphones for stage, studio and specialised purposes. Their dynamic mics, in particular, are very popular with engineers.

HQ: www.audixusa.com

FireBall V \$190

Application: Harmonica
Polar: Cardioid
Dim: 54 x 100 (mm)
Wght: 140g
Freq: 50Hz - 16kHz
Out Sens: 1.5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Heavy-duty press-fit microphone clip, carry pouch
OA: External foam windscreen, spring-loaded rim-mount clamp, tension rod microphone clamp, 20-inch XLR cable, wireless bodypack, high-quality low/high impedance transformer



D6 \$310

Application: Kick-drum microphone
Polar: Cardioid
Dim: 51 x 117 (mm)
Wght: 217g
Freq: 30Hz - 15kHz
Out Sens: 0.8mV/Pa
Max SPL: >144dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

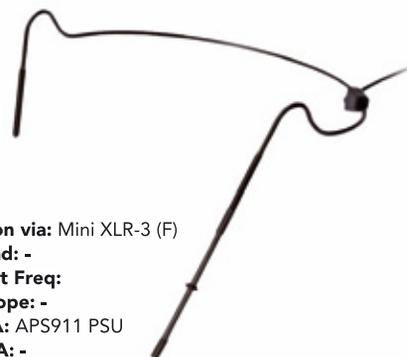
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Tension-fit heavy-duty microphone clip, carry pouch
OA: Tripod microphone stand, all-purpose percussion clamp, spring-loaded rim-mount clamp, adjustable kick-drum microphone stand, low-noise microphone cable



HT5P \$440

Application: Headset
Polar: Omnidirectional
Dim: -
Wght: 31g
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 140dB
Self Noise: 26dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: Mini XLR-3 (F)
Pad: -
Filt Freq: -
Slope: -
SA: APS911 PSU
OA: -



ADX10FLP \$275

Application: Flute mic
Polar: Cardioid
Dim: 25mm
Wght: 11g
Freq: 50Hz - 18kHz
Out Sens: 4.5mV/Pa
Max SPL: 120dB
Self Noise: 29dBA
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: AA Battery with APS911 P48 adapter

SC: -
Con via: Mini XLR-3 (F)
Pad: -
Filt Freq: -
Slope: -
SA: APS911 PSU, flute head-joint clip
OA: -



TM1 \$325

Application: Instrument mic
Polar: Omnidirectional
Dim: 150mm
Wght: 132g
Freq: 20Hz - 25kHz
Out Sens: 6mV/Pa
Max SPL: 130dB
Self Noise: 28dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Clip, pouch
OA: Threaded windscreen, calibrator adaptor



ADX20iP
\$195

Application: Mini instrument mic
Polar: Cardioid
Dim: 29mm
Wght: 48g
Freq: 40Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 135dB
Self Noise: 29dBA
Out Imp: 250Ω
Rec Load:
Pwr Type: P48
Alt Pwr: AA Battery

with APS911 P48 adapter
SC: -
Con via: XLR-3 (F)
Pad: -
Filt Freq: -
Slope: -
SA: APS910 P48 power adapter, gooseneck mount
OA: APS911 battery/P48 power adapter



MicroD
\$255

Application: Mini percussion mic
Polar: Hypercardioid
Dim: 30mm
Wght: 47g
Freq: 40Hz - 20kHz
Out Sens: 5.6mV/Pa
Max SPL: 140dB
Self Noise: 24dBA
Out Imp: 250Ω
Rec Load:
Pwr Type: P48
Alt Pwr:

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: APS910 P48 power adapter, DVICE rim mount
OA: -



MicroHP
\$255

Application: Mini instrument mic
Polar: Cardioid
Dim: 30mm
Wght: 47g
Freq: 40Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 140dB
Self Noise: 24dBA
Out Imp: 250Ω
Rec Load:
Pwr Type: P48
Alt Pwr:

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: APS910 PSU, DCLAMP mount
OA: -



f90
\$135

Application: Mini clip-on percussion mic
Polar: Cardioid
Dim: 147mm
Wght: 170g
Freq: 50Hz - 18kHz
Out Sens: 8.8mV/Pa
Max SPL: 135dB
Self Noise: 29dBA
Out Imp: 250Ω
Rec Load:
Pwr Type: P48
Alt Pwr:

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: APS910 PSU, rim mount clip
OA: -



Beyerdynamic

Beyerdynamic have been an industry leader in the design and manufacture of premium-grade microphones, headphones and wireless microphone systems since 1924. Their microphone range covers pretty much every type, including dynamic, capacitor and ribbon models.

USA: www.americanmusicsounds.com
HQ: www.beyerdynamic.com

TG D52D
\$159

Application: Drums
Polar: Hypercardioid
Dim: -
Wght: 140g
Freq: 40Hz - 20kHz
Out Sens: 1.3mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Soft case
OA: -



TG D57C
\$199

Application: Toms, snare
Polar: Cardioid
Dim: -
Wght: 145g
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P12-48
Alt Pwr: -
SC: 4.7mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Soft case
OA: Wind shield



TG D58C
\$199

Application: Toms, snare
Polar: Cardioid
Dim: -
Wght: 140g
Freq: 20Hz - 20kHz
Out Sens: 5mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P12-48
Alt Pwr: -
SC: 4.7mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Soft case
OA: Wind shield



TG D70D \$299

Application: Bass drum
Polar: Hypercardioid
Dim: 56 x 129 (mm)
Wght: 365g
Freq: 20Hz - 18kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 280Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, soft case
OA: Miniature stand



TG H54C \$199

Application: Headset
Polar: Cardioid
Dim: -
Wght: 39g
Freq: 40Hz - 17kHz
Out Sens: 11mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 800Ω
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using adaptor)

SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Wind shield, plastic case, microphone and accessories available in black or tan
OA: Phantom power adaptor



TG H55C \$199

Application: Headset
Polar: Omnidirectional
Dim: 5 x 13 (mm)
Wght: 24g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 118dB
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using adaptor)
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Wind shield, soft case, microphone and accessories available in black or tan
OA: Phantom power adaptor



TG H74C \$289

Application: Headset
Polar: Supercardioid
Dim: -
Wght: 32g
Freq: 40Hz - 20kHz
Out Sens: 3.2mV/Pa
Max SPL: 144dB
Self Noise: -
Out Imp: 650Ω
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using adaptor)
SC: -

Con via: Mini XLR-4 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wind shield, soft case, microphone and accessories available in black or tan
OA: Phantom power adaptor



TG H75C \$289

Application: Headset
Polar: Omnidirectional
Dim: -
Wght: 32g
Freq: 30Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 138dB
Self Noise: -
Out Imp: 650Ω
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using power supply)

SC: -
Con via: Mini XLR-4 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wind shield, microphone and accessories available in black or tan
OA: Phantom power supply



TG i52D \$179

Application: Brass instruments such as trumpets and trombones
Polar: Hypercardioid
Dim: -
Wght: 62g
Freq: 40Hz - 12kHz
Out Sens: 1.3mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: -

Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Soft case
OA: Wind shield



TG i56C \$199

Application: Acoustic instruments, particularly accordions, bandoneons and zithers
Polar: Cardioid
Dim: -
Wght: 40g
Freq: 30Hz - 20kHz
Out Sens: 12.4mV/Pa
Max SPL: 136dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 1.5V to 9V DC

Alt Pwr: P48 (using adaptor)
SC: -
Con via: Mini XLR-4 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Mounting clip, adhesive pads, soft case
OA: Mounting plate set, phantom power adaptor, miniature mixer, wind shield



TG i55C Helix \$199

Application: Stringed instruments
Polar: Omnidirectional
Dim: 5 x 13 (mm)
Wght: 9g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 118dB
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using adaptor)
SC: -

Con via: Mini XLR-4 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Flexible helix clip, soft case
OA: Phantom power adaptor, miniature mixer, wind shield



TG i57C
\$199

Application: Brass instruments such as saxophones, trumpets, trombones and horns
Polar: Cardioid
Dim: -
Wght: 64g
Freq: 30Hz - 20kHz
Out Sens: 12.4mV/Pa
Max SPL: 136dB
Self Noise: -
Out Imp: -
Rec Load: -

Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using adaptor)
SC: -
Con via: Mini XLR-4 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Soft case
OA: Phantom power adaptor, wind shield



TG L55C
\$199

Application: Lavalier microphone
Polar: Omnidirectional
Dim: 5 x 13 (mm)
Wght: 14g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: 118dB
Self Noise: -
Out Imp: 1000Ω
Rec Load: -
Pwr Type: 1.5V to 9V DC
Alt Pwr: P48 (using

optional CV18 adaptor)
SC: -
Con via: Mini-XLR (4-pin)
Pad: -
Filt Freq: -
Slope: -
SA: Lavalier clip, wind shield
OA: CV18 phantom power adaptor, lavalier clip



Blue Microphones

Blue Microphones, founded in 1995, design and produce an extensive line of award-winning microphones and recording tools for audio professionals, musicians and consumers. From Blue's flagship recording tool, the Bottle, to the enCORE line of professional live mics, Blue Microphones offer innovative design and top performance.

HQ: www.bluemic.com

Spark Digital
\$199.99

Application: iPad & USB-compatible mic
Polar: Cardioid
Dim: 45 x 197 (mm)
Wght: 567g
Freq: 26Hz - 20kHz
Out Sens: 29mV/Pa
Max SPL: 128dB
Self Noise: 10dBA
Out Imp: 50Ω
Rec Load: -
Pwr Type: USB or 30-pin connector

Alt Pwr: -
SC: 63mA
Con via: 30-pin dock connector or USB 2.0+
Filt Freq: -
SA: Desktop shockmount stand and two Y-cables for USB and 30-pin connection, headphone out
OA: Custom pop filter, studio shockmount



Canford Audio

Canford were founded in 1976 and are a British manufacturer and distributor of professional audio, video and broadcast products. The company operate on a mailorder basis via catalogue and the Internet and have a range of more than 15,000 products, with a vast range of microphones and accessories including cables, stands, wind shields, pop shields and clamps.

HQ: www.canford.co.uk

EM100
£24.70 (US price not available)

Application: Lavalier
Polar: Omnidirectional
Dim: 8 x 16 (mm)
Wght: 6g
Freq: 50Hz - 18kHz
Out Sens: 0.56mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: Battery
Alt Pwr: -

SC: -
Con via: 3.5mm 2 pole miniature jack plug
Pad: -
Filt Freq: -
Slope: -
SA: Battery, foam wind shield, tie clip holder
OA: -



LM1
£58.90 (US price not available)

Application: Lavalier
Polar: Omnidirectional
Dim: 6 x 15 (mm)
Wght: -
Freq: 100Hz - 10kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 2.5kΩ
Rec Load: -
Pwr Type: -



Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Cable-mount crocodile clips
OA: Cable clips, pack of 5 replacement pop shields, electret mic adaptors, inline preamps

LM3
£49.00 (US price not available)

Application: Lavalier
Polar: Omnidirectional
Dim: 6 x 15 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 2.5kΩ
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Cable-mount crocodile clips, detachable pop screen
OA: Cable clips, pack of 5 replacement pop shields, inline preamps



EM110

£29.98 (US price not available)

Application: Lavalier
Polar: Omnidirectional
Dim: 8 x 16 (mm)
Wght: -
Freq: 50Hz - 18kHz
Out Sens: 0.56mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: Battery
Alt Pwr: -

SC: -
Con via: 3.5mm 2 pole miniature jack plug
Pad: -
Filt Freq: -
Slope: -
SA: Battery, foam wind shield, tie clip holder, plastic storage box, 1m cable from microphone to battery, 5m cable from battery
OA: -



TCM141

£12.10 (US price not available)

Application: Lavalier
Polar: Omnidirectional
Dim: 8 x 16 (mm)
Wght: 6g
Freq: 30Hz - 18kHz
Out Sens: 0.56mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: Battery
Alt Pwr: -
SC: -

Con via: 3.5mm 2 pole miniature jack plug
Pad: -
Filt Freq: -
Slope: -
SA: Battery, foam wind shield, tie clip holder, adaptor to 2 pole 6.35mm jack plug, 1m cable from microphone to battery, 0.7m cable from battery to 3.5mm 2 pole right angle jack plug
OA: Alternative wind shields



DPA

DPA Microphones are a leading manufacturer of high-quality condenser microphones for studio, broadcast, theatre, film and sound reinforcement environments. All DPA microphones and components are manufactured at the company's purpose-built factory in Denmark.

HQ: www.dpamicrophones.com

4060

\$519.95

Application: Acoustic instruments, studio, broadcast, theatre
Polar: Omnidirectional
Dim: 5 x 13 (mm)
Wght: 8g
Freq: Soft-boost grid: 20Hz - 20kHz, 3dB soft boost at 8-20 kHz. High-boost grid: 20Hz - 20kHz, 10dB boost at 12kHz
Out Sens: 20mV/Pa
Max SPL: 134dB
Self Noise: 23dBA

Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Two grids
OA: Windscreens, clips, holders, extension cables, adaptors, power supplies
SOS Review (March 1998)
www.soundonsound.com/sos/mar98/articles/danish.html



4066

\$699.95

Application: Headset
Polar: Omnidirectional
Dim: -
Wght: 14g
Freq: Soft-boost grid: 20Hz - 20kHz, 3dB soft boost at 8-20 kHz. High-boost grid: 20Hz - 20kHz, 10dB boost at 12kHz
Out Sens: 6mV/Pa
Max SPL: 144dB
Self Noise: 26dBA

Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Windscreens, two grids (high and soft), cable
OA: Extension cables, power supplies



4071

\$449.95

Application: Lavalier
Polar: Omnidirectional
Dim: 5 x 17 (mm)
Wght: 9g
Freq: 100Hz - 15kHz with typical 5dB soft boost at 4-6 kHz
Out Sens: 6mV/Pa
Max SPL: 144dB
Self Noise: 26dBA
Out Imp: 30-40Ω

Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Cable
OA: Windscreens, clips, holders, extension cables, adaptors, power supplies, windjammer

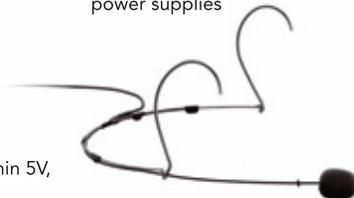


4088

\$659.99

Application: Headset
Polar: Omnidirectional
Dim: -
Wght: 14g
Freq: 100Hz - 20kHz with 4-6dB soft boost at 15kHz
Out Sens: 6mV/Pa
Max SPL: 144dB
Self Noise: 26dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V,

max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Pop screens, cable
OA: Pop screens, extension cables, power supplies



4099B

\$599.95

Application: Double bass
Polar: Supercardioid
Dim: 45mm long
Wght: 33g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V,

max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Clip, windscreen, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



4099C
\$599.95

Application: Cello
Polar: Supercardioid
Dim: 45mm long
Wght: 33g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V,

max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



4099D
\$599.95

Application: Drums and percussion
Polar: Supercardioid
Dim: 45mm long
Wght: -
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 2mV/Pa
Max SPL: 152dB
Self Noise: 28dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V,

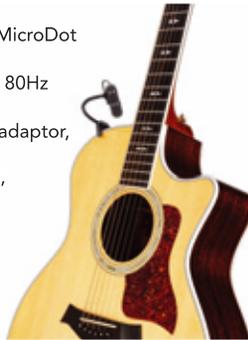
max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



4099G
\$599.95

Application: Guitar, dobro
Polar: Supercardioid
Dim: 45mm long
Wght: 36g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems

min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: 80Hz
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



4099P (stereo)
\$1,198.95

Application: Piano stereo system
Polar: Supercardioid
Dim: 45mm long
Wght: 46g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems min 5V,

max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Magnet mounts, adaptors, cables
OA: Clips, mounts, holders, extension cables, adaptors



4099S
\$599.95

Application: Saxophone, clarinet
Polar: Supercardioid
Dim: -
Wght: -
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -



Pwr Type: P48
Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: 80Hz
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors

4099T
\$599.95

Application: Trumpet, brass
Polar: Supercardioid
Dim: 45mm long
Wght: 31g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 2mV/Pa
Max SPL: 152dB
Self Noise: 28dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: Wireless systems

min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: 80Hz
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



4099U
\$599.95

Application: Any instrument
Polar: Supercardioid
Dim: 45mm long
Wght: 41g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48



Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: -
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors

4099V
\$599.95

Application: Violin, mandolin
Polar: Supercardioid
Dim: 45mm long
Wght: 33g
Freq: 80Hz - 15kHz with 2dB soft boost at 10-12 kHz
Out Sens: 6mV/Pa
Max SPL: 142dB
Self Noise: 23dBA
Out Imp: 30-40Ω
Rec Load: -
Pwr Type: P48

Alt Pwr: Wireless systems min 5V, max 50V through DPA adaptor
SC: -
Con via: MicroDot
Pad: -
Filt Freq: 80Hz
Slope: -
SA: Clip, adaptor, cable
OA: Clips, mounts, holders, extension cables, adaptors



Specification Key — Application: Intended Use **Polar:** Polar Pattern **Dim:** Dimensions (width & length) **Wght:** Weight **Freq:** Frequency Response **Out Sens:** Output Sensitivity **Out Imp:** Output Impedance **RL:** Recommended Load **Pwr Type:** Powering Type **Alt Pwr:** Powering Alternative **SC:** Supply Current **Con via:** Connection via **Filt Freq:** Filter Frequency **SA:** Supplied accessories **OA:** Optional accessories

5100

\$3,399.95

Application: Mobile 5.1 surround

Polar: Cardioid

Dim: 240 x 140 (mm)

Wght: 500g

Freq: L, C, R: 200Hz - 16kHz; LS, RS: 100Hz - 12kHz; LFE: 20Hz -



120Hz

Out Sens: L, C, R: 26mV/Pa; LS, RS: 28mV/Pa

Max SPL: 132dB

Self Noise: L, C, R: Typ. 18dBA (max. 21dBA); LS, RS: Typ. 20dBA (max. 23dBA)

Out Imp: 50Ω

Rec Load: -

Pwr Type: P48

Alt Pwr: -

SC: -

Con via: Lemo multipin

Pad: -

Filt Freq: -

Slope: -

SA: Cable, thread adaptor, outdoor cover

OA: Extension cables, windjammer, stands

4080

\$549.95

Application: Lavalier microphone

Polar: Cardioid

Dim: 10 x 30 (mm)

Wght: 15g

Freq: 250Hz - 17kHz ±2dB (4dB soft boost at 4-6kHz)

Out Sens: 20mV/Pa

Max SPL: 134dB

Self Noise: 23dBA

Out Imp: 30-40Ω

Rec Load: -

Pwr Type: P48

Alt Pwr: -

SC: -

Con via: MicroDot

Pad: -

Filt Freq: -

Slope: -

SA: Pop filters, clip, cable

OA: Various windscreens, clips, holders, extension cables, adaptors, power supplies



d:fine (cardioid)

\$629.95

Application: Headset

Polar: Cardioid

Dim: -

Wght: 9g

Freq: 100Hz - 20kHz with 3dB soft boost at 8-20 kHz

Out Sens: 6mV/Pa

Max SPL: 144dB

Self Noise: 28dBA

Out Imp: 30-40Ω

Rec Load: -

Pwr Type: P48

Alt Pwr: -



SC: -

Con via: MicroDot

Pad: -

Filt Freq: -

Slope: -

SA: Case, windscreen, capsule protection cap, colour-coded cable clips

OA: Power supplies, adaptors, cables with fixed connectors

d:fine (omni)

\$629.95

Application: Headset

Polar: Omnidirectional

Dim: -

Wght: 9g

Freq: 20Hz - 20kHz with 3dB soft boost at 8-15 kHz

Out Sens: 6mV/Pa

Max SPL: 144dB

Self Noise: 26dBA

Out Imp: 30-40Ω

Rec Load: -

Pwr Type: P48

Alt Pwr: -



SC: -

Con via: MicroDot

Pad: -

Filt Freq: -

Slope: -

SA: Case, capsule protection cap, colour-coded cable clips

OA: Power supplies, windscreens, adaptors, cables with fixed connectors

Earthworks

American company Earthworks started out making test and measurement microphones, and their current mics still follow the ethos of aiming to sound as neutral and transparent as possible. All of their products — including their studio monitors — have unusually high bandwidths.

HQ: www.earthworksaudio.com

DP30/C

\$649

Application: Close-miking toms and snare drums

Polar: Cardioid

Dim: 22 x 275 (mm)

Wght: 113g

Freq: 30Hz - 30kHz

Out Sens: 10mV/Pa

Max SPL: 145dB

Self Noise: 22dBA

Out Imp: 100Ω

Rec Load: 600Ω

Pwr Type: P48

Alt Pwr: -

SC: 10mA

Con via: XLR-3 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Protective case, foam teardrop windscreen

OA: Rim mount

SOS Review (July 2010)

www.soundonsound.com/sos/jul10/articles/earthworksdpsseries.htm



FW730

\$1,299

Application: Floor-standing choir microphone

Polar: Cardioid

Dim: 27 x 2185 (mm)

Wght: 900g

Freq: 30Hz - 30kHz

Out Sens: 10mV/Pa

Max SPL: 145dB

Self Noise: 22dBA

Out Imp: 100Ω

Rec Load: 600Ω

Pwr Type: P48

Alt Pwr: -

SC: 10mA



Con via: XLR-3 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Cast iron base

OA: Tripod base, foam teardrop windscreen, LevelPad switchable -15 or -30 dB

P30/C
\$649

Application: Stand-mounted choir microphone
Polar: Cardioid
Dim: 22 x 275 (mm)
Wght: 100g
Freq: 30Hz - 30kHz
Out Sens: 10mV/Pa
Max SPL: 145dB
Self Noise: 22dBA
Out Imp: 100Ω
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -

SC: 10mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clip, protective case
OA: Shockmount microphone clip, foam teardrop windscreen, LevelPad switchable -15 or -30 dB



PM40
\$2,999

Application: Piano microphone
Polar: Omnidirectional
Dim: -
Wght: -
Freq: 9Hz - 40kHz
Out Sens: 15mV/Pa
Max SPL: 148dB
Self Noise: 22dBA
Out Imp: -
Rec Load: 600Ω
Pwr Type: P48
Alt Pwr: -

SC: 10mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Carry case
OA: Leather pouch for electronics box, LevelPad switchable -15 or -30 dB



Electro-Voice

Electro-Voice (commonly referred to as EV) are a manufacturer of audio equipment, including microphones, amplifiers and loudspeakers. Electro-Voice market their products for use in small or large concert venues, broadcasting, houses of worship, and retail situations.

HQ: www.electrovoice.com

PL33
\$99

Application: Kick drum
Polar: Supercardioid
Dim: 59 x 142 (mm)
Wght: 364g
Freq: 20Hz - 10kHz
Out Sens: 0.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PL37
\$79

Application: Overhead instrument microphone
Polar: Cardioid
Dim: 29 x 163 (mm)
Wght: 176g
Freq: 50Hz - 16kHz
Out Sens: 7mV/Pa
Max SPL: 132dB
Self Noise: 25dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: P11-52
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PL35
\$79

Application: Various instruments
Polar: Supercardioid
Dim: 43 x 108 (mm)
Wght: 236g
Freq: 50Hz - 16kHz
Out Sens: 2.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Holophone

Holophone offer a diverse line of recording microphones for audio professionals to capture and record multi-channel surround sound. These include their H2-PRO 7.1 and 5.1, H4 SuperMINI, H3-D and PortaMic Pro models, all built to create realistic, discrete 5.1 and 7.1 recordings for broadcast, feature film, live events and other professional applications.

HQ: www.holophone.com

H2-5.1
\$4,995 (plus decoding software at \$725)

Application: Surround sound
Polar: Omnidirectional, cardioid, hemispherical, ear/sphere/dummy/head
Dim: 150 x 200 (mm)
Wght: 1.5kg
Freq: 20Hz - 20kHz (x7), 20Hz - 110Hz (x1)
Out Sens: 5mV/Pa
Max SPL: 142dB
Self Noise: -

Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M) x 6
Pad: -
Filt Freq: -
Slope: -
SA: Pelican case
OA: Foam windscreen, Rycote fuzzy windjammer, hand grip



d:facto™

STUDIO QUALITY SOUND ON STAGE

SET IT FREE



Wired or wireless? You decide!

With the DPA adapters you can connect your DPA d:facto II to all major wireless systems



H2-Pro 7.1

\$6,000 (plus decoding software at \$725)

Application: Surround sound
Polar: Omnidirectional, cardioid, hemispherical, ear/sphere/dummy/head
Dim: 150 x 200 (mm)
Wght: 1.5kg
Freq: 20Hz - 20kHz (x7), 20Hz - 110Hz (x1)
Out Sens: 5mV/Pa
Max SPL: 142dB
Self Noise: -

Out Imp: -
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M) x 8
Pad: -
Filt Freq: -
Slope: -
SA: Pelican case
OA: Foam windscreen, Rycote fuzzy windjammer, hand grip



H3-D

\$1,995 (plus decoding software at \$725)

Application: Surround sound
Polar: Omnidirectional, cardioid, hemispherical, ear/sphere/dummy/head
Dim: 150 x 200 (mm)
Wght: 1.5kg
Freq: 20Hz - 20kHz (x5), 20Hz - 100Hz (x1)
Out Sens: -
Max SPL: 130dB
Self Noise: -
Out Imp: -

Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M) x 6
Pad: -
Filt Freq: -
Slope: -
SA: Pelican case
OA: Foam windscreen, Rycote fuzzy windjammer, hand grip



PortaMic Pro

\$999 (plus decoding software at \$725)

Application: Surround sound
Polar: Omnidirectional, cardioid, hemispherical, ear/sphere/dummy/head
Dim: 50 x 125 (mm)
Wght: 400g
Freq: 20Hz - 20kHz (x5), 20Hz - 100Hz (x1)
Out Sens: 18mV/Pa
Max SPL: 130dB
Self Noise: -

Out Imp: -
Rec Load: -
Pwr Type: Battery
Alt Pwr: 12V DC
SC: -
Con via: StereoMINI / TA-6
Pad: -15dB
Filt Freq: -
Slope: -
SA: StereoMINI cable, 9V battery
OA: Foam windscreen, Rycote fuzzy windjammer, XLR balanced cable



H4 SuperMINI

\$2,495 (plus decoding software at \$725)

Application: Surround sound
Polar: Omnidirectional, cardioid, hemispherical, ear/sphere/dummy/head
Dim: 500 x 200 (mm)
Wght: 800g
Freq: 20Hz - 20kHz (x5), 20Hz - 100Hz (x1)
Out Sens: 18mV/Pa
Max SPL: 130dB
Self Noise: -
Out Imp: -

Rec Load: -
Pwr Type: Battery
Alt Pwr: 5V DC
SC: -
Con via: StereoMINI / TA-6
Pad: -12dB
Filt Freq: -
Slope: -
SA: Pelican case, StereoMINI cable, 4 x AA batteries, 5V DC power adaptor
OA: Foam windscreen, Rycote fuzzy windjammer, XLR balanced cable



JTS

JTS Professional, founded in 1982, are a Taiwan-based manufacturer of professional wired and wireless microphones, conference and tour-guide systems, headphones and earphones. JTS have official distributors in over 70 countries, and are also an OEM supplier of tailor-made products.

HQ: www.jtsusa.us

CM-825iF

\$199.95 MSRP

Application: Earhook
Polar: Omnidirectional
Dim: 4 x 11 (mm)
Wght: 9g
Freq: 50Hz - 18kHz
Out Sens: 22.4mV/Pa
Max SPL: 130dB
Self Noise: 26dBA
Out Imp: 1.2kΩ
Rec Load: >5kΩ
Pwr Type: P3-5
Alt Pwr: -
SC: <0.05mA

Con via: Mini XLR-4
Pad: -
Filt Freq: -
Slope: -
SA: Detachable cable, windscreen, bag, clip
OA: Cables with different connectors to match wireless systems



CX-500

\$119.95 MSRP

Application: Stringed instruments
Polar: Omnidirectional
Dim: 6 x 13 (mm)
Wght: 7g
Freq: 20Hz - 20kHz
Out Sens: 12.5mV/Pa
Max SPL: 130dB
Self Noise: 31dBA
Out Imp: 1.5kΩ
Rec Load: >5kΩ
Pwr Type: P1-5
Alt Pwr: -

SC: <0.05mA
Con via: Mini XLR-4 from mic, XLR-3 (M) from adaptor
Pad: -10dB
Filt Freq: 100Hz -6dB, 400Hz -4dB
Slope: -
SA: Windscreen, string hanger, holder, phantom power adaptor
OA: -



CX-508

\$119.95 MSRP

Application: Wind instruments
Polar: Cardioid
Dim: 42 x 202 (mm)
Wght: 170g
Freq: 50Hz - 18kHz
Out Sens: 6.3mV/Pa
Max SPL: 130dB
Self Noise: 31dBA
Out Imp: 220kΩ
Rec Load: >2kΩ
Pwr Type: P9-52
Alt Pwr: -

SC: <3mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, storage case
OA: -



Karma

Karma Audio are located in Cupertino, CA, and design, manufacture, and distribute a full range of professional recording microphones. Karma Audio's product philosophy is to provide distinctive, affordable and high-quality microphones that enable a new generation of recording engineers to produce music. The company were founded in 2001.

HQ: www.karmamics.com

K-BDM

\$39.99

Application: Bass drum
Polar: Supercardioid
Dim: 50 x 145 (mm)
Wght: 170g
Freq: 50Hz - 14kHz
Out Sens: 1.2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, carry case
OA: -



K-TDM

\$39.99

Application: Tom, snare
Polar: Supercardioid
Dim: 36 x 135 (mm)
Wght: 130g
Freq: 50Hz - 14kHz
Out Sens: 1.5mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Microphone clamp, carry case
OA: -



LD Systems

LD Systems is a brand name of the Adam Hall Group, associated with a wide range of value-for-money audio products over the last decade. They offer a range of Chinese-sourced microphones, with German assembly and quality control, incorporating both moving-coil and capacitor models for stage and studio.

HQ: www.ld-systems.com

D1007

€92 (US price not available)

Application: Bass
Polar: Supercardioid
Dim: 58 x 140 (mm)
Wght: 350g
Freq: -
Out Sens: 0.6mV/Pa
Max SPL: 170dB
Self Noise: -
Out Imp: 300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



D1008

€59 (US price not available)

Application: Snare drum
Polar: Supercardioid
Dim: 43 x 123 (mm)
Wght: 185g
Freq: 50Hz - 16kHz
Out Sens: 1.9mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 300Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



D1009

€59 (US price not available)

Application: Overhead & percussion
Polar: Supercardioid
Dim: 29 x 238 (mm)
Wght: 280g
Freq: 50Hz - 20kHz
Out Sens: 5.6mV/Pa
Max SPL: 140dB
Self Noise: -
Out Imp: 200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: 2mA
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



MXL

The microphone division of Marshall Electronics (not the similarly named guitar-amp makers), MXL started off producing low-cost studio capacitor mics, but have since branched out into ribbon mics and models designed for the stage.

HQ: www.mxlmics.com

AC-400 \$79.95

Application: Conference
Polar pattern: -
Dim: 279.4 x 76.2 mm
Wght: 453.6g
Freq: 40Hz - 16kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Alt: -
SC: -
Con via: USB
Filt Freq: -
SA: USB cable, windscreen
OA: AC-404



A-55 Kicker \$99.95

Application: Kick drum
Polar: Cardioid
Dim: 60 x 130 (mm)
Wght: 540g
Freq: 30Hz - 15kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



MicW

MicW are a professional recording microphone brand, known for producing clean-sounding microphones. With great options for instrument and voice recording, MicW strive to develop products that faithfully reproduce sound and transmit the voice cleanly.

HQ: www.mic-w.com

i266 \$179

Application: iPhone/iPod Touch
Polar: Cardioid
Dim: 18 x 55 (mm)
Wght: 16g
Freq: 20Hz - 20kHz
Out Sens: 10mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 2.2kΩ
Rec Load: -
Pwr Type: Plug-in power
Alt Pwr: -
SC: -
Con via: 3.5mm 4-pole headset interface
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Windscreen, clip, 2m extension cable, split cable, aluminium tube, windjammer



i436 \$179

Application: iPhone/iPod Touch
Polar: Omnidirectional
Dim: 10 x 50 (mm)
Wght: 8g
Freq: 20Hz - 20kHz
Out Sens: 6.3mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 2.2kΩ
Rec Load: -
Pwr Type: Plug-in power
Alt Pwr: -

SC: -
Con via: 3.5mm 4-pole headset interface
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Windscreen, clip, 2m extension cable, split cable, aluminium tube, windjammer



i456 \$199

Application: iPhone/iPod Touch
Polar: Omnidirectional
Dim: 10 x 55 (mm)
Wght: 8g
Freq: 20Hz - 20kHz
Out Sens: 3.16mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 2.2kΩ
Rec Load: -
Pwr Type: Plug-in power
Alt Pwr: -

SC: -
Con via: 3.5mm 4-pole headset interface
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: Windscreen, clip, 2m extension cable, split cable, aluminium tube, windjammer



iShotgun \$299 MSRP

Application: Shotgun
Polar: Supercardioid
Dim: 136mm
Wght: 20g
Freq: 100Hz - 18kHz
Out Sens: 8mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 2.2kΩ
Rec Load: -

Pwr Type: Plug-in power capability
Alt Pwr: -
SC: -
Con via: 3.5mm 4-Pole headset
Filt Freq: -
SA: split adaptor, camera shockmount, windscreen, mini boom, 3m extension cable, 0.2m adaptor cable to DSLR camera
OA: -



Miktek

Miktek produce precision microphones, which are handmade in Nashville, USA. The company are inspired by iconic mics of the past, and develop capsules and unique circuits to capture sound. Using the very latest in audio technology, Miktek's designs are approved by some of the world's most acclaimed sound engineers.

HQ: www.miktekaudio.com

PM10 \$159

Application: Snare, toms
Polar: Supercardioid
Dim: 57 x 140 (mm)
Wght: 300g
Freq: 20Hz - 19kHz
Out Sens: 1.9mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 300Ω
Rec Load: 300Ω
Pwr Type: -
Alt Pwr: -

SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip
OA: Drum clip



PM11 \$249

Application: Kick drum
Polar: Subcardioid
Dim: 59 x 145 (mm)
Wght: 300g
Freq: 20Hz - 13kHz
Out Sens: 1.4mV/Pa
Max SPL: 170dB
Self Noise: -
Out Imp: 300Ω
Rec Load: 300Ω
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip
OA: -



PMD4 \$699

Application: Kick drum
Polar: Supercardioid
Dim: -
Wght: -
Freq: 20Hz - 19kHz
Out Sens: 1.4mV/Pa
Max SPL: 170dB
Self Noise: -
Out Imp: 300Ω
Rec Load: 300Ω

Pwr Type: -
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Protective case, microphone clip, aluminium flight case
OA: Drum clip



Peavey

Peavey are one of the largest independently owned suppliers of musical instruments and professional sound equipment in the world. Established by Hartley Peavey in 1965, Peavey hold 130 patents in musical instrument design and audio technology. Their products can be found in government buildings, theme parks, airports, stadiums and more.

HQ: www.peavey.com

PM 18s \$129

Application: Podium
Polar: Cardioid
Dim: 13 x 460 (mm)
Wght: 220g
Freq: 50Hz - 20kHz
Out Sens: 11.2mV/Pa
Max SPL: 132dB
Self Noise: -
Out Imp: 250Ω
Rec Load: -
Pwr Type: P9-52
Alt Pwr: -
SC: 3mA

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen, mounting bracket
OA: -



»

Prodipe

French company Prodipe are known for making monitors with ribbon tweeters, as well as manufacturing a wide range of low-cost microphones for stage and studio use.

HQ: www.prodipe.com

ST4

\$229 (set of 4)

Application: Snare drum, kick drum, overhead

Polar: Cardioid

Dim: -

Wght: -

Freq: 80Hz - 12kHz (SD), 30Hz - 12kHz (KD), 30Hz - 20kHz (A1)

Out Sens: 1.9mV/Pa (SD), 0.6mV/Pa (KD), 15.8mV/Pa (overhead)

Max SPL: 130dB



Self Noise: <22dBA

Out Imp: 250Ω (SD), 200Ω (KD), 100Ω (overhead)

Rec Load: >1kΩ

Pwr Type: P48

Alt Pwr: -

SC: -

Con via: -

Pad: -

Filt Freq: 100kHz

Slope: 12dB/Oct

SA: Flight case, clamps

OA: -

ST8

\$349 (set of 8)

Application: Snare drum, kick drum, overhead

Polar: Cardioid

Dim: -

Wght: -

Freq: 80Hz - 12kHz (SD), 30Hz - 12kHz (KD), 30Hz - 20kHz (overhead)

Out Sens: 1.9mV/Pa (SD), 0.6mV/Pa (KD), 15.8mV/Pa (overhead)

Max SPL: 130dB

Self Noise: <22dBA

Out Imp: 250Ω (SD), 200Ω (KD), 100Ω (overhead)

Rec Load: >1kΩ

Pwr Type: P48

Alt Pwr: -

SC: -

Con via: -

Pad: -

Filt Freq: 100kHz

Slope: 12dB/Oct

SA: Flight case, clamps

OA: -



TT1 Pro Instruments

\$49

Application: Snare drum, kick drum, overhead

Polar: Cardioid

Dim: 48 x 185 (mm)

Wght: -

Freq: 50Hz - 15kHz

Out Sens: 3.5mV/Pa

Max SPL: -

Self Noise: -

Out Imp: 600Ω

Rec Load: -

Pwr Type: -

Alt Pwr: -

SC: -

Con via: -

Pad: -

Filt Freq: -

Slope: -

SA: Clamp, bag

OA: -



Red5 Audio

Red5 Audio, formed in 2001, are a small Scottish company who manufacture microphones for both the professional and home enthusiast markets, and aim to provide excellent customer service. They also make a range of mic accessories, including shockmounts and pop shields.

HQ: www.red5audio.com

RVK7

£159 (US price not available)

Application: Drum kit

Polar: Cardioid

Dim: -

Wght: 320g (RVD9 snare/toms), 490g (RVD1 kick), 150g (RV4 overhead)

Freq: 50Hz - 16kHz

(RVD9), 40Hz - 10kHz (RVD1), 40Hz - 18kHz (RV4)

Out Sens: 1.9mV/Pa (RVD9), 1.2mV/Pa (RVD1), 5.6mV/Pa (RV4)

Max SPL: 136dB

Self Noise: 75dBA (RV4)

Out Imp: 250Ω (RVD9 & RVD1), 200Ω (RV4)

Rec Load: -

Pwr Type: P9-52

Alt Pwr: -

SC: -

Con via: -

Pad: -

Filt Freq: -

Slope: -

SA: 1 x RVD1, 4 x RVD9, 2 x RV4, 4 x snare/tom mounting brackets, 2 x RV4 stand clips, 2 x RV4 foam wind shields, locking flight case

OA: -

SOS Review (January 2004)

www.soundonsound.com/sos/jan04/articles/red5.htm

RV85

£37 (US price not available)

Application: Overhead

Polar: Cardioid

Dim: 14 x 37 (mm)

Wght: 25g

Freq: 50Hz - 16kHz

Out Sens: 14mV/Pa

Max SPL: -

Self Noise: -

Out Imp: 200Ω

Rec Load: -

Pwr Type: P9-52

Alt Pwr: -

SC: -

Con via: XLR-3 (M)

Pad: -

Filt Freq: -

Slope: -

SA: Integrated 6m cable, mini-XLR to XLR adaptor

OA: -



RØDE

Rode are based in Sydney, Australia, where all their microphones are designed, and where the majority of their manufacturing takes place. They make all kinds of mics, from valve and solid-state condensers to lapel and video microphones.

HQ: www.rodemic.com

HS1 \$299

Application: Headset
Polar: Omnidirectional
Dim: 200 x 180 (mm)
Wght: 6.5g
Freq: 60Hz - 18kHz
Out Sens: 21.1mV/Pa
Max SPL: 110dB
Self Noise: 25dBA
Out Imp: 3kΩ
Rec Load: -
Pwr Type: Plug-in power (2-5 V)
Alt Pwr: -
SC: -

Con via: MiCon (proprietary)
Pad: -
Filt Freq: -
Slope: -
SA: Weatherproof case, pop filter, mini-furry, cable management clip, adjustment tools, Kevlar-reinforced cable, 5 year warranty
OA: MiCon connector series, 3m cable, available in pink



VideoMic \$169

Application: Video
Polar: Supercardioid
Dim: 102 x 250 (mm)
Wght: 176g
Freq: 40Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 134dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: 9V battery
Alt Pwr: -
SC: -

Con via: 3.5mm stereo
Pad: -10, -20 dB
Filt Freq: 80Hz
Slope: -
SA: Wind shield, 10 year warranty
OA: DeadCat, pistol grip, boompoles



Lavalier \$249

Application: Lavalier
Polar: Omnidirectional
Dim: 4.5 x 12 (mm)
Wght: 1g
Freq: 60Hz - 18kHz
Out Sens: 21.1mV/Pa
Max SPL: 110dB
Self Noise: 25dBA
Out Imp: 3kΩ
Rec Load: -
Pwr Type: Plug-in power (2-5 V)
Alt Pwr: -

SC: -
Con via: MiCon (proprietary)
Pad: -
Filt Freq: -
Slope: -
SA: Weatherproof case, pop filter, mini-furry, cable management clip, adjustment tools, Kevlar-reinforced cable, 5 year warranty
OA: MiCon connector series, 3m cable



PinMic \$249

Application: Lavalier
Polar: Omnidirectional
Dim: 33 x 16 (mm)
Wght: 10g
Freq: 60Hz - 18kHz
Out Sens: 21.1mV/Pa
Max SPL: 110dB
Self Noise: 25dBA
Out Imp: 3kΩ
Rec Load: -
Pwr Type: Plug-in power (2-5 V)
Alt Pwr: -
SC: -

Con via: MiCon (proprietary)
Pad: -
Filt Freq: -
Slope: -
SA: Weatherproof case, pop filter, mini-furry, cable management clip, adjustment tools, Kevlar-reinforced cable, 5 year warranty
OA: MiCon connector series, 3m cable



iXY \$199

Application: iOS microphone
Polar: X-Y Stereo Cardioid
Dim: 46 x 55 x 40 (mm)
Wght: 40g
Freq: 20Hz - 20kHz
Out Sens: 7.9mV/PA
Max SPL: 120dB
Self Noise: 18.8dBA
Out Imp: -
Rec Load: -
Pwr Type: Powered by iOS device
Alt Pwr: -
SC: -

Con via: Apple 30-pin connection
Filt Freq: 70Hz
SA: Storage pod, windshield, 12 month warranty
OA: iClamp mount, DeadKitten furry



Stereo VideoMic \$249

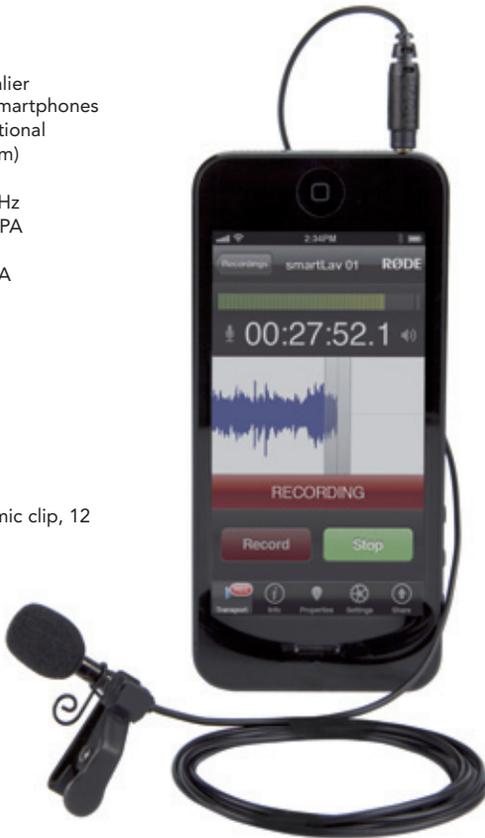
Application: Video
Polar: Cardioid
Dim: 102 x 170 (mm)
Wght: 288g
Freq: 40Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 134dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: 9V battery
Alt Pwr: -
SC: -

Con via: 3.5mm stereo
Pad: -10dB
Filt Freq: 80Hz
Slope: -
SA: DeadKitten furry
OA: Pistol grip, boompoles, 10 year warranty



SmartLav
\$60

Application: Lavalier microphone for smartphones
Polar: Omnidirectional
Dim: 4.5 x 4.5 (mm)
Wght: 6g
Freq: 20Hz – 20kHz
Out Sens: 25mV/PA
Max SPL: 100dB
Self Noise: 43dBA
Out Imp: -
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: TRRS
Pad: -
Filt Freq: -
Slope: -
SA: Windshield, mic clip, 12 month warranty
OA: Vampire clip, Furry (MiniFur-Lav)



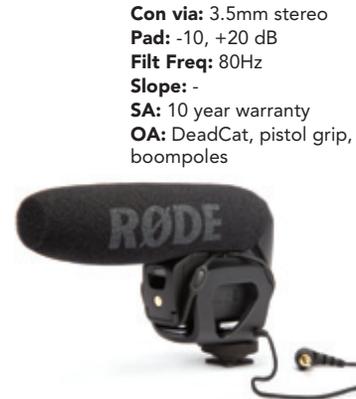
Stereo VideoMic Pro
\$299

Application: Stereo on-camera mic
Polar: X-Y Stereo Cardioid
Dim: 130 x 66 x 108 (mm)
Wght: 115g
Freq: 40Hz – 20kHz
Out Sens: 12.5mV/Pa
Max SPL: 134dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: 9V battery
Alt Pwr: -
SC: -
Con via: 3.5mm stereo minijack
Pad: -
Filt Freq: 75Hz (selectable)
Slope: -
SA: 10 year warranty
OA: DeadKitten, Pistol Grip (PG1)



VideoMic Pro
\$229

Application: Video
Polar: Supercardioid
Dim: 95 x 150 (mm)
Wght: 85g
Freq: 40Hz - 20kHz
Out Sens: 12.6mV/Pa
Max SPL: 134dB
Self Noise: 20dBA
Out Imp: 200Ω
Rec Load: -
Pwr Type: 9V battery
Alt Pwr: -
SC: -



Schertler

Schertler, founded in the early 1980s by Stephan Schertler, produce acoustic transducers and acoustic amplifiers, and focus on total fidelity in the reproduction of the sound of acoustic stringed instruments.

USA: www.eastmanguitars.com
HQ: www.schertler.com

Basik
\$169

Application: -
Polar: -
Dim: -
Wght: 45g
Freq: 60Hz - 15kHz
Out Sens: -
Max SPL: -
Self Noise: -
Out Imp: 1kΩ
Rec Load: -
Pwr Type: P12
Alt Pwr: -
SC: -

Con via: Mono 1/4-inch jack
Pad: -
Filt Freq: -
Slope: -
SA: Phantom supply, adhesive putty, soft case
OA: 48V to 10V phantom power adaptor



A-DYN
\$1,599.99

Application: Instrument pickup
Polar: -
Dim: -
Wght: 55g
Freq: 20Hz - 18kHz
Out Sens: 13mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 440Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Cable clip for double-bass, cello and violin, adhesive putty, wood box
OA: Preamplifier (A-PRE), preamp holder



Schoeps

Founded in 1948, Schoeps specialise in making small-diaphragm condensers. They also manufacture the Colette range of modular mics, as well as shotgun models and multi-microphone stereo and surround recording kits.

USA: www.reddingaudio.com
HQ: www.schoeps.de

MSTC 64g \$3,689

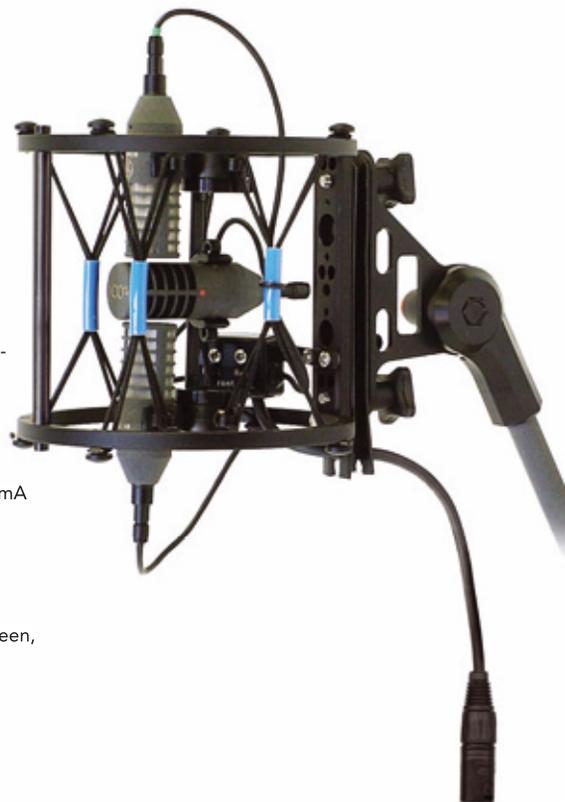
Application: Surround recordings
Polar: Cardioid
Dim: 185 x 65 (mm)
Wght: 230g
Freq: 40Hz - 20kHz
Out Sens: 13mV/Pa
Max SPL: 132dB
Self Noise: 14dBA
Out Imp: 90Ω
Rec Load: >600Ω
Pwr Type: P12, P48
Alt Pwr: -
SC: 2 x 4mA



Con via: XLR-5 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Wooden case, stand clamp with swivel
OA: Adaptor cable, windscreens

Double M/S Set \$9,999

Application: Surround recordings (outdoor)
Polar: Cardioid, figure-of-8
Dim: 150 x 310 (mm)
Wght: -
Freq: 40Hz - 16kHz
Out Sens: 13mV/Pa (cardioid), 10mV/Pa (figure-of-8)
Max SPL: 132dB
Self Noise: 14dBA (cardioid), 18dBA (figure-of-8)
Out Imp: 90Ω
Rec Load: >600Ω
Pwr Type: P12, P48
Alt Pwr: -
SC: 3 x 8mA (P12), 3 x 4mA (P48)
Con via: XLR-7 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Basket-type windscreens, windjammer, extension cable, adaptor cable
OA: -



Sennheiser

Longstanding German company Sennheiser make microphones for a wide range of purposes, including conferences, aviation, and music recording and performance. Their high-end MKH condensers employ some innovative capsule technology, and their wireless mic systems include vocal mics, headset mics and lavalier models.

HQ: www.sennheiserusa.com

e904 \$199.95

Application: Drums
Polar: Cardioid
Dim: 41 x 63 (mm)
Wght: 125g
Freq: 40Hz - 18kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 350Ω
Rec Load: 1kΩ
Pwr Type: -
Alt Pwr: -
SC: -



Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Pouch
OA: -

Sontronics

Sontronics are a British microphone brand founded in 2004 by mic designer and musician Trevor Coley. Their range covers small- and large-diaphragm condensers, valve and ribbon mics, as well as models made for specific purposes, like recording drums and electric guitar.

USA: www.proaudiodesign.com
HQ: www.sontronics.com

DM-1B \$449

Application: Kick drum, bass instruments
Polar: Cardioid
Dim: 72 x 144 (mm)
Wght: 829g
Freq: 20Hz - 20kHz
Out Sens: 6mV/Pa
Max SPL: 155dB
Self Noise: 14dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -15dB
Filt Freq: -
Slope: -
SA: Yoke-style mount, aluminium flight case, lifetime warranty
OA: Pro-quality cables with Neutrik XX connectors



SOS Review (December 2011)
www.soundonsound.com/sos/dec11/articles/sontronics-dm1.htm

DM-1S

\$179

Application: Snare drum
Polar: Cardioid
Dim: 22 x 91 (mm)
Wght: 86g
Freq: 30Hz - 20kHz
Out Sens: 8mV/Pa
Max SPL: 135dB
Self Noise: 14dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -15dB
Filt Freq: -
Slope: -
SA: Microphone clip, metal drum-mounting arm, lifetime warranty
OA: Pro-quality cables with Neutrik XX connectors

SOS Review (December 2011)
www.soundonsound.com/sos/dec11/articles/sontronics-dm.htm



DM-1T

\$179

Application: Toms
Polar: Cardioid
Dim: 22 x 91 (mm)
Wght: 86g
Freq: 30Hz - 20kHz
Out Sens: 8mV/Pa
Max SPL: 135dB
Self Noise: 14dBA
Out Imp: <200Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -

Con via: XLR-3 (M)
Pad: -15dB
Filt Freq: -
Slope: -
SA: Microphone clip, metal drum-mounting arm, lifetime warranty
OA: Pro-quality cables with Neutrik XX connectors

SOS Review (December 2011)
www.soundonsound.com/sos/dec11/articles/sontronics-dm.htm



Halo

\$205

Application: Guitar amps
Polar: Cardioid
Dim: 113 x 162 (mm)
Wght: 369g
Freq: 50Hz - 15kHz
Out Sens: 2mV/Pa
Max SPL: -
Self Noise: -
Out Imp: <600Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -

SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Nylon carry pouch, plectrums, lifetime warranty
OA: Pop shield, pro-quality cables with Neutrik XX connectors



Voice Technologies

Voice Technologies is a Switzerland-based manufacturer of high-end specialised microphones and earphones for broadcast, theatre, film, video, installation and conference applications. Their mics include miniature Lavalier models and a range of headset mics, for a wide range of applications.

USA: www.reddingaudio.com

HQ: www.vt-switzerland.com

VT100

\$449

Application: Lavalier
Polar: Cardioid
Dim: 5 x 21 (mm)
Wght: -
Freq: 100Hz - 15kHz
Out Sens: 6.3mV/Pa
Max SPL: 130dB
Self Noise: -
Out Imp: -
Rec Load: -

Pwr Type: 1.3 - 10 V
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Alligator clip, windscreen
OA: -



VT403

\$389

Application: Lavalier
Polar: Omnidirectional
Dim: 3 x 10 (mm)
Wght: -
Freq: 100Hz - 20kHz
Out Sens: 3.9mV/Pa
Max SPL: 136dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 1.5 - 9 V
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Alligator clip, windscreen, Dracula mount clip, tie tac clip, rubber body mount
OA: -



VT500
\$229

Application: Lavalier
Polar: Omnidirectional
Dim: 7 x 13 (mm)
Wght: -
Freq: 40Hz - 20kHz
Out Sens: 1.1mV/Pa
Max SPL: 118dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 0.9 - 20 V
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Alligator clip, windscreen, Dracula mount clip, tie tac clip, rubber body mount
OA: -



VT701H
\$269

Application: Headset
Polar: Omnidirectional
Dim: 3 x 8 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 17.7mV/Pa
Max SPL: 125dB
Self Noise: -
Out Imp: -
Rec Load: -

Pwr Type: 0.8 - 5 V
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen
OA: -



VT700H
\$349

Application: Lavalier
Polar: Omnidirectional
Dim: 4 x 9 (mm)
Wght: -
Freq: 50Hz - 18kHz
Out Sens: 22.3mV/Pa
Max SPL: 115dB
Self Noise: 27dBA
Out Imp: -

Rec Load: -
Pwr Type: 1.5 - 9 V
Alt Pwr: -
SC: -
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen
OA: -



VT506B
\$229

Application: Lavalier
Polar: Omnidirectional
Dim: 7 x 13 (mm)
Wght: -
Freq: 40Hz - 20kHz
Out Sens: 1mV/Pa
Max SPL: 118dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 0.9 - 20 V
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Alligator clip, windscreen, Dracula mount clip, tie tac clip, rubber body mount
OA: -



VT800H
\$459

Application: Headset
Polar: Cardioid
Dim: 10 x 25 (mm)
Wght: -
Freq: 50Hz - 18kHz
Out Sens: 2.2mV/Pa
Max SPL: 120dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 1.5 - 9 V
Alt Pwr: -
SC: -

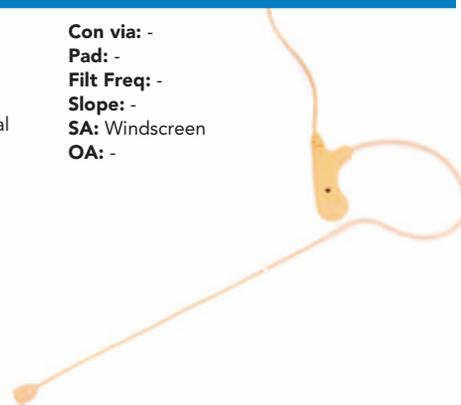
Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen
OA: -



VT910
\$169

Application: Headset
Polar: Omnidirectional
Dim: 5 x 7 (mm)
Wght: -
Freq: 20Hz - 20kHz
Out Sens: 7.9mV/Pa
Max SPL: 120dB
Self Noise: -
Out Imp: -
Rec Load: -
Pwr Type: 0.9 - 5 V
Alt Pwr: -
SC: -

Con via: -
Pad: -
Filt Freq: -
Slope: -
SA: Windscreen
OA: -



BOUNDARY MICROPHONES

Boundary mics are essentially microphones placed at a room boundary (or other large surface), such as a wall or ceiling, where their position means they are unable to receive reflections from the surface to which they are attached. A typical boundary mic comes fixed to a small metal plate, which in turn can be fixed to the boundary surface. Common applications include environments where reflections from a particular surface are to be avoided, such as a low ceiling above a drum kit or beneath the lid of a grand piano. Most boundary mics use omni capsules, which, in a boundary scenario, produce a hemispherical pickup pattern. Some cardioid models are also available.



Crown Audio

Founded in 1947, Crown are one of the world's longest-established audio equipment manufacturers and have a reputation for quality and reliability. They began making their Pressure Zone (boundary) microphones in 1980 and have a comprehensive range and a history of commitment to development in this field.

USA: www.ake.com
 HQ: www.crownaudio.com

PCC-130 \$279

Polar: Cardioid
Dim: 640 x 980 (mm)
Wght: 269g
Freq: 50Hz - 20kHz
Out Sens: 22mV/Pa
Max SPL: 120dB
Self Noise: 22dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: -
Con via: Switchcraft TA3F

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PCC-160 \$349

Polar: Supercardioid
Dim: 80 x 170 (mm)
Wght: 170g
Freq: 50Hz - 18kHz
Out Sens: 22mV/Pa
Max SPL: 120dB
Self Noise: 22dBA
Out Imp: 150Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: Switchcraft TA3F

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PZM-6D \$399

Polar: Hemispherical
Dim: 76 x 63 (mm)
Wght: 184g
Freq: 20Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 240Ω
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PZM-185 \$229

Polar: Hemispherical
Dim: 870 x 150 (mm)
Wght: 115g
Freq: 50Hz - 16kHz
Out Sens: 0.8mV/Pa
Max SPL: 120dB
Self Noise: 21dBA
Out Imp: 150Ω

Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



PZM-30D \$399

Polar: Hemispherical
Dim: 152 x 127 (mm)
Wght: 184g
Freq: 20Hz - 20kHz
Out Sens: 7mV/Pa
Max SPL: 150dB
Self Noise: -
Out Imp: 240Ω
Rec Load: -

Pwr Type: -
Alt Pwr: -
SC: -
Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



Soundgrabber II \$119.99

Polar: Hemispherical
Dim: 870 x 150 (mm)
Wght: 115g
Freq: 50Hz - 16kHz
Out Sens: 20mV/Pa
Max SPL: 120dB
Self Noise: -
Out Imp: 1.6kΩ

Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: 3.5mm
Pad: -
Filt Freq: -
Slope: -
SA: -
OA: -



MicW

MicW are a professional recording microphone brand, known for producing clean-sounding microphones. With great options for instrument and voice recording, MicW strive to develop products that faithfully reproduce sound and transmit the voice cleanly.

HQ: www.mic-w.com

iBoundary \$69 MSRP

Polar: Omnidirectional
Dim: 9 x 40 (mm)
Wght: 70g
Freq: 20Hz - 20kHz
Out Sens: 17.8mV/Pa
Max SPL: -
Self Noise: -
Out Imp: 2.2kΩ
Rec Load: -
Pwr Type: -
Alt Pwr: -
SC: -
Con via: 3.5mm 4-pole jack

Filt Freq: -
SA: split cable, PC/laptop cable
OA: -



Nevaton

Formed in Russia in 1991, Nevaton have their roots in the Leningrad optical and mechanical association and the scientific and industrial association EKTRAN. Founded as microphone manufacturers and a research laboratory, Nevaton have a base that contains an acoustic lab, including a large anechoic chamber, and a factory where each microphone is hand assembled.

USA: www.redsquareaudio.com
HQ: www.nevatonmics.com

MC 403 \$749

Polar: Hemispherical
Dim: 10 x 80 (mm)
Wght: 120g
Freq: 20Hz - 20kHz
Out Sens: 20mV/Pa
Max SPL: 130dB
Self Noise: 17dBA
Out Imp: 50Ω
Rec Load: 1kΩ
Pwr Type: P48
Alt Pwr: -
SC: 10mA
Con via: XLR-3 (M)

Pad: -
Filt Freq: -
Slope: -
SA: Hardwood box
OA: -



Shure

American company Shure make some of the most widely used dynamic mics, including the SM57 and SM58. They also manufacture high-end studio condensers, as well as wireless mic kits.

HQ: www.shure.com

Beta 91A \$239

Polar: Cardioid, hemispherical
Dim: 95 x 139 (mm)
Wght: 470g
Freq: 20Hz - 20kHz
Out Sens: 3.8mV/Pa
Max SPL: 155dB
Self Noise: 29.5dBA
Out Imp: 146Ω
Rec Load: -
Pwr Type: P48
Alt Pwr: -
SC: 5.4mA

Con via: XLR-3 (M)
Pad: -
Filt Freq: -
Slope: -
SA: Zippered carry bag
OA: -



Back electret

A form of electrostatic or capacitor microphone. Instead of creating an electrostatic charge in the capacitor capsule with an external DC voltage, an electret microphone employs a special dielectric material that permanently stores a static electric charge. A PTFE (polytetrafluoroethylene) film is normally used, and where this is attached to the back plate of the capsule, the device is called a 'back electret'. Some very early electret microphones used the dielectric film as the diaphragm, but these sounded very poor, which is why later and better designs that used the back electret configuration were specifically denoted as such. Some recent designs attach the PTFE film to the diaphragm, and these are known as 'front electrets'. Modern electret capsules compare directly in quality with traditional DC-biased capacitor capsules, and are available in the same range of configurations: large, medium and small diaphragm sizes, single and dual membrane, fixed or multi-pattern, and so on.

Bass tip-up

See 'Proximity Effect'.

Blumlein array

A stereo coincident-microphone technique devised by Alan Blumlein in the early 1930s, employing a pair of microphones with figure-of-eight polar patterns, mounted at 90 degrees to each other, with the two diaphragms vertically aligned.

Boom

A mechanical means of supporting a microphone above a sound source. Many microphone stands are supplied with a 'boom arm' affixed to the top of the stand's main vertical mast. The term may also be applied to larger, remotely controlled microphone supports used in film and TV studios, or even to the handheld 'fishpoles' used by film and TV sound recordists.

Boundary

A physical obstruction to sound waves, such as a wall, or a large, solid object. When sound waves reach a boundary, they create a high-pressure area at the surface.

Capacitor

A passive, two-terminal electrical component that stores energy in the form of an electrostatic field. The terminals are attached to conductive 'plates' that are separated by a non-conductive dielectric. Capacitance is measured in Farads. If a voltage is applied across the terminals of a capacitor, a static electric energy field develops across the dielectric, with positive charge collecting on one plate and negative charge on the other. Where the applied voltage is an alternating signal, a capacitor can be thought of as a form of resistor that becomes less effective with increasing signal frequency.

Capsule

An alternative term for a transducer that converts acoustic sound waves into an electrical signal.

Coincident

A means of arranging two or more directional microphone capsules such that they receive sound waves from all directions at exactly the same time. The varying sensitivity to sound arriving from different directions due to the directional capsules' polar patterns means that information about the directions of sound sources is captured in the form of level differences between the capsule outputs. Specific forms of coincident microphone configurations include X-Y and M/S, as well as B-format and ambisonic arrays. Coincident arrays are entirely mono-compatible because there are no timing differences between channels.

Coloration

A distortion of the natural timbre or frequency response of sound, usually, but not always, unwanted.

Decca tree

A form of 'spaced microphone' arrangement in which three microphone capsules (usually, but not always, with omnidirectional polar patterns) are placed in a large triangular array roughly two metres wide, with the central microphone one metre further forward. Sounds approaching from different directions arrive at each capsule at different times and with slightly different levels, and these timing and level differences are used to convey the directional information in the recording. The timing differences between channels can result in unwanted coloration if they are combined to produce a mono mix.

Diaphragm

The movable membrane in a microphone capsule that responds mechanically to variations in the pressure, or pressure gradient, of sound waves. The mechanical diaphragm vibrations are converted into an electrical signal, usually through electromagnetic or electrostatic techniques such as ribbon, moving coil, capacitor or electret devices.

Digital phantom power (DPP)

A digital microphone powering standard specified by the Audio Engineering Society. The AES42 digital microphone connection standard is essentially an AES3 interface with a bespoke phantom power system bolted on. Digital Phantom Power (DPP) operates at 10V ($\pm 0.5V$) and can supply up to 250mA of current. In addition, 2V signalling pulses superimposed on the 10V phantom power are used to pass remote control signals to the microphone to change polar pattern, operate a high-pass filter or introduce pre-attenuation.

Double-lapped (or Reussen) screen

The signal-carrying wires in a microphone cable are protected from external electrostatic and RF interference by a 'screen', which is a surrounding conductor connected to earth or ground. The Reussen screen is a specific form of cable screen, comprising two overlapping and counter-wound layers which are unlikely to 'open up' if the cable is bent, yet remain highly flexible.

Dynamic

An alternative name for microphones that employ an electromagnetic system for converting diaphragm movement to an electrical signal, ie. moving-coil and ribbon microphones.

Equivalent input noise (EIN)

A means of describing the intrinsic electronic noise at the output of an amplifier in terms of its equivalent acoustic noise, taking into account the amplifier's gain.

Field effect transistor (FET)

A solid-state semiconductor device in which the current flowing between source and drain terminals is controlled by the voltage on the gate terminal. The FET is a very high-impedance device, which makes it highly suited for use in impedance converter stages in capacitor and electret microphones.

Filter frequency

The 'turnover' or 'corner' frequency of a high- or low-pass filter. Technically, it is the frequency at which the signal amplitude has been attenuated by 3dB relative to the nominal level of the unaffected signal.

Frequency response

Variation in amplitude relative to the signal frequency. Regarding microphones, the sensitivity of a microphone at different frequencies.

Input impedance

The input impedance of an electrical network is the 'load' into which a power source delivers energy. In modern audio systems, the input impedance is normally about 10 times higher than the expected source impedance — so a typical microphone preamp has an input impedance of between 1500 Ω and 2500 Ω .

Lay length

The distance along the length of a cable over which the twisted core wires complete one whole turn. Shorter lay lengths provide better rejection of electromagnetic interference, but make the cable less flexible and more expensive.

Mono

A single channel of audio.

Moving coil

A technology used to convert energy between the mechanical and electrical domains. A coil of wire is allowed to move within a magnetic field. If the coil is caused to move, it will generate an electric current proportional to the movement (as in a microphone). If a varying electric current is passed through the coil, it will move in proportion to the amount and direction of the current (as in a loudspeaker).

M/S (Mid/Side)

A specialist form of coincident microphone array which, when decoded to left-right stereo, creates an equivalent X-Y configuration. In the M/S array, one microphone is pointed directly forward (the Mid mic) while the second is arranged at 90 degrees to point sideways (Side). The Mid microphone can employ any desired polar pattern, the choice strongly influencing the decoded stereo acceptance angle. The Side microphone must have a figure-of-eight response and be aligned such that the lobe with the same polarity as the Mid microphone faces towards the left of the sound stage. Adjusting the relative sensitivities of the Mid and Side microphones affects the decoded stereo acceptance angle and the polar patterns of the equivalent X-Y microphones.

Mutual angle

The physical angle between two microphones, used to specify various microphone array configurations (eg. 90 degrees for a Blumlein pair, or 110 degrees for an ORTF array).

Near-coincident

A means of arranging two or more directional microphone capsules such that they receive sound waves from the directions of interest at slightly different times, due to their physical spacing. Information about the directions of sound sources is captured in the form of both level differences between the capsule outputs, generated by aiming directional polar patterns in different directions, and the timing differences caused by their physical spacing. Specific forms of near-coincident microphone arrangements include ORTF and NOS.

NOS

A specific form of near-coincident microphone array devised by the Nederlandse Omroep Stichting (NOS), the Dutch national broadcaster. The technique employs a pair of small-diaphragm cardioid microphones mounted with a mutual angle of 90 degrees and spaced apart by 30cm. The theoretical stereo recording angle is 81 degrees.

Off/on-axis

Directional microphones are inherently more sensitive to sound from one direction, and the direction of greatest sensitivity is referred to as the principal axis. Sound sources placed on this axis are said to be 'on-axis', while sound sources elsewhere are said to be 'off-axis'.

ORTF

A specific form of near-coincident microphone array devised by the Office de Radiodiffusion Télévision Française (ORTF) at Radio France, the French national broadcaster. The technique employs a pair of small-diaphragm cardioid microphones mounted with a mutual angle of 110 degrees and spaced apart by 17cm. The theoretical stereo recording angle is 96 degrees.

Output impedance

The effective internal impedance (resistance which may change with signal frequency) of an electronic device. In modern audio equipment, the output impedance is normally very low. Microphones are normally specified with an output impedance of 150Ω or 200Ω, although some vintage designs might be as low as 30Ω.

Output sensitivity

The nominal output voltage generated by a microphone for a known reference acoustic sound pressure level. Output sensitivity is normally specified for a sound pressure level of one Pascal (94dB SPL), and may range from about 0.5mV/Pa for a ribbon microphone, to 1.5mV/Pa for a moving coil, and up to 20 or 30 mV/Pa for a capacitor microphone.

Phantom power

A means of powering capacitor and electret microphones, as well as some dynamic microphones with built-in active impedance converters. Phantom power (P48) provides 48V (DC) to the microphone as a common-mode signal (both signal wires carry 48V while the cable screen carries the return current). The audio signal from the microphone is carried as a differential signal, and the mic preamp ignores common-mode signals, so doesn't see the common-mode power supply (hence the ghostly name 'phantom'). This system only works with balanced three-pin mic cables. Two alternative phantom-power specifications also exist, the P12 (12V) and P24 (24V) options, although they are relatively rare.

Polar pattern

The directional characteristic of a microphone (omnidirectional, cardioid, figure-of-eight, etc).

Pop shield

Also known as a pop screen or pop filter, this is a device intended to prevent gusts of air

from striking a microphone's diaphragm and causing severe overload. A pop shield is often used to prevent plosive blasts from vocalists, and may be in the form of a foam sleeve placed over the microphone, or a mesh placed in front of the diaphragm.

Proximity effect

Also known as 'bass tip-up'. The proximity effect dramatically increases a microphone's sensitivity to low frequencies when placed very close to a sound source. It only affects directional microphones — omnidirectional microphones are immune.

Ohm (Ω)

Unit of electrical resistance and impedance.

Ribbon

A type of electromagnetic microphone in which the diaphragm is also an electrical conductor which is placed within a strong magnetic field. As the diaphragm moves, it generates a small proportional current.

Self-noise

A term used to describe the electronic noise contribution of the active impedance converter in an electrostatic microphone, and specified in terms of the equivalent acoustic sound pressure level required to create the same signal voltage as the amplifier's noise floor. The self-noise figure dictates the lower limit of the microphone's total dynamic range.

Shockmount

A mechanical isolator intended to prevent the transfer of vibrations that may be transmitted through a microphone stand from reaching a microphone, where they would otherwise produce unwanted low-frequency sound.

Spaced array

A means of arranging two or more microphone capsules such that they receive sound waves from different directions at different times. These timing differences are used to convey information about the relative directions of those sound sources. The technique is usually used with omnidirectional microphones, although directional mics can also be employed. The best-known form of spaced array is the Decca Tree. Mono compatibility is often reduced because the timing differences between channels often results in comb-filtering coloration when the channels are summed to mono.

Sound pressure level (SPL)

A measure of the intensity of an acoustic sound wave. Normally specified in terms of Pascals for an absolute value, or relative to the typical sensitivity of human hearing. One Pascal is 94dB SPL or, to relate it to atmospheric pressures, 0.00001 Bar or 0.000145psi!

SRA

See 'Stereo recording angle'.

Stereo

By convention, two channels of related audio which can create the impression of separate sound source positions when auditioned on a pair of loudspeakers or headphones.

Stereo recording angle

The angle over which sound sources can be captured by a microphone array. For a stereo array with a stereo recording angle of 90 degrees, sound sources can be placed ±45 degrees relative to the array's centre front axis, with a source at the extreme angle appearing fully left or right in the stereo image.

Valve

Also known as a 'tube' in America. A thermionic device in which the current flowing between its anode and cathode terminals is controlled by the voltage applied to one or more control grid(s). Valves can be used as the active elements in amplifiers, and because the input impedance to the grid is extremely high they are ideal for use as an impedance converter in capacitor microphones. The modern solid-state equivalent is the field effect transistor or FET.

XLR

A type of connector developed by US manufacturers Cannon, and used widely in professional audio systems. The company's original X-series connector was improved with the addition of a latch (Cannon XL) and a more flexible rubber compound surrounding the contacts to improve reliability (Cannon XLR). The connector format is now available in numerous configurations, from many different manufacturers, and with several different pin configurations. Standard balanced audio interfaces — analogue and digital — use three-pin XLRs with the screen on pin 1, the 'hot' signal on pin 2 and the 'cold' signal on pin 3.

X-Y

A specific way of mounting two directional microphone capsules such that they both receive sound waves from any direction at exactly the same time. Information about the direction of a sound source is captured in the form of level differences between the two capsule outputs. Commonly, the two microphones in an X-Y array are mounted with a mutual angle of 90 degrees, although other angles are sometimes used. The two capsules will have the same polar pattern, the choice of which determines the stereo recording angle (SRA). The X-Y configuration is entirely mono-compatible because there are no timing differences between the two channels. ■■■

The following manufacturers were invited to participate in this guide, but had not supplied any data or images by the production deadline.

AMT

www.appliedmic.com

Azden

www.azden.com

Berliner Microphones

www.berlineraudio.com

Bock Audio

www.bockaudio.com

BPM Studiotechnik

www.bpm-studiotechnik.com

Chameleon Labs

www.chameleonlabs.com

Clockaudio

www.clockaudio.com

Countryman Associates

www.countryman.com

Da-Cappo

www.da-cappo.com

Electroharmonix

www.ehx.com

Equation Audio

www.equationaudio.com

Hebden Sound

www.hebdensound.co.uk

Heil Sound

www.heilsound.com

JJ Audio

www.jjaudiomic.com

Kel Audio

www.kelaudio.com

Korby Audio Technologies

www.korbyaudio.com

Lawson

www.lawsonmicrophones.com

M-Audio

www.m-audio.com

Maroon Audio

www.maroonaudio.com

MBHO

www.mbho.de

Marek Design

www.md-mics.com

Milab

www.milabmic.com

Nady

www.nady.com

Samson

www.samsontech.com

Sanken

www.sanken-mic.com

SD Systems

www.sdsystems.com

Sonodore

www.rensheijnis.com

Soundfield

www.soundfield.co.uk

Soundking

www.soundking.com

Soundman

www.soundman.de

Superlux

www.superlux.us

Symphotec

www.symphotec.de

Taylor Hohendahl Engineering

www.theaudio.com

Tram

www.trammicrophones.com

Violet Design

www.violet-design.com

XXL Inside

www.xxlinside.com



There's a FREE DOWNLOAD of the Microphone chapter of Alan Parsons' Art & Science Of Sound Recording series for every reader.

Visit www.artandscienceofsound.com/sos and enter the access code 'sosapv' to register and pick up your free download.

The career of legendary producer Alan Parsons spans more than 40 years, beginning at England's Abbey Road studios in 1967 with his work on the Beatles' *Abbey Road* album. Our free video download brings you the benefit of his years of experience of mic types and techniques, offering a 35-minute primer on the science behind microphones, and their various designs and applications. Along the way, Alan Parsons explains how and what mics

'hear,' discusses dynamic range and sensitivity, covers mic characteristics and, finally, teaches you something about mic placements and techniques. You'll learn about pairing mics with instruments, and discover the generally accepted 'classic' mic choices you can use as starting points. Contributions from other professional producers and engineers, including self-confessed mic junkie John McBride, of Nashville's famous Blackbird Studios, add to the value of this video tutorial. **///**

Alan Parsons

Alan Parsons engineered Pink Floyd's *Dark Side Of The Moon* and countless other classic hit records. His Art & Science Of Sound Recording series is a video encyclopaedia of modern recording tools and techniques. In more than 10 hours of HD video, Alan looks at everything from soundproofing and acoustics to the final mix. Interspersed is a bird's-eye view of a live tracking session for his original song 'All Our Yesterdays', plus in-depth sections on recording all the major instrument types, and vocals.



ADVERTISERS INDEX

AKG Acoustics	www.akg.com	81	Lewitt Audio	www.lewitt-audio.com	139
Alan Parsons Video	www.artandscienceofsound.com	OBC	Microtech Gefell	www.microtechgefell.com	115
Aphex	www.aphex.com	31	Miktek	www.miktekaudio.com	121
Audio Engineering Associates	www.ribbonmics.com	135	Mojave	www.mojaveaudio.com	99
Audio-Technica	www.audio-technica.com	11	Neumann USA	www.neumannusa.com	111
Audix Corporation	www.audixusa.com	13	RODE Microphones	www.rodemic.com	21
Blue Microphones	www.bluemic.com	95	Royer Labs	www.royerlabs.com	129
Charter Oak	www.coproaudio.com	141	Schoeps Mikrofone	www.schoeps.de	117
Cloud Microphones	www.cloudmicrophones.com	127	Shure	www.shure.com/americas	IFC
DPA Microphones	www.dpamicrophones.com	163	Stedman Corporation	www.stedmancorp.com	57
Earthworks Audio	www.earthworksaudio.com	103	Sterling Audio	www.sterlingaudio.net	53
Fingerprint Audio	www.fingerprinaudio.com	75	Studiofilter	www.studiofilter.com	83
Focal Press	www.focalpress.com	73	SONY	www.sony.com/proaudio	IBC
Focusrite	www.focusrite.com	49	Sound Pure	www.soundpure.com	125
Grace Design	www.gracedesign.com	37	Sweetwater Sound	www.sweetwater.com	4-5
JZ Microphones	www.jzmic.com	61	Telefunken	www.t-funk.com	145
Lauten Audio	www.lautenaudio.com	67	Vintage King	www.vintageking.com	97

SONY
make.believe

digital wireless for all



Epic digital wireless technology, now amazingly affordable.

Introducing the DWZ Series with affordable 2.4 GHz technology. You get solid-gold 24-bit linear PCM digital audio to keep you sounding your best. You get robust transmission and easy channel selection. Even automatic feedback reduction, encryption and battery charging are available. And Sony has pre-assembled DWZ packages for guitar, vocals, presentation and speech. Sony's DWZ Series. Sound like a million bucks without spending it.

Visit sony.com/proaudio



Learn From The Audio 'Professor' Alan Parsons
THE ART & SCIENCE OF SOUND RECORDING



**Open Your Eyes And Ears
To A New World Of
Recording Secrets**
with legendary engineer, producer and
artist Alan Parsons

- 3-DVD boxed set available at all good music stores
- Downloads and streams direct from the website
- Educational License at participating schools and colleges
- Live Master Class Training Sessions all over the world

"If you want an education in all things audio, could you ask for a more qualified teacher than Alan Parsons?" Mike Senior, Sound On Sound

Previews, downloads and hours of free bonus videos at
www.ArtAndScienceOfSound.com

Narration by
Billy Bob Thornton.

