

It's in the detail



Welcome to sE Electronics

sE Electronics was established in 2000 by founder Siwei Zou and his three business partners, James Ishmaev-Young, Mitch Carey and Phil Smith who have taken the company from its early OEM days to the independent manufacturer it is today.

The company is totally unique in the world of microphone building, being wholly owned by the 4 partners, independent of big corporations, and yet being the only mass market mic manufacturer in the world to be a complete 'one-stop-shop'; meaning we literally take in raw materials at one end, and produce everything in-house for the finished product; hand made chassis, hand made capsules, shock mounts, flight cases, cables... you name it, we build it. No other company does this.

This has allowed us an unprecedented degree of control over our product development, and although it is much more expensive and labour intensive for us than for the mass automated production preferred by 'margin-driven corporations', it yields a far superior product to each price point, and a much faster turnaround of new ideas to market; something that has led sE to become a market leader in recent years for innovation in this market sector.

This brochure is a brief overview of our current range, but for much more in depth commentary, testimonials and applications from a huge number of recording artists and top producers, engineers and studios, and for all historical reviews and factory tour pieces, please let us welcome you to our world at www.seelectronics.com

In most territories we are also able to offer a free loan service for all end users, so you can try out our products before buying them, so confident are we that you'll love the sound and build quality.

Please do contact us if you have any comment on our products as it helps us with our continued R&D, and thank you for reading about sE mics.

A handwritten signature in black ink, appearing to read 'James'.

James Ishmaev-Young

Hand-Made Capsules

Every sE Electronics microphone has at its heart a hand-built capsule and like any great instrument, the best are made by hand not by machines

Solid Brass Chassis

sE microphones use the finest raw materials for the best build quality and tone. sE mics are built to last

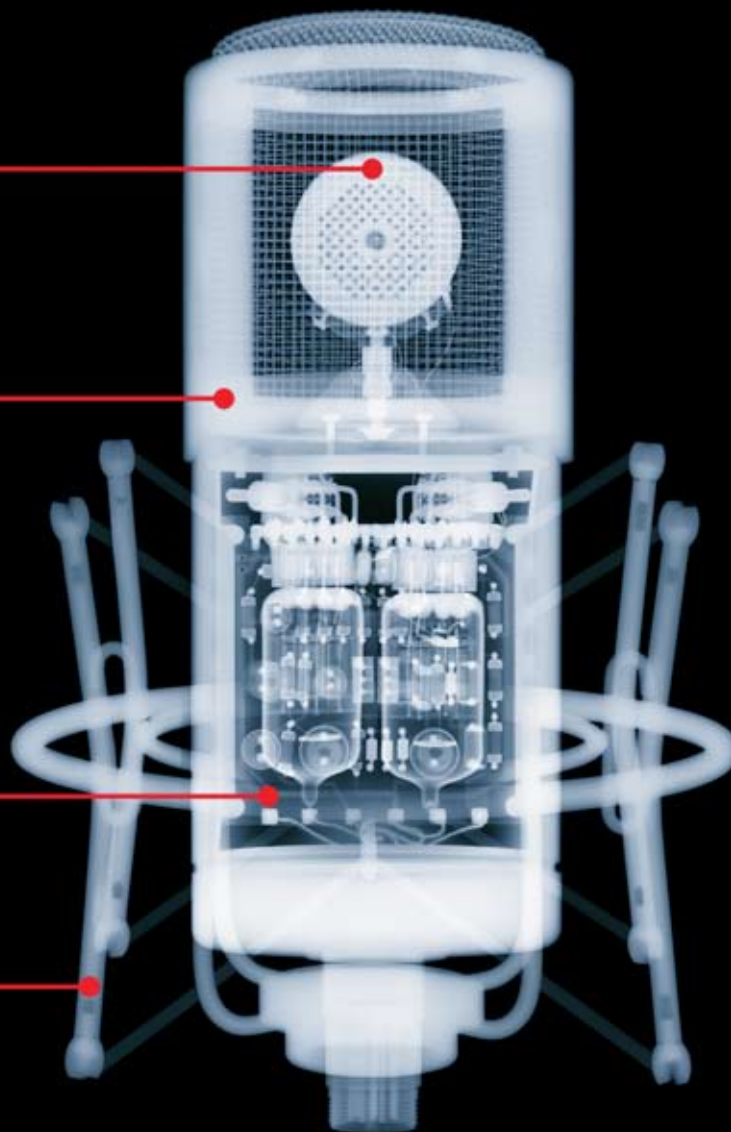
Hand crafted chassis from solid brass give much improved performance and are built to last longer than traditional cheaper moulded chassis

Discreet Class A Circuits

Hand stuffed circuit boards make high end mics it's that simple

Full Range of Accessories

We offer a full range of accessories including stands, pop shields and acoustic products



Choosing the mic that you are going to use is as important as choosing any other instrument you use for recording... every model of microphone, from the lowliest to the most expensive has its own sound, and all will find a use for one application or another. At sE this process of finding the right instrument for the job is no matter of accident though. We don't build mics and then find applications, we find out how people want to record, what they are aspiring to achieve, and then set out to design and build a recording instrument that can deliver their dreams. No easy thing to achieve this, but in our quest to be the best of the best we never expected 'easy'... and so you'll find a little piece of our dreams in every mic, because we have lived and breathed the passion of our art in every microphone we've developed.

Our microphones are about picking up the detail in every recording situation, whether that is the soft, smoky ambience of a Jamie Cullum Jazz drawl, or the anger, energy and subtleties of a Troy Van Leeuwen guitar track. Detail isn't just about pumping a little more HF out by hyping the top end of a mic... its about knowing how to voice a microphone so it faithfully records a performance, adding something special to every take without masking it. Its about how the product looks, feels and performs in every minute way. Not only do we design our microphones with specific applications in mind, but we work constantly with many of the biggest name artists, engineers and producers in the recording industry to develop new products which they want to use.

We believe that working this way gives us an exceptional edge, and results in recording instruments that people don't just like, but LOVE with the same passion they'd love their favourite guitar.



'The sE GM10 and the sE Reflexion Filter have been well thought out and beautifully constructed to address a simple problem with a simple solution that has enabled me to enhance the creative environment for these artists - many thanks sE!'

'There is really only one thing to say about the sE4400a - it is fantastic!'

'I have used it on acoustic guitar, electric guitar, bass, percussion - it is a true all rounder.'

'I can see the sE4400a becoming a requirement for all good microphone cupboards.'

Tony Platt

Bob Marley, AC/DC, Thin Lizzy, The Stranglers, Motorhead, Gary Moore, Buddy Guy

'The sE4 Stereo Pair are particularly suited as drum overheads and on acoustic instruments including strings. They command a very real and pure sound and come provided with a useful stereo mount.'

'The Gemini II is a versatile vocal/room/general purpose mic which is never left in the box on a session.'

'Recently I've been using the RI Ribbon which I love on guitar cabinets.'

'I think sE microphones are of the highest quality and fantastic value for anyone's money.'

Gil Norton

Foo Fighters, Pixies, Gomez, Feeder, Counting Crows, Maximo Park

'I used the sE mics on my latest record and had really great results. I especially liked the RI ribbon mic, very smooth and realistic. Great as drum overheads or on a guitar amp. The Titan is another one of my favorites.'

It's a great mic for a bass amp or kick drum, but to my amazement, it also sounded really great on vocals!'

Brendon Benson

Raconteurs, Brendan Benson

'The sE4400a is a beautiful microphone. I've tried it on nearly everything I can with stunning results. Wonderful warmth, depth and amazing clarity. It will be a classic and will be used by me for a long time to come. It sounds and looks superb.'

'I've been using the RI Ribbons on guitar and for drum ambience with great results. They sound (and look) pretty sweet. Warm, deep and detailed. The RI's are getting a lot of use at the moment.'

'I've not used the Reflexion Filter for it's primary purpose, vocals (I like to see the singer) but have used it on guitar mics to get some separation when the band are all in the room. Very useful and smart.'

Jackknife Lee

REM, U2, Green Day, Snow Patrol, Bloc Party, The Hives, Vega4, The Editors

'I love sE mics - they quite simply record what I play - nothing added, nothing taken away. Superb. I would happily recommend sE. Great mics.'

Geoff Dugmore

Robbie Williams, Tina Turner, Dido,

'I had a couple of expensive mics from Germany and Latvia plus the sE Gemini II. From the moment my assistant talked through it (the Gemini II) I knew it was something special. Actually, it blew both of the other mics away. I can hardly believe that the Gemini II sounds so good.'

Sven Lens

Snoop Dog, Willie Nelson

'We tried the sE Instrument Reflexion Filters in rehearsals and they seem to work so we bought four. When we did the first shows, some small warm up gigs in tiny clubs, they came into their own. The spill was dramatically reduced and the sound more focused. They exceeded my expectations.'

The IRFs have now been on tour doing major festivals around the world, and have become an essential part of the bands touring package.

John Burton

FOH Engineer - Prodigy

'I recently used the sE Reflexion Filter while recording vocals at an artists house and it was the ideal solution. It's like you don't need a studio anymore. If I'm ever recording in a less-than-ideal acoustic I can just throw the RF up and all the problems are gone - I've got a clean and clear sound as if I was recording somewhere considerably more expensive.'

'The Gemini II kind of gives you the best of both worlds - it's got all the presence and mid-range clarity you'd expect from a valve mic, but with a really open and clear top end that you wouldn't expect. I'd normally be adding a bit of top when recording vocals but have found it's not necessary with the Gemini II as it's already there.'

Dom Morley

FOH Engineer - Prodigy

"I use the sE Reflexion Filter in my vocal booth. Generally, so you can see the vocalist you have them standing not very far from a glass window and, of course, you are getting bouncing sibilance back from the window into the mic and it can give you really blurry s's and t's. The Reflexion Filter cleans those up nicely and I find it also helps control the bottom end; you get a really good bottom end on the vocal. It really does make it sound like you have a very expensive booth. I also love the Gemini on vocals and guitars."

Chris Porter

**George Michael, Pet Shop Boys,
Tina Turner, Cliff Richard**

"The sE Gemini - Wow. That mic is dangerously cool! Real quality. The sE Z5600a is a great mic. I know it's a great vocal mic, but it's fantastic on piano as well. Beautifully clean. The sE3 Stereo Pair are fantastic, a real class sound. I use these on all my overheads."

Courtney Pine

JAZZ PERFORMER and PRODUCER

"The Reflexion Filter is a great idea, so simple but useful. It gets used whenever I get to work in my own studio on vocals, acoustic guitars, electric guitars, percussion, hi-hat overdubs...."

Rob Harris

Jamiroquai, Kylie Minogue, Beverley Knight

"I love sE Mics. I use them in the studio because they give me a sound I can't get from anything else. I've recently been using the Gemini on vocals and acoustic guitar, and I love the sE3 Pair over my piano. I can't wait to check out the sE Ribbon."

Jamie Cullum

Singer/Songwriter

"We've been using the sE Gemini and z5600a for various applications, from vocals, guitar and piano to live drums and we've had fantastic results. These mics are great. We're using them all the time."

Guy Chambers - PRODUCER/SONGWRITER

**Robbie Williams, Diana Ross, Tom Jones,
Kylie Minogue, James Blunt**

"We've got the whole sE range but I primarily use the Gemini," says Chris. "What I like about it is that it has a bump around 2k and another bump on the top end so it has an immediate feel about it and you will know straight away whether it's working. Some mics you will need to adjust this, that or the other but the Gemini is a very characterful mic and sounds very good on most things."

Chris Harrison

Morcheeba

"I am using SE Electronics microphones all over my new album. They sound absolutely unreal! I love the Z5600a, it reminds me of the character of a Neumann U47 but with 1/10th of the noise. If you're looking for an expensive sounding mic at a reasonable price, look no further."

BT

MUSICIAN/PRODUCER

"The Z3300a's were absolutely mindlessly lovely on the toms, just stuck them there and plugged them in and they sounded great. The sE3's did a great job on the hat and bottom snare, and the Titan worked nicely as a mono overhead."

"I'm very happy with these guys."

"Yesterday I spent the day recording drums with a 100% sE setup, which would be the first time I haven't used either my 193/re2000 rig or my other standard (just an old EV omni dynamic just above the kick) in YEARS, so it's a big step for me."

James Murphy

LCD Sound System

"Yet another mic from sE that is a must have for multiple applications, the Titan handles everything thrown at it. From the punch of drums and bass, to the delicate touch of any acoustic instrument, every frequency is captured with ease."

The Z5600a is a mic that you could just leave up in your tracking room and record with any instrument in combination with a close up mic. The switching in between the three patterns of the capsule is a great way to dial in the depth of your room. Another workhorse in my mic collection."

Troy Van Leeuwen

Queens Of The Stone Age, Enemy

WHAT PRO USERS SAY

"I am incredibly impressed by the seemingly contradictory combination of warmth, crispness and definition that was captured in the tracks by the Gemini and Reflexion Filter."

The songs we were working on had dense arrangements yet the sax cut through without ever sounding abrasive or disconnected from the rest of the track. It was a beautiful, natural sound, we didn't even use any EQ!"

Don Was

**Bob Dylan, Bonnie Raitt,
The Rolling Stones, Willie Nelson
Was Not Was**

"I love the warmth, fullness, presence and the fat sound of the Gemini, and every studio should have a Reflexion Filter. It's great for isolating sound and it's perfect for on the road."

The Reflexion Filter is exactly what I've been waiting for."

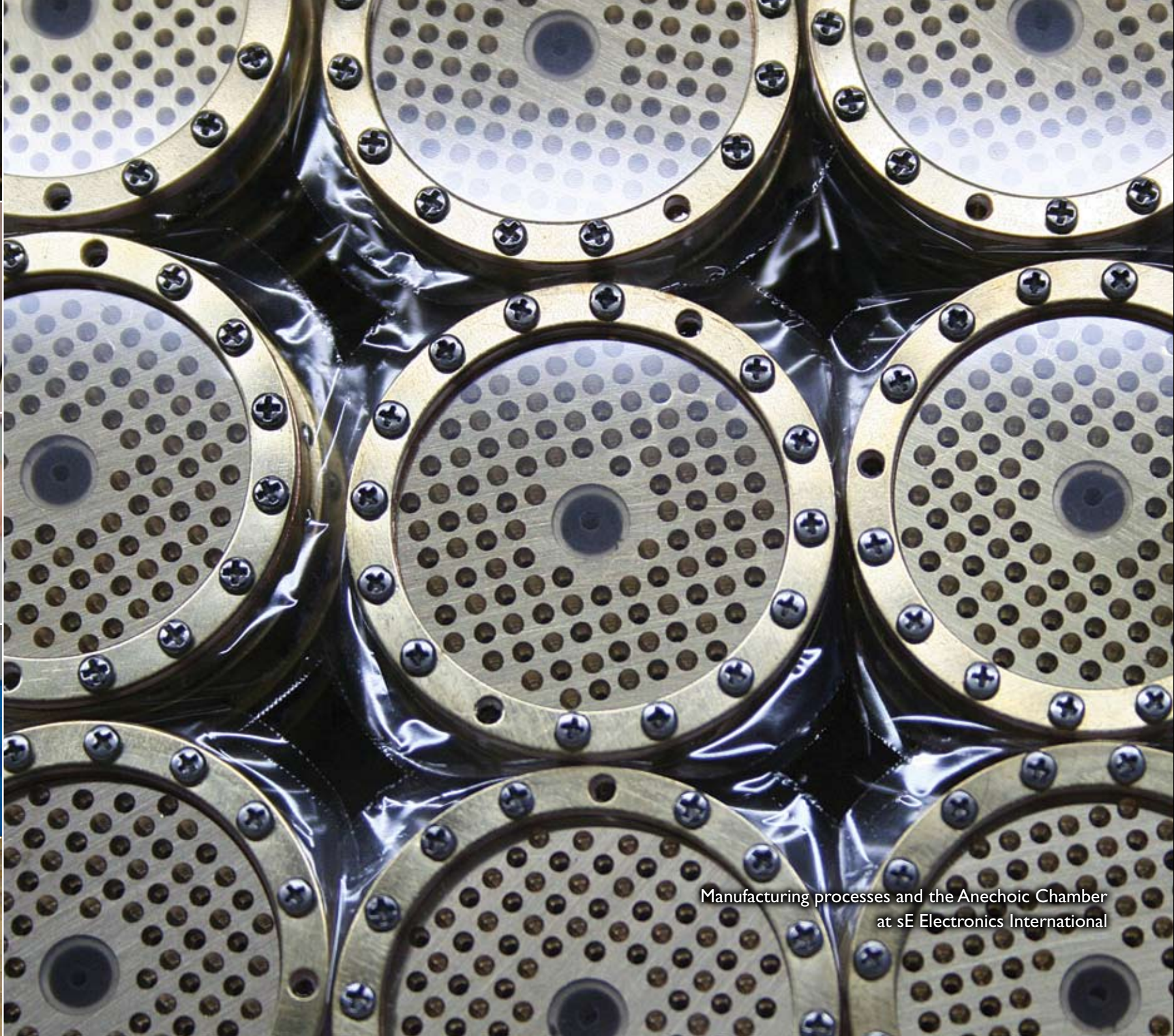
Stevie Wonder

"I've been trying the sETitan in all the places I would normally use my Neumann Fet 47 (Bass and Kick). I was surprised when I started picking the sETitan over my favorite '47' in those spots."

Eric Valentine

Nickel Creek, Third Eye Blind, QOTSA





Manufacturing processes and the Anechoic Chamber
at SE Electronics International

DESIGN...

Our microphones are clean and simple in their exterior design, not overly fancy like some, because our focus is on products that perform well and are built to last. The packaging is the best on the market today, with high end professional shock-mounts, full aluminium flight cases, the works... no corners cut.

BUILD...

The capsules, though simple in idea, are an exact science in design and build, and the real magic in every mic.

Where most big brands today use only automated machinery to produce and test their capsules, in an sE microphone each capsule is hand made and hand tuned as well as electronically tested and measured. So, just like any hand crafted instrument, the sound is not just consistent and good, but honed with a craftsman's hand and a musician's ear.

All our capsule engineers undergo 3 years of 'sE university training program' before they can make a finished capsule product, and 5 years before they can be called a master capsule engineer because, like everything done exceptionally well, they have to make a very difficult and intricate job look easy.

It's a much more time consuming and expensive method of production than using automation, but the end result of our design and manufacturing processes are some of the world's best recording instruments.

If you think of microphones as just a bunch of electronic components, much the same thing no matter what you choose, just variations on build and component quality... then you have only half the story, and none of the heart of the matter. Certainly these things count, and many manufacturers spend countless words trying to tell people that technical specifications are ALL that matters, but we think a little differently at sE.

Of course we'll give you all the specifications, the quality components, the nuts and bolts that we'd expect you to have in the best mics, but the heart and soul of our products are the capsules, how they're hand crafted, every one of them, to standards that only the world's best microphone builders would be proud of. Each mic also goes through the most rigorous quality control, and every one is given a personal listening test, something that until sE came along, only the very high end 'boutique' manufacturers did. Like everything we do it costs us a little more time and effort, but we know you'll think it was worth it..

DESIGNED AND BUILT WITH EXPERTISE



SE PENCILS



sE1a

Building on the incredibly popular sE1, the sE1a retains the same capsule but combines this with all new, super-quiet electronics, all housed in a superbly restyled chassis. This end-fire small diaphragm condenser microphone really is an astonishing value for money.

Great for drums, pianos, acoustic stringed instruments, and the stereo pair are great as room mics. The sE1a is a must have for any size studio. The sE1a is also available as a stereo, factory matched, pair.

STEREO FACTORY MATCHED PAIR AVAILABLE.



sE2a

The sE2a microphone takes the sE1a to the next level, with 3 interchangeable capsules, which offer omni, cardioid and hyper-cardioid polar patterns. Packaged with a very smart shock-mount and Aluminium flight case, the sE2a is perfect for any recording application.

This small diaphragm pencil condenser microphone will blow you away with its ultra detailed sound and amazing value for money.



sE4

The sE4 replaces the sE3 and sE3 pair. The mic is a remodelled sE3, designed to sound and perform exactly the same, and with very similar styling, but with one key new feature. The chassis has been re-engineered to accept 2 additional interchangeable capsules, a Hypercardioid and an Omni.

The sE4 has been renamed, despite its similarity to the existing sE3, to avoid confusion, since the new capsules will NOT fit on the current sE3 model. Both single and matched pairs of mic and capsule sets are available, and the packaging has also been updated with sE's new hi spec black Aluminium, steel reinforced, flight cases. All sE4 packages ship with full suspension shock mounts included.

STEREO FACTORY MATCHED PAIR AVAILABLE.



SE GUITAR MIC & LIVE



GM10

The guitar mic is a unique new addition to the sE range, designed to solve an age old problem in micing acoustic guitars for studio recordings. There is always a trade off when recording, between the need to stay still in front of the mic to avoid changes in the sound of the instrument as it's recorded, and the need for the performer to get an 'emotional' take. The two requirements don't sit well together and this often leads to recorded takes sounding too clinical... too 'perfect' and lacking the performance element that often makes a song.

The GM10 incorporates the world's smallest gold sputtered mylar capsule at 17.1mm, along with a proprietary shock mount assembly built into the capsule head. A universal clamping system enables the user to fix the mic in place (on any flat backed acoustic guitar) so the condenser capsule is perfectly placed top record take after take from exactly the same position.

The clamping mechanism and shock mount ensure that there is zero mechanical noise transferred through the guitar body. This allows the user to capture a perfect recording every time, while still being able to move around freely, which encourages the performer to give their best on a take. The Guitar Mic really does transform recorded performances of acoustic guitar, and the way you work in the studio.



H1

The 'H1' Hand Held Condenser is based on the sE2a condenser capsule, re-voiced and tuned to accept an SPL of up to 145dB. The H1 has been designed to meet the needs of both the project studio user and the live/touring market.

The H1 has a specialised 'internal shock-mount' which allows it to be hand-held during a live performance with very low handling noise, much like a traditional dynamic mic. However, its capsule is that of a true condenser, so live performances are much 'clearer and richer' than they would be with a dynamic mic.

It's a true all-rounder with fantastic studio recordings and a live sound that will astound you.





sE 1000a

The sE1000a is sE's new entry level condenser mic for studio vocals and instrument recording. It has a 1/2" capsule tuned to accept low frequencies just like a larger diaphragm mic.

Sister product (analogue only) to the USB1000a, the sE1000a performs well above it's price point and looks the business! Flight case is not included, but can be bought separately on the sE site. The mic ships with a built on shock cradle.



sE 2200a

The sE2200a studio condenser mic draws on and improves the incredible specifications that won the original sE2200 so many awards around the world. Utilising the much acclaimed sE 1" gold vacuum plated diaphragm, new electronics with improved signal to noise ratio, the sE2200a also has a low cut filter, 10dB pad and comes complete with a very rugged aluminium shock-mount and flight case.

The sE2200a has won just about every award going for excellence and value, including twice winner of the coveted Music Industry Association award in 2004 and 2006.



Z3300a

The Z3300a is our most versatile FET microphone and utilises a large 1.07" twin diaphragm, which gives the engineer a choice of three polar patterns, omni, cardioid and figure of eight.

Couple this with a 100Hz low cut filter and new ultra clean, ultra-quiet Z range electronics and the Z3300a is the ultimate solid state microphone for almost all recording applications, from vocals to pianos and acoustic instruments.



T2

The eagerly awaited Titan replacement is now with us in the form of the all new T2.

This mic has all the tonal assets of the acclaimed Titan mic, with unparalleled HF response on fast transients such as percussion/drums, but with an all new, rugged and functional chassis, and a host of extra features including 4 polar patterns, 2 bass cuts, a 10 and 20dB pad and the unique new sE 'open face' shock mount.

Why Titanium? - The T2 has a Titanium capsule instead of the more usual gold sputtered type. Titanium has special properties that make it especially well suited to making high quality microphone diaphragms, and is used in the world famous Neumann M150 diaphragm because of this (at \$7000 one of Neumann's most expensive models). Like gold it does not tarnish but it is a lighter metal than gold and stiffer, therefore it moves faster and gives a superior transient response. A better transient response means clear high frequencies with less distortion and a tighter low frequency response.

4400a

The 4400a has a twin diaphragm 1" capsule offering 4 polar patterns, Cardioid, Hypercardioid, Figure of 8 and Omni. 2 bass cuts at 60Hz and 120Hz; and 2 pads at 10dB and 20dB.

The small chassis has been designed to allow the mic to be used flat onto a drumhead or guitar cab, or pushed through into the skin of a kick drum. It is also perfect for vocals and voice over work.

The capsule has been specially tuned to really be something that very few mics can; the true all-rounder and can be used for micing drums, acoustic guitars, guitar cabs, vocals, anything! Vital in professional studio or broadcast applications where an engineer needs to know he can reach for a mic that will handle any job.

The sE4400a comes with a unique shock mount which allows you to fit the mounted mic into tiny spaces, or invert the shock clamp to extend the mic fully outside the shock mount for close mic-ing applications or vocals. It also comes with a full, steel re-enforced, black aluminium, signature sE flight case.

STEREO FACTORY MATCHED PAIR AVAILABLE.



Troy Van Leeuwen - QOTSA, Sweethead, Enemy



SE2200T

The sE2200T is the long awaited tube version of the highly acclaimed and multiple award-winning sE2200a. Utilising the 2200a 1" gold vacuum plated diaphragm, and a brand new custom power supply, the SE2200T also has a low cut filter, 10dB pad and comes complete with a very rugged aluminium shock mount and flight case. The 2200a has won just about every award going for excellence and value for money, including twice winner of the coveted Music Industry Association award in 2004 and 2006; the 2200T, with its silky low and mid frequency response improves on this already superb sounding mic with classic tube overtones.



ICIS

The ICIS tube condenser is quite simply stunning. Beautiful looks, great design, exceptional sound, and at an incredible price.

The ICIS has a large 1.07" gold-sputtered, edge-mount diaphragm, with a fixed cardioid pattern.

Everything about the ICIS is designed to capture the heart and warmth of a performance, whilst maintaining a truly detailed vocal take. It is voiced differently to the other sE valve mics, and is spectacularly good on female vocals and wind instruments.



Z5600a II

The Z5600a II is one of the most versatile mics on today's market. With 9 graded steps through omni, cardioid and figure of eight patterns, 10dB pad and bass cut, the Z5600a II finds uses in a huge number of applications, from mic-ing a live drum kit, to overhead on a choir. Above all though, this excellent mic has won its praise on delivering superb vocal recordings, with natural warmth and incredible detail.

This beautiful mic, comes in a wooden presentation case, cradled in a full aluminium flight case with a large shock-mount and a brand new brushed Aluminium PSU with pattern switching and cables.



Gemini II

The Gemini II dual valve microphone is sE Electronics ultimate design. A no holds barred piece of microphone history. The dual valve design means pure valve warmth from the 12AX7 input valve coupled with a 12AU7 valve on the output stage in place of the traditional transformer. The result is an incredibly large detailed and intimate sound reminiscent of the classic valve microphones from decades ago, but with all of the top end you'd normally associate with the best solid state mics on the market.

The all new Gemini II now has a 10dB pad and bass cut, a brand new brushed Aluminium PSU and lower s/n ratio. If you are after something that extra bit special you really must hear this microphone. Prepare to be amazed.



Every now and then, if a company is very lucky, they have the chance to be part of a revolution in technology... for sE Electronics that time is now...

In one of the most exciting partnerships in manufacturing in modern times, sE Electronics International and Mr Rupert Neve are working together to produce a brand new range of sE Rupert Neve signature series microphones.

The first of several mics being readied for production in this new sE series is the new benchmark in active Ribbon mics. Truly revolutionary performance comes from combining discrete circuits and custom designed hand wound transformers by Mr. Rupert Neve, and the best in capsule and manufacturing technology controlled by Mr Siwei Zou of sE Electronics.

The combination of a custom designed transformer and circuits from the man who has become legend in the world of solid state electronics, and a microphone and Ribbon from Siwei Zou, who in the relatively short history of sE has designed such industry standards as the multiple award-winning sE2200a and Gemini II (not to mention the hugely successful Reflexion Filter), has given rise to a product which will surpass everyone's expectations of what recording excellence can be achieved with, not just ribbon mics, but any microphone.

A leap in technology... the world's first HF Ribbon mic

For many decades Ribbon mics have been used by engineers for their extremely natural sounding reproduction of source material. The nature of their performance differs greatly from condenser mics, which by comparison sound very 'up front' and lack the harmonic depth of a good ribbon. However there has always been a major drawback with all ribbons, even at the high end of the market, and that is the customary roll-off of almost all the top end frequencies so that, in effect, there is little or no performance past 7-10KHz depending on the model. This is why condenser mics dominate the recording market, since their frequency response can be assumed to be fairly consistent from 20Hz to 20KHz, albeit requiring a certain degree of circuit board magic to achieve this since the tautness of the diaphragm compared with relatively slack ribbon membranes means condensers tend to be more coloured in their sound.

So, traditionally, engineers using ribbons, however expensive, have been either severely limited on suitable applications, or they have had to augment the recording with a condenser mic to capture the high frequency absent from the ribbon output... neither is ideal and compromises like this have meant that ribbons have never been very widely accepted or used as a first choice for recording. Not any more!

Rupert Neve's custom circuit design has allowed high frequencies present from the output of the capsule to be revealed in fine detail for the first time ever in a Ribbon microphone. Standard performance of the RNRI is therefore an unprecedented 20Hz to 24KHz... three times the frequency range of even the best available competitor ribbon mics on the market today!!

More than this though, hand wound custom input and output transformers from Mr Neve, create huge amounts of headroom and effectively lower the noise levels when using gain stages to amplify the signal. The slight dip in the frequency response from 16-20KHz in the RNRI can therefore be effectively flattened if required, to produce an almost perfectly flat response way beyond what our ears can perceive. This is crucial in making the RNRI not only by far the best performing ribbon mic available, period, but amongst the best mics in the world of any kind.

Since it is the faithful reproduction of fine harmonic material that differentiates the natural sound of a ribbon from condensers, which heavily colour the signal, masking these delicate nuances, this tendency also affects the high frequencies in the RNRI, imparting a natural sound throughout the frequency spectrum.

SE RUPERT NEVE SIGNATURE SERIES



sE | RNR1

- Unparalleled high frequency performance 20Hz to 25KHz
- Incredible detail and natural sound from fine harmonics
- Custom designed circuit boards from Rupert Neve
- Hand wound Rupert Neve designed input and output transformers
- Superb Styling and accessories

Further, the unprecedented performance right through to 24KHz means that frequencies inaudible directly to the average adult human ear, modulate harmonics which are audible further down the spectrum.

The result is an even more realistic sound. When listening to a musician or singer in a room, live, you not only hear the 20Hz to 20KHz range, but all the modulation from infinite harmonic frequencies normally masked on any recording.

The RNR1 is not only the world's first ribbon to perform as well as any condenser... it performs BETTER than any ribbon or condenser, revealing high frequencies missing from ribbons and harmonic information absent from both!

The future...

Following hot on the heels of the release of the sE Neve Ribbon will be a large diaphragm tube mic, and a solid state condenser. In a word, the mics are BEAUTIFUL, the packaging is second to none, and their performance will set new standards in the high end microphone market.

Design Comment

Mr. Rupert Neve

"Recent developments in the way that humans perceive sound are demanding significant advances both in performance and the philosophy of audio processing. That which was 'good enough' for light-hearted amusement fails to satisfy the thoughtful listener – in fact deficient sound quality has been shown to result in frustration, even anger. The experienced listener is aware of incredibly small Sound Pressure Levels that in many cases are beyond the conventional range of hearing."

"I have worked for some time on the designs for a new range of microphones – the concepts of which are actually already being implemented in our own Rupert Neve Designs 5088 Console – namely utilizing Discrete Single-Sided Circuits and my custom designed transformers."

"This new approach to analogue sound processing needs extreme care in its manufacture and meticulous alignment of the embedded discrete op-amps and the delicate microphone elements. The association with Siwei Zou and sE will provide an ideal partnership in terms of their masterly and enthusiastic commitment to innovation and quality that have also been my own hallmarks for more than 50 years."

Siwei Zou

"I have, for many years, admired the work of Mr Neve, and now that we have a chance to work together I am able to realise a quality level in microphone technology that no other manufacturer to date has managed to achieve. The excellence we have worked so hard to achieve in production, design and capsule technology at sE, coupled with the best transformers this product area has ever seen, plus new cutting edge circuit board design, which surpass anything I have ever heard before, means we are now able to produce high end mics, at a fraction of the cost of some other high end brand models, but which have a sound and performance quality the likes of which this market has never seen before. This is a truly exciting time for sE and me personally"





SE RIBBON & USB



Ribbon - R1

The sE Ribbon R1 is a beautiful piece of engineering. Its single 'Figure of 8' polar pattern is derived from an incredibly fine 2 micron Aluminium membrane. As such it has a higher-than-normal frequency roll-off (at around 7KHz), and greater sensitivity, producing a more open and natural sound than you'd expect from a ribbon mic. The R1 is ideally suited to recording electric guitar cabs, overhead drum mic-ing, brass and woodwind instruments, string sections and for commercial broadcast and voice-over.

The R1 comes with a 10 year replacement capsule guarantee (see web site for details), and packaged with its shock-mount in a full flight case.



Ribbon - RT1

The Tube Ribbon is one of the first of its kind. Launched in early 2006 as a prototype it was the world's first Ribbon mic with a tube. It builds on the hugely successful sE Ribbon, considered one of the best mics in its class and used in Pro Studios the world over, but adds a silky warmth to the 'standard' sE Ribbon sound. It ships with full shock mount and Black Aluminium flight case and sE mic cable and also comes with a 10 year capsule replacement warranty. Applications are the same as the sE Ribbon.



USB2200a

Based on the studio standard sE2200a, the USB2200a records via USB directly to your DAW and has several features unique from competitor USB mics including, zero latency headphone monitoring, mix control playback/record path, 10dB pad, bass cut and simultaneous analogue/USB feeds.

The USB2200a also has a proprietary chip and software set which deals with capsule noise when transforming the 5v power supplied via the USB cable to power the capsule, by first removing noise and spikes from the current. This noise would normally be amplified, which is why other USB mics are too noisy to use in a professional environment.

No other USB mic on the market offers this kind of specification, and it makes a huge difference to the performance for studio use. The chip also delivers true plug in and play capability, automatically configuring the mic to the host as it is connected.



USB1000a

With a half inch capsule, this USB only mic offers unprecedented recording quality in its price range due to the proprietary chip and software set, developed by sE, which deals with both noise and software drivers.

Like the professional standard USB2200a, the chip set helps with transforming the 5v power supplied via the USB cable to power the capsule, by first removing 'noise' and undesirable spikes from the current.

This 'noise' would normally be amplified, which is why USB mics have, until now, been largely too noisy to use in a professional environment. This mic is also truly plug-in-and play.



Chris Porter, Producer
George Michael, Pet Shop Boys, Tina Turner, Cliff Richard

Reflexion Filter

The 'RF' is basically a portable device for recording live sources with reduced room ambience. It is an advanced composite wall which is positioned behind any microphone with a variable position stand clamp assembly which ships with the product. The main function is to help obtain a 'dry' vocal or instrument recording. This is especially useful in studios without proper acoustic treatment, but can also be used to help record takes in control rooms, where the performer also has to operate the recorder, or in rehearsal studios to reduce ambient noise.

The various layers both absorb and diffuse the sound waves hitting them, so progressively less of the original source acoustic energy passes through each layer. This reduces the amount of energy hitting un-treated walls and other surfaces so there is less of the original source reflected back as unwanted room ambience to the mic. The Reflexion Filter also helps prevent any reflected sound reaching the back and sides of the mic. Its shape and size have been carefully tested to maximize absorption while keeping 'coloration' down to only around 1dB, and leaving the microphone's polar pattern unaffected.

All in all, it's a very clever and desirable piece of kit. It allows you to record vocals, guitars etc with a 'drier' sound without having to have an acoustically treated room. It's portable. It uses state of the art materials. It works... and it's a fraction of the price of acoustically treating your studio environment!

Instrument Reflexion Filter

The Instrument Reflexion Filter is designed on the same principles as its bigger brother the Reflexion Filter. It forms a small curved wall of punched Aluminium, with 3 layers of polyester fibreboard separated with air gaps, which helps reduce room ambience and isolates the mic from ambient noise. The IRF has a hole punched through it to allow a pencil mic, or SM57 etc to be fixed through it, especially useful when close micing drums (to help with track separation) or overhead micing. The IRF is ideal for use with Pianos, Drums and wind instruments, where the RF is used for vocals and guitars

IRF Studio Kit

This is 5 pieces of IRF in a full flight case for touring drummers, orchestral applications and pro studios with multiple instrument micing applications.







Pro Stands

We were always being asked by our high-end clients where they could get a true professional quality mic stand. When we started to look around to source decent stands we found that the one or two companies in the USA making what we would consider to be pro quality studio stands were charging thousands of dollars for each stand... completely over the top pricing!

So, we went back to the old school designs and built stands made to last, stands made to take heavy loads without wobbling around with your very expensive mic on them, stands made to the standards we apply to all of our products.

The result, a series of stands for project and commercial recording studios, and for orchestral use, that meet the best standards in the world, but at a fraction of the price. We think you'll approve!



Dual Pro Pop Screen

Another first from sE... simple, but highly effective. This is our professional solution to the problem of needing different pop shields to suit vocal performances. The device has a strong goose neck with both a standard fabric membrane and our pro metal pop shield on a hinge mechanism.

You can use either separately or both simultaneously depending on the application.



Pop Screen

The unique metal screen is not simply perforated, but louvered at a slight angle to redirect ultra-low frequency breath blasts which are pushed past the side of the screen. This process does not attenuate high frequencies, as fabric screens do, and leaves the vocal performance unaffected but without annoying low frequency "pops".

It's also built to last and will take a lot more abuse than a traditional fabric shield, so its great for commercial applications.

SE TECH SPECS

SE1a

Frequency Response: 30Hz-20kHz
Sensitivity: 10mV/Pa - 40 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Diversity
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 17dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 137dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

SE2a

Frequency Response: 30Hz-20kHz
Sensitivity: 10mV/Pa - 40 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Omni, Hypercardioid
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 17dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 137dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

SE4

Frequency Response: 20Hz-20kHz
Sensitivity: 12.59mV/Pa - 38 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Hyper Cardioid, Omni
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 14dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

sE1000a

Frequency Response: 20 -20,KHz
Sensitivity: 20mv/pa-34 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid
Impedance: ≤ 50 Ohms
Equivalent Noise Level: 15 dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

SE2200a

Frequency Response: 20Hz-20kHz
Sensitivity: 14.1mV/Pa -37 ± 1.5dB
Polar Pattern: Cardioid
Impedance: ≤ 150 Ohms
Equivalent Noise Level: 17dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 130dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

SE2200T

Frequency Response: 20Hz-20kHz
Sensitivity: -33dB+1 dB (0dB=1v/pa 1000KHz)
Polar Pattern: Cardioid
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 16dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 130dB
Power Requirement: PSU included
Connector: 7-pin

Z3300a

Frequency Response: 20Hz-20kHz
Sensitivity: 12.6mV/Pa - 38 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Omni, Figure 8
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 16dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 130dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

4400a

Frequency Response: 20Hz-20KHz
Sensitivity: 14.1mv/pa-34 ± 1dB
Polar Pattern: Cardioid, Figure 8, Omni, supercardioid
Impedance: ≤ 50 Ohms
Equivalent Noise Level: 17dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 130dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

T2

Frequency Response: 20Hz-20KHz
Sensitivity: 28mv/pa-31 ± 1dB
Polar Pattern: Cardioid, Figure 8, Omni, Supercardioid
Impedance: ≤ 50 Ohms
Equivalent Noise Level: 14dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 140dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

ICIS

Type of tube: 12AX7
Frequency Response: 20Hz-20kHz
Sensitivity: 14.1mV/Pa - 37 ± 1dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 20dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

Z5600a II

Frequency Response: 20Hz-20kHz
Sensitivity: 14.1mV/Pa - 37 ± 1dB (0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Omni, Figure 8 and 6 intermediate stages, all selectable on AC power unit.
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 15dB (A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: External Power Supply Unit (PSU) included.
Connector: 8-pin army connector

GEMINI II

Frequency Response: 20Hz-20 kHz
Sensitivity: 12.6mV/Pa - 38 ± 1dB (0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 16dB (A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: External PSU included.

RIBBON - RI

Type: Passive
Element: 1.8μ aluminum ribbon
Frequency Response: 30Hz -15kHz +/- 3dB
Sensitivity: -54dB 1v/pa ±1dB
Polar Pattern: Figure of 8
Impedance: ≤ 300 Ohms
Max SPL: 135dB
Connector: 3-pin

RIBBON TUBE - RT1

Type of tube: 12AX7
Equivalent Noise Level: 17dB(A weighted)
Frequency Response: 20 -15,000 Hz
Sensitivity: 8mv/pa-42 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Figure of 8
Impedance: ≤ 300 Ohms
Max SPL for 0.5% THD@1000Hz: 130dB
Connector: 8-pin army connector

RUPERT NEVE - RNR1

Acoustic Operating Principle: Electrodynamic pressure gradient with active electronics
Generating Element: 2.5-micron aluminum ribbon
Polar Pattern: Figure 8
Frequency Response: 20Hz - 25KHz
Sensitivity: -32 dB (referenced 1v/pa ±1dB)
Equivalent Noise Level: 15dB(A weighted)
Output Impedance: 200 Ohms balanced
Rated Load Impedance: 1000 Ohms
Max SPL: >135dB
Connector: Male XLR 3 pin (Pin 2 Hot)

GM10

Frequency Response: 20 -20,000 Hz
Sensitivity: 24mv/pa-32 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid
Impedance: ≤ 50 Ohms
Equivalent Noise Level: 10dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 135dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

HI

Frequency Response: 20Hz-20kHz
Sensitivity: 2 mV/Pa at 1 HZ into 1 Kohm
Polar Pattern: Cardioid
Impedance: ≤ 200 Ohms
Equivalent Noise Level: 18dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 145dB
Power Requirement: Phantom power 48V±4V
Amplifier Dynamic Range: 127dB
Maximum Output Voltage: 1.4V
Connector: 3-pin

USB2200A

Frequency Response: 20Hz-20kHz
Sensitivity: 14.1mV/Pa -37 ± 1.5dB
Polar Pattern: Cardioid
Impedance: ≤ 150 Ohms
Equivalent Noise Level: 12dB(A weighted)
Max SPL for 0.5% THD@1000Hz: 130dB
Power Requirement: Phantom power 48V±4V
Connector: 3-pin

Technical parameters;

- 1.USB 2.0 USB1.x compatible
- 2.Stereo D/A and A/D conversion
- 3.Zero latency Headphone monitoring
- 4.Gain Control built in
5. At THD > -90db, SNR 96db (D/A conversion)
- 6 At THD > -90db, SNR 92db (A/D conversion)
- 7.Adaptive 44.1 to 48KHz sampling frequency

USB1000A

Frequency Response: 20Hz-20kHz
Sensitivity: 12.59mV/Pa - 38 ± 2dB(0dB=1V/Pa 1000Hz)
Polar Pattern: Cardioid, Diversity
Equivalent Noise Level: 12dB(A weighted)

Technical parameters;

- 1.USB 2.0 USB1.x compatible
- 2 At THD > -90db, SNR 96db (D/A conversion)
- 3 At THD > -90db, SNR 92db (A/D conversion)
- 4.Adaptive 44.1 to 48KHz sampling frequency



SOUND ENGINEERING

It's in the detail.



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