



More Vividness

The upstart US-based manufacturer Roswell Pro Audio has set out to make a name for its microphone creations in Europe. In our review, we wanted to find out what their affordable large diaphragm microphone called Mini K47 has to offer in both solo use and as a "matched pair" stereo setup.

by Silvie Frei / Translated by Julian David

Roswell Pro Audio? The name does still seem a bit extraterrestrial to us, but the faces behind the brand are certainly no strangers to the pro audio scene. The founders of Roswell Audio are also the heads behind the online audio magazine

recordinghacks.com and the online shop microphone-parts.com offering accessories and replacement parts for microphones as well as modified versions of select microphones. As a result, the founders have had the opportunity to gain the necessary technical expertise to now start their own microphone brand.

Four large diaphragm condenser microphones are currently in the portfolio of the young brand and the compact Mini K47 is the least expensive one so far costing only 307 Euros. Coming in at 669 Euros, the matched pair runs just a little more than double the price, but customers can rest assured that



both microphones match each other as closely as possible with respect to the frequency response and sound - an ideal prerequisite for a consistent stereo image when used as a pair.

Every microphone comes with an elastic shock mount and a swivel mount in the box (Note: thread adapters for European mic stands are not included). A padded faux leather storage pouch is also included.

The number "47" in the product name of course harks back to the iconic Neumann U47, which served as inspiration for the capsule design of the Mini K47. Unlike the Mini K47 however, the U47 is a tube microphone with a variable

polar pattern (omni/cardioid), which is why the Mini K47 cannot be considered a straight clone. Nevertheless, we are excited to find out what such an affordable microphone sounds like and what it brings to the table in real world applications.

Small Large Diaphragm Microphone

On the outside the Mini K47 does not make a grand entrance and looks like many modern large diaphragm condenser mics. With a height of just 15 centimeters and a diameter of 4.4 centimeters it is of course a bit smaller and lighter than most competitors. It comes in a black steel housing with a

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Das Magazin für Aufnahmetechnik

Roswell Pro Audio Mini K47

- Natural, crisp, and open sound
- Well suited for voices and all acoustic instruments
- Very well suited for small acoustic ensembles as a matched pair
- Very good measurement results
- Very good value for the money given the great sound quality

Particularly the manufacturers of other budget-friendly microphones will start breaking a sweat with the Mini K47 by Roswell Pro Audio now being available. This is a top-notch sound for very little money.

€ 307,- (einzeln); 669,- („matched Pair“) unverbindlicher Richtpreis inkl. MwSt.

silver wire-mesh head basket covering the upright capsule. The silk-screened cardioid pattern symbol (the Mini K47 has a fixed cardioid pattern) as well as the Roswell Pro Audio logo mark the front of the side-address pick-up. The included shock mount seems of very high quality and safely secures the mic in posi-



The Mini K47 is a large diaphragm condenser microphone with a fixed cardioid pattern. Only the front diaphragm of the dual-diaphragm capsule is gold plated, polarized and wired into the circuit – the rear diaphragm remains passive.

tion. For a stereo setup however we would suggest buying an off-the-shelf stereo positioner if you should not already have one in your mic accessories locker.

Capsule Design Inspiration

For the capsule design of the Mini K47 the engineers at Roswell Pro Audio were indeed inspired by Neumann’s legendary U47 model, but they also drew from their many years of experience in modifying and optimizing microphones. As a consequence, the K47 has a dual-diaphragm capsule even though a single diaphragm would have been sufficient to achieve the cardioid pattern. Roswell Pro Audio’s own Matthew McGlynn explains that the back diaphragm of the Mini K47 is neither gold-plated nor actually wired up as part of the capsule. It simply serves to shield the back of the polarized diaphragm in the front.

According to the manufacturer the microphone has a transformerless circuit design, which has the advantage of a lower self-noise and a higher sensitivity compared to other designs. As such, the Mini K47 is said to be able to compete with significantly more



The Mini K47 is available as a matched pair and delivers a natural, lively, and almost classically euphonic sounding image in an XY configuration.

expensive microphone when it comes to the sound. We set out to measure what exactly that might mean in numbers:

Measurement results

The Mini K47 actually delivers very good results across the board in our lab. The matching quality is also solid, although both microphones still show small to tiny differences in the measurements. As an example, the sensitivity of one microphone comes out at 20.4 mV/Pa, while the other measured at 22.2 mV/Pa, which is both in the range of the desired sensitivity for condenser microphones (to present a good operating point for typical mic preamps). Nevertheless, these differences are not big enough to require an individual gain staging of each microphone in the stereo pair.

With regards to the signal-to-noise ratio on the other hand both measurements are indeed very close: 76.3 and 76.8 dB respectively stand testament to a clean, low-noise circuit design.

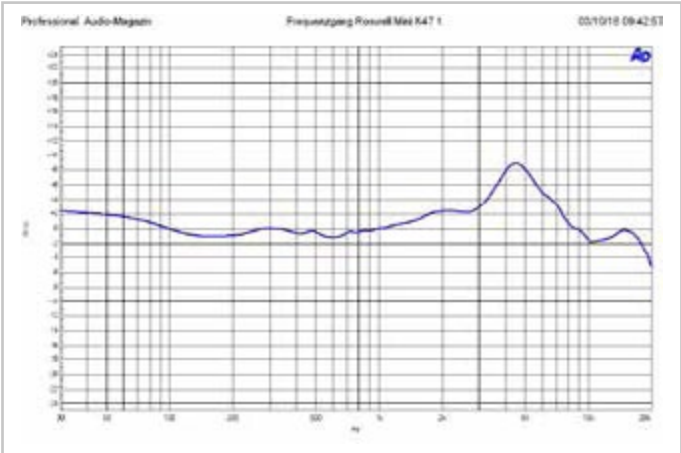
The frequency response curves of the two microphones are almost identical and match very well. Both exhibit a strong high frequency boost with a maximum of 9 decibels at 5 kHz. The presence range (around 1 to 4 kHz) gets a slight boost at the upper extreme as well, but past the peak at 5 kHz the curve

quickly drops back down to zero and then continues falling past 12 kHz. Consequently, high frequency content such as transients and sibilance remains relaxed and inconspicuous, which we were able to confirm in our real world tests.

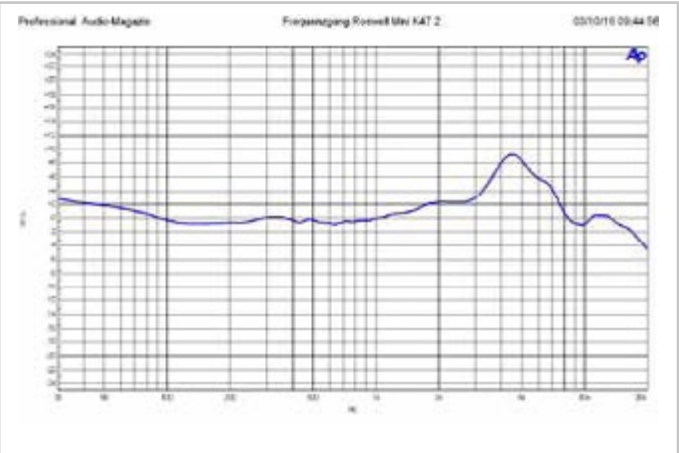
Crisp, vivid sound

Upon review of the recordings we had captured with a matched stereo pair of the Mini K47 in an XY configuration (including folk vocals and guitar accompaniment, various a capella vocals, and speech) with our trusty Lakepeople F355 microphone preamp and our Mytek Digital 8X192 A/D-D/A converter, we notice a distinct clarity, vividness and crispness in the tracks. It’s also noteworthy that the different signals blend together in a very natural way, yet their characteristic frequency ranges are sufficiently defined.

In solo use the Mini K47 delivers a natural, not overly intimate, but full-bodied tone with highs that are neither uncomfortably hyped nor dull or overly dark. Even so, the top end of our soprano vocal is characterized by an openness and a subtle sheen without sharp sibilance or other difficult, harmonics-rich signals becoming too accentuated. Signals with more low-frequency content, such as an acoustic guitar, benefit from added presence



As alike as two peas in a pod: the frequency curves of our stereo pair are extremely similar to facilitate a coherent and uniform sound.



and girth. In the case of the acoustic guitar both the attack of the strings and the instrument’s body resonances are rendered in a natural and harmonious balance. Voiceover and vocals are such a good representation of the originals that talents get a “sounds like me” feeling upon playback. The proximity effect of the Mini K47 is relatively strong, but it doesn’t come across as overbearing so that it can be used quite effectively to sculpt the sound of vocals.

The fine resolution and the good transient response (particularly for a large diaphragm condenser) of the Mini K47 indeed yield an expensive, high-quality sound. In this respect, this affordable microphone can take on rivals that would typically cost at least twice the money. That’s quite an accomplishment.

Application recommendations

From the lowest string of an acoustic guitar up to the highest note of a female singer, from a long, sustained swell to an abrupt, percussive strum on the guitar strings – the Mini K47 manages to capture all these signals with confidence, graceful contours, and a natural liveliness. As such, a single Mini K47 could well be the ideal “one fits-all” solution for just about any vocal or voiceover talent, as well as acoustic instruments that would call for a close-mic application. For those of you looking for a more unemotional recording with more neutrality and dullness in order to then throw a bucket of effects at it, you should probably look for a different microphone delivering a more intimate

and sterile sound. If you however desire a vivid recording with natural acoustics and you have a good recording space at your disposal, then the Mini K47 with its downright classic, graceful sound is definitely worth considering.

We also highly recommend the matched stereo pair for small acoustic ensembles and singers with stringed instrument accompaniment. The couple delivers a lively and coherent stereo image that supports the unique characteristics of the instruments and voices within the

space in a very natural way.

Conclusions

Kudos: with the Mini K47, Roswell Pro Audio comes out the gate strong and enters the European audio scene with a great-sounding product that doesn’t break the bank. The expertise and attention to detail that the founders have gathered in their many years as mic-mod geeks has come to fine-sounding fruition.

STECKBRIEF

ROSSELL PRO AUDIO MINI K47

Vertrieb	Microphone-Parts.com 125 S. Main St. 118 Sebastopol, CA 95472, USA microphoneparts@gmail.com www.microphone-parts.co.uk
Typ	Großmembranmikrofon
€	307 (einzeln), 669 (matched pair)

TECHNISCHE DATEN

Abmessungen D x L [mm]	150 x 44
Gewicht [g]	325
Stromversorgung	über XLR/Phantomspannung

AUSSTATTUNG

Mikrofontyp	Großmembranmikrofon (Membrandurchmesser: 34 mm)
Richtcharakteristik	Niere
Vordämpfung	-
Hochpassfilter	-
Windschutz	-
Halterung	elastische Spinne, unelastische Halteklemme
Anschluss	XLR männlich

Anzeige	-
Bedienelemente	-
Aufbewahrung	Vinyl/Kunstleder-Etui

KLANGEIGENSCHAFTEN

Frischer, lebendiger, offener Klang, für Niere vergleichsweise räumlich, feine Auflösung, gutes Impulsverhalten, dynamisch, besitzt einen edlen Schimmer. Nahbesprechungseffekt deutlich ausgeprägt und gestalterisch nutzbar. Sehr gut für Stimmen und akustische Instrumente geeignet.

MESSWERTE

Empfindlichkeit [mV/Pa]	?
Geräuschpegel-abstand [dB] bezogen auf 4 dBu	?

BEWERTUNG

Ausstattung	sehr gut
Bedienung	sehr gut
Messwerte	
Klang	sehr gut - überragend

Gesamtnote

Oberklasse sehr gut

Preis/Leistung

überragend

professional audio^{04/16}

Aufnahmen · Abmischen · Produzieren

Preis/Leistung

ÜBERRAGEND

Roswell Pro Audio

Mini K47