



Schoeps SuperCMIT 2 U

**Is it a cardioid? Is it a shotgun?
No... It's a super-shotgun.
Can the new Schoeps SuperCMIT
digital microphone defy physics
with its DSP and focus harder
than Karate Kid?**

THE SCHOEPS SUPERCMIT 2 U is an unusual shotgun microphone. It incorporates an additional, rear-facing capsule behind the usual one and some DSP. Than main aim is to increase directivity – make it even more shotgun than a shotgun – and this is achieved most impressively even at mid and lower frequencies, which is something most ordinary shotguns fail to do. It's not their fault, it's just physics.

As a bare microphone, the output is digital. It complies with the AES42 Mode 1 standard for digital microphones. Manufacturers such as RME, Sound Devices, and maybe others by the time you read this, already make interfaces and recorders that use the AES42 standard, but for those that don't, there are optional conversion boxes available from Schoeps.

The microphone was launched at the ProLight + Sound show earlier this year, and by the end of the show there were a number of enthusiastic endorsees answering 'Schoeps' whenever somebody asked 'have you seen anything good yet?' The echo-ridden, rumbly, and crowded aisles were ideally suited to demonstrating this new mic.

Cache On Delivery

I have been a Schoeps user and fan for about 20 years now, and bought a pair of CMIT mics as soon as they were available, probably three or more years ago now (how time flies). I heard about the new digital SuperCMIT mic a few months ago, and listened to the demo files that Schoeps had put on its website immediately. I was quite stunned at how effective the SuperCMIT could be at

reducing background noises, so ordered one immediately. I have been using the review model for the last couple of days, and here are my comments.

On a practical note, it should be pointed out that the SuperCMIT mic is about an inch longer than the regular analogue model, which in most physical respects it mimics. It fits in the Rycote suspension and windgag that are made for the regular CMIT 5, so is pretty much a straight replacement job. This is obviously not the case electronically. I wanted to plug the SuperCMIT into my Deva 5.8 recorder, which has AES digital IPs. This is in fact easily achieved by using the Schoeps-made adaptor box PSD 2U. This small and light box has a pair of XLRs on it, for AES 42 connection to the SuperCMIT mic (AES 42 includes 10v phantom power for the mic), and for AES 3 connection to a recorder. It also has a DC power



IP socket (mine had a coaxial plug on it, but it can also be supplied with a four-pin HiRose socket). On the one hand this is an extra box, but on the other it is pretty small, weighs next to nothing, and is entirely devoid of any controls, it just does its job.

The AES stream which the PSD 2U box outputs is made up of two channels. Channel 1 is the processed, SuperCMIT signal, and channel 2 is the regular CMIT output, with no processing applied. It is most useful, especially when testing for this piece, to have both signals available on the outputs. To be able to fade between before and after the digital processing is most enlightening, and makes it abundantly clear as to quite what the processing is doing. So far as I could tell, the regular, unprocessed, CMIT signal

THE REVIEWER

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if you have ever tried to EQ out the reverb from a lively room, and then switched the EQ in and out, it was similar to that. Preset 2 processing is perfectly useable, but I would be slightly reticent to use it on, say, a TV drama. For current affairs or sport I suspect it would be more than OK.

One last point regarding levels. Bear in mind that since the mic is digital, and has to 'deal with' a dynamic range from a whisper to a 747 taking off, the output level of regular speech with the mic on a boom is not in fact using much of the mic's dynamic range.

Conclusion

The Schoeps CMIT is a most effective tool, and will be, I suspect, the first in a line of mics that will utilise the Illusonic processing system in the future. The preset 1 processing is effective, with very few artifacts, and could be used pretty much all the time. Preset 2 is useable, but with slightly more noticeable artifacts. This is exciting technology

indeed, and I for one can't wait to be using it a lot more in future. It is simple, light, tiny, and clearly effective. What can they possibly do next? **▶**

INFORMATION

Ⓢ GB£2,640.00 (exc.VAT) introductory price.
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▶ is exactly what I have been used to (spoiled by) with my analogue CMIT mics over the past few years. The only difference that I am aware of is that, presumably on account of the A to D within the digital SuperCMIT, even the unprocessed signal is delayed (by 1.6ms I understand). 1.6ms is roughly equivalent to time taken for sound to move about half a metre, so is pretty much irrelevant. Bear in mind also that even analogue sources get A to D somewhere in the chain to get them to a digital recorder or mixer, so again, it's insignificant.

There are switches on the SuperCMIT for Hi Pass, and bass cut, and a third switch that switches between two levels of processing, referred to as levels 1 and 2.

Levelling Up

Preset 1 works very well indeed, there is some additional (processing time) delay, but nothing to worry about. I did a lot of listening whilst switching between the unprocessed signal and preset 1 and 2 processed. I had to balance the levels of all three signals quite carefully, as I realised that if the presets change, one can perceive that as a change in the sound. Differences in sound quality are very subtle indeed, and seemed to me to be all at the top end. The higher frequencies seem to be just a little softer than the unprocessed signal. Mixing between the unprocessed and preset 1 processed was quite like mixing between two similar mics, where one of them is naked, and the other has a full windgag and Windjammer. There is a very slight sense of something missing 'up top'. The big plus, however, is that background and atmos type noises are reduced by a good few dBs. The difference in BG noise levels is quite noticeable, and is of course most welcome. One notable success was the noise of the fridge in my kitchen, and another the off-mic chatting of a bunch of crew whilst I was listening to the mic being used on set. This impressed me greatly.

Preset 2, more extreme, cuts out a lot more background noise, but the effects of the processing are a little more obvious. The delay 'feels' like it is slightly greater (Schoeps claims about 5ms) and some speech sounded just a bit more grainy. It also sounded to me like a strange EQ thing had occurred. It's difficult to describe, but