Schoeps CCM22

It's the latest in a series of microphones that together make one the most complete collections available. JON THORNTON discovers more to the 'open' cardioid than meets the eye and many more applications than just the obvious ones.

The CCM 22 from Schoeps is the latest addition to its range of compact microphones. These differ from the Colette modular range of interchangeable capsules and amplifiers in that each microphone has a capsule and a miniaturised amplifier combined in an exceedingly small package, but there is no option to change capsules.

Two variants of the CCM microphone range are available. The 'L' variant, as supplied for the review, features a detachable cable that mates with the microphone via a locking Lemo connector, with a standard XLR connector on the other end of a 5m cable. The Lemo connector, when mated to the microphone, also serves as a pivotal part of a mounting system that works in conjunction with a plethora of available accessories — more of which later. The alternative 'U' version is physically smaller and lighter than the L variant (7mm shorter than the equivalent L version) and has a thicker, more rugged captive cable. Both variants are capable of working with phantom power supplied at 12 or 48V.

The CCM 22 is a small diaphragm, fixed pattern capacitor microphone whose pickup pattern is designed to be something between the very wide cardioid pattern of the CCM21 and the more traditional cardioid pattern of the CCM4. This has been introduced at the request of end users, who liked the sonic character of the CCM21, with its minimal proximity effect and very neutral, uncoloured sound off-axis, but desired a little more in the way of rear suppression than the CCM21 offered. The result was the new capsule featured in the CCM22, which is also available as the MK22 capsule for the Schoeps Colette series, and is dubbed the Open Cardioid.

Published specifications show a frequency response that is fairly flat between 50Hz and 20kHz with a very slight but broad HF lift between 7 and 15kHz and a gentle roll-off below about 200Hz to 1dB down at 50Hz. Quoted sensitivity is 14mV/Pa and equivalent noise a respectable (for a small diaphragm capacitor) 14dB A-weighted.

A quick test with a single CCM22 on speech shows a nice, neutral sound with just a hint of HF emphasis that adds clarity rather than harshness to the sound. Proximity effect isn't entirely dialled out, but it is very slight and actually quite pleasant in its effect, resulting in a sound that is simply a little fuller rather than overly 'lumpy' in the low frequencies. Off-axis response is incredibly smooth and consistent across a broad frequency range. Overall response is quoted as being only 5dB down at the 90 degree point, and this is borne out in testing — there's slight HF dulling at this point but nothing truly objectionable, giving the microphone an extremely wide, almost hemispherical pick-up. This isn't at the expense of directionality though as there's still a healthy 16dB of suppression of rear incident sound.

Each CCM22 is supplied with a fixed clip that allows it to be mounted on a conventional microphone stand. The clip itself actually snaps on to the body of the Lemo connector and is quite a snug fit. This can cause some concern, particularly when removing it. It's not that it's a difficult job, but you do feel slightly twitchy about exerting force on such a critical part of the microphone.

The pair of CCM22s supplied for review also came with an STC22 mounting bar. This allows the microphones to be spaced 21cm apart and at an angle of 110 degrees for ORTF-style stereo recording. With no supplied instructions, fixing the microphones in place proved a little perplexing at first, as the bar simply has a couple of indented channels at either end. Again, it relies on you taking a deep breath and pushing the LEMO connector firmly into position, at which point it clicks into place, giving a very sturdy but compact stereo bar with a central spigot for attaching to a microphone stand.

Although possibly not what the folks at Schoeps had most clearly in mind for the unit, the first real task was as an overhead pair on a drum kit using this STC22 ORTF bar. The result was a very focussed sound, with a nice wide image that didn't suffer at all from the fizziness on cymbals that small diaphragm designs sometimes do. Granted, there wasn't quite the LF extension of a pair of 414s in similar positions, but the overall sound was much more defined and instantly useable.

A different day and a different venue saw the same stereo bar put to good use as the main stereo pair for a gospel choir. Here the width of the pickup pattern, coupled with good rear rejection, really helped in making sure that a fairly wide stage was picked up with extremely good left/right separation, and good rejection of what was quite a splashy hall.

Finally, the CCM22s were set up as two spot microphones on an upright piano, for high and low strings respectively. Their small size makes positioning in such a situation very easy, but their size is only half the story. Rarely have I found a microphone that makes this, one of the trickiest of instruments to record, so utterly straightforward. It's partly to do with that very broad directionality, and partly to do with the very gentle proximity effect, but in this application more than any of the others I tried, the CCM22s really stepped up to the plate and delivered. Their overall tonality when used close up is slightly brighter, although not unpleasantly so, and without sounding at all voiced — just a nicely detailed sound to the top end. Any perceived lack of weight at the low end also disappears smoothly when the microphone is nudged that little bit closer to source, but without ever sounding woolly or overblown.

As an addition to what is already an extensive range, the CCM22 or MK22 capsule is unusual in that it fills a very distinctive niche. By simply reading the description, this might not be a niche that you initially feel the need to fill. But once you use start using them, you realise that it's not so much of a niche as a gaping chasm in your microphone arsenal. For me, they definitely fall into the category of 'hard to give back'.

PROS Eminently useful microphone with good balance of wide pickup and rear rejection; can use the vast range of mounting accessories offered by Schoeps; equally good at close and distant work.

CONS I'm still a little nervous about the mounting system using the connector...

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