

Audio-Technica AT4021 & 4022

You can't have too many stick mics but not all are created equal. **JON THORNTON** rubs two together to make sonic magic.



The Audio-Technica 4021 and 4022 are relatively recent additions to the company's 40 series product range. While there are existing small diaphragm capacitors in the range, the key difference here is that the capsule is a back-electret design rather than externally polarised. The 4021 has a fixed cardioid response, while the 4022 is omnidirectional. Other than the ports on the side of the cardioid microphone, they are pretty much identical visually.

Finished in black, both feature a switchable high pass filter (80Hz, 12dB/octave) and a -10dB pad. In common with many other stick designs, you'll need the appropriate implement (ball point pen/tweaker/paper clip etc.) to operate these — but I suppose this does keep them out of harm's way. What I do like is the fact that they are located on the body towards the front of the microphone, meaning that you can still see and operate them when the mic is fixed in a clip. Both microphones have respectable noise figures (13dB SPL for the 4022 and 14dB SPL for the 4021) and nice healthy output levels with a quoted sensitivity of just shy of 20mV/Pa for both microphones and nothing I heard in testing would seem to contradict these figures.

Overall dimensions for both microphones are 144mm in length and 21mm in diameter at their widest point. Build quality is excellent, and the looks are neat and understated, with just a little hint of 'DPA-ness', especially at the front end. They ship in a flexible pouch with a fixed clip and foam windshield.

Initial tests were carried out using an acoustic guitar (steel strung) as the source, with a Millennia HV3-C preamp. Starting with the 4021 (cardioid), first impressions are of a tight, focussed sound — ever so slightly forward in the high frequencies, but never in a manner that seems unduly 'fizzy' or overly hyped. Transient response is good — managing to capture the 'edge' of both plucked and strummed string sounds, and there's an exceptionally good sense of low

frequency weight to the sound that adds substance without sounding muddy.

One thing that does immediately stand out is the pickup pattern, which while it's a little more coloured off-axis than I might prefer, it does give very strong rear rejection across a wide frequency range. This probably contributes to that 'tightness' in the sound mentioned earlier, but perhaps ultimately at the expense of the low frequencies sounding a little closed in.

Swapping the 4021 for the omnidirectional 4022 in the same application changes things in this respect. Although low frequency extension is good in both mics, the 4022 sounds a little more open and natural in the low end, but just a bit more forward in the high frequencies when used close to the source. Moving over to a drum kit (single overhead as no stereo pair was available) — and these characteristics stay largely the same. That slightly more forward HF on the 4022 actually sounds better to my ears in this application, but lacks the tremendous focus and room rejection that the 4021 offers. Still, having that choice can only be a good thing...

As a comparative reference I decided to A/B the 4021 against an AKG C451 re-issue — again as a single overhead on a drum kit. Here both of the Audio-Technica contenders won hands down with regards to reach and low frequency extension although the 451 did sound slightly smoother on cymbals. But this is a minor enough issue that, if used as an overall kit pair rather than a fill-in for a multimic setup, I'd probably choose the LF weight of the Audio-Technicas over the 451. And that's quite a compliment.

As a final test, the 4021 was given a brief trial in front of a small guitar cab (Orange Tiny Terror Combo) primarily to see how it handled high SPLs. This wouldn't be my favoured miking approach here, but what I did get was a wonderfully solid sound, which with a bit of shifting the mic off axis also smoothed out to deliver just the right amount of grit without sounding tinny. And in terms of SPL

handling, well nothing untoward here at all, even without engaging the pad.

I've long been a fan of Audio-Technica's large diaphragm capacitor microphones particularly models at the more affordable end of the spectrum, such as the 4033, which also feature back-electret capsules. You get an awful lot of bang for your buck here and I've always felt that there's a reassuring honesty about what these mics promise and what they deliver. They just get on with job quietly and effectively without ever really drawing attention to themselves.

This admirable quality is equally evident in these two new additions. Beneath their rather anonymous, almost stealth-like exterior, lurk some extremely capable and flexible microphones. So if they've slipped under your own personal radar, you would be well advised to check them out. Compared to the competition in their price range they will almost certainly surprise you. ■

PROS Solidly built; great LF extension; excellent focus and rear rejection (4021); sensible switch positioning.

CONS Bass can sound a little closed in when used close to source (4021).

EXTRAS Audio-Technica now has range of windshields with the Soft-Zep, Whisper Series and Fur Windssock lines.



For demanding situations, the super-light Soft-Zeps provide protection against extreme wind noise for handheld, standmount and boom-mounted microphones. The design accommodates mics between 19mm and 24mm in width and a choice of medium, large or extra-large types is available to suit shotgun microphones of different lengths.

The Whisper Series shields are ideal for camera-mounted microphones as well as stand and boom-mounts. The encapsulated design is a one-size-fits-all type in terms of mic width and a total of seven different length options allow use on handheld reporter mics to shotguns.

Affordable and easy-to-use, the Fur Windssocks are designed for use in light to normal windy conditions, and to fit over existing foam, metal or plastic windshields for greater protection. Secured with a Velcro fastening, the Fur Windssocks are available in seven sizes, including a lavalier version.

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