

TechZone Stellar X2

Cardioid Capacitor Microphone

Looks can be deceiving, and in the case of this affordable mic, so can price tags!



PAUL WHITE

It never ceases to amaze me that microphones can look similar, have nearly identical technical specifications and similar internal workings, yet sound really quite different. Outwardly the Stellar X2 looks much like any other large-diaphragm microphone, other than being slightly smaller, at just six inches long and 1.725 inches wide, but most departures from the norm are internal. It is manufactured by TechZone Audio Products, a small company located in Torrance, California, and the mic is supplied in an aluminium case with a shockmount, a foam wind shield and a soft storage pouch.

Inside the black, powder-coated, Chinese-built shell is a custom-built, centre-terminated brass capsule skinned with Japanese Mylar. This is a K67-style design, and measures 34mm in diameter. We're told that high-frequency attenuation is employed to balance the harshness commonly associated with this style of capsule, the aim being to achieve very smooth highs. The hand-built, transformerless JFET circuit includes tight-tolerance German WIMA film capacitors and other highly specified components, while the PCB has gold-plated tracks to optimise conductivity. The quality control process includes a frequency sweep test, a visual inspection and a self-noise test.

Unlike many cardioid condenser microphones, the Stellar X2 does not have a significant presence peak; there's just the merest hint of a hump at 4kHz followed by a 1dB dip at maybe 6.5kHz, then another 1dB hump in the region of 11kHz.

The rest of the response is nominally flat down to around 30Hz, below which the lows roll off gently. Its frequency response is quoted as 20Hz to 18kHz and, according to the supplied graph, the response is about 6dB down at 20kHz. A sensitivity of -31dB (0dB=1V/Pa at 1kHz) is specified, along with a respectable self-noise figure of 13dBA. There are no pads or filters, and the maximum SPL for 0.5 percent distortion is 130dB. Phantom power is required, as you'd expect.

Designed as an all-round performer, the manufacturers recommend the Stellar X2 for podcasting, studio vocals, piano, stringed instruments such as acoustic guitar, and percussion. The data sheet didn't mention guitar amps so naturally that was the first thing I tried it on, and the results were rather good. Too often, using capacitor mics on guitar amps brings out an unwelcome brittle edge to the sound, but not in this case. What was captured was very close to the subjective sound of the amplifier when heard from the mic position, which in this case was off-axis and around 350mm from the speaker.

On vocals the mic delivers a clean representation of the person in front of it, with no obvious coloration and a good balance of low-end density and high-end detail, all the while sounding smooth rather than aggressive. The lack of significant presence peaks also means the mic should suit a wide variety of voice types. Female singers and males with high voices tend to show up any high-frequency coloration a little more so the smooth high end of this model could well be a benefit in such cases.

I obtained good results on acoustic guitar too, using the common 'where the neck meets the body' position at a mic distance of 300 to 400 mm. Again, the playback sounded very much as I heard the instrument in the room, balancing solidarity of tone with clarity.

The Stellar X2 puts on a very mature performance, and though not in the budget-buy category, it is certainly not overpriced given its capabilities. **///**

summary

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