

Vanguard Audio V44S gen2

Stereo Multi-Pattern FET Condenser Microphone

By Barry Rudolph

The Vanguard Audio V4 and V44S gen2 stereo multi-pattern microphones are the company's newest models that employ all their latest updates and features, following a strict company policy and philosophy of "high performance at a fair and reasonable price point."

With two identical multi-pattern capsules, one positioned directly above the other, all of the popular stereo-miking techniques utilizing two capsules locked into a single mic are possible. The V44S is capable of: 90-degree X/Y coincident cardioid pair; Mid-Side stereo using a front-facing cardioid (bottom) capsule and a side facing figure-of-8 (top) capsule; and Blumlein Stereo using both the top and bottom capsules set in figure-8.

The V44S gen2, like the single-capsule V4 gen2, is a J-FET transformerless mic that is phantom-powered. All components are sourced from Canada, the U.S., Germany and Japan, with the critical signal path parts undergoing a cryogenic treatment to lower their self-noise and to increase their reliability and consistency mic-to-mic.

The V44S gen2 uses Vanguard's in-house, 34mm, gold-sputtered, 3-micron thick, dual Mylar capsules. The backplate hole pattern is a modified K67 style; an orthogonal layout with the capsule is edge-terminated. This is not an "off the shelf" generic capsule; its voicing was fine-tuned by Ken Avant and is exclusive to Vanguard Audio Labs.

Removing the mic's stainless steel case/cover reveals first-class chassis construction and two solid-looking printed circuit amplifier boards (for the top and bottom capsules) "sandwiched" back-to-back to occupy the entire length and interior of the mic's body.

I liked the build inside, with lots of Wima caps and thick circuit traces. The upper and lower capsules can be individually set to cardioid, figure-eight or omnidirectional polar patterns using solid toggle switches on the back of the mic. However, there are no highpass

filter or attenuator pad switches.

The upper capsule rotates (relative to the bottom capsule) on a solid ball-bearing mechanism made from stamped stainless steel.

This is the best working rotating mechanism I've seen lately—it feels complete in rotation and stays put until you change it. The upper capsule rotates up to 120 degrees in calibrated 15-degree increments (detents). Designed by Derek Bargaehr, this mechanism locks in for both stability and easy recall. I liked that the degree offset is printed on the top basket for a quick check, although in dimly lit studios it can be hard to read the settings.

The new extreme stereo widths now possible were a big request from gen1 owners, for ORTF recordings that are usually done at 110-degree angles. The V44S gen2 is the only single microphone capable of achieving this super-wide stereo pickup.

EXTERNAL SPLITTER BOX

The V44S connects to a small (included) passive splitter box using a 6-meter custom cable with five-pin Neutrik REAN XLR connectors at each end. This cable carries the audio signal from both top and bottom capsules, with the splitter box conveying phantom power from your preamp to each capsule.

The splitter box also has a pair of female XLR input connectors—very thoughtful of Vanguard—for using other conventional mono microphones in a Mid/Side stereo recording configuration.

The rear side of the splitter box has three output XLRs: the Bottom capsule, Top capsule, and a polarity (phase) reverse version of the Top capsule called Top Ø. For Mid/Side stereo recording, the Side signal is typically duplicated, with one side panned hard left and a polarity-flipped copy panned hard right.

Because stereo microphones are used more and more to capture ambient spaces



(partially due to the increased popularity of immersive and Dolby Atmos audio productions), some recordists would prefer to record all three outputs—Bottom, Top and Top Ø—at once and manipulate them later in the mix. Plus, many location mixers' mic preamps do not have the Ø flip feature.

Most importantly, the splitter box makes real-time, zero-latency monitoring of all three tracks possible without any extra processing by a DAW plug-in.

ALL-STEREO RECORDING

My first recording was overdubbing a 7-foot Steinway grand piano on a Pop dance track. I wanted to try different stereo techniques, and I immediately found it easy to change between X-Y, Mid/Side and Blumlein while maintaining the same physical distance and without changing mic gain. I put the V44S so that it "looked" at the middle of the row of hammers at 17 inches above and a little back over the harp. The V44S is a long microphone, and getting it where you want it takes care and a large, heavy boom stand.

For X-Y stereo with both the top and bottom capsules in cardioid and rotated 90 degrees relative to each other, I got a typical X-Y stereo presentation that had great mono-compatibility. It wasn't that sensational panoramically—the main reason I don't usually set up X-Y—though when I rotated the capsules to the full 120-degree position, the stereo image widened noticeably yet maintained mono-compatibility. I'm going to be revisiting X-Y stereo much more!

Rotating the capsules out to 120 degrees proved awesome for Blumlein Stereo, too! Same location. I just changed both the top and bottom capsules from cardioid to figure-8 pattern. The stereo pickup was even wider than X-Y with much better off-axis rejection. This was an overdub, so I didn't want to move the mic. But it's something to consider if you're capturing orchestra and you want to control the amount of room ambience.

Mid/Side requires one capsule to face the source using a cardioid pattern and another figure-8 capsule vertically lined up with it but turned 90 degrees, with its sides facing left and right and its null (the capsule's rim) facing the source. These two mono sources must be correctly processed to produce stereo sound, and the splitter box makes it possible in real time.

For piano recordings I used an A Design Pacifica 2-channel mic pre for the top and bottom capsules,



The V44S gen2 comes in a wooden box, inside a foam-lined case, with an all-black shockmount.

plus an Avalon VT-737SP tube mic pre for the third Ø flip channel when required.

VOICEOVERS IN STEREO

The V44S sounded excellent on vocals—not overly bright or overly warm. For Pop piano sounds you may require EQ, but for lead vocals and voiceovers, it offers a blank palette—you can take it anywhere. It has plenty of gain with max SPL of 135 dB (1%) and equivalent noise level (per capsule) of ≤12 dBA (A-weighted).

I wanted to give the dialog editor more sonic choices for a certain dramatic reading voiceover. As an option, I recorded some dialog in a live room. I liked Mid-Side stereo for this because in post-production, since I had recorded three tracks, the size, width and level of the ambience pickup could be easily dialed to taste—or not used at all.

I used my Retro Power Strip (all-tube channel

strip with EQ and compressor) to record and process the Mid cardioid bottom capsule. The Side top capsule via the splitter box ran into a pair of Sunset Sound Tutti Si-P 500 preamp modules.

I found it great to be able to monitor in M-S stereo while doing takes, although sometimes the stereo imaging shifts if the Side signal becomes too loud or your vocal talent wanders about the mic.

I gained-up, EQ'd and compressed the Mid channel (panned to the center) with the Power Strip for a little punch. I got this sound first without hearing the Side signal for a conventional narrative sound. The Side channels were recorded unprocessed; I found it useful to process them later.

STEREO FOREVER

The Vanguard Labs V44S gen2 is a good all-around workhorse of a stereo condenser microphone that will see more use for new, original recordings/productions made for the Atmos-spatial-immersive formats. It comes in its own wooden box that is collected in a kit in an attractive foam-lined carrying case. The kit includes an all-black metal shock-mount that uses aerospace rubber O-rings to cushion the microphone body. This is a good mic to add to your collection! ■

PRODUCT SUMMARY

COMPANY: Vanguard Audio Labs

WEB: vanguardaudiolabs.com

PRODUCT: V44S gen2 Stereo Multi-Pattern FET Condenser Microphone

PRICE: \$1,099 MAP

PROS: Single-point stereo capture that easily changes to different formats.

CONS: A big mic requires a proper boom stand.