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BY PAUL VNUK JR.

# REVIEW



## DPA 2000 Series Reference Standard Mics

The DPA reputation for excellence in a surprisingly affordable format

DPA is short for Danish Pro Audio, a company that manufactures pristine high-fidelity microphones in Denmark and distributes them in the US from its headquarters in Colorado. Most of its line falls into what we could call a pencil condenser style of small-diaphragm models as well as varied lines of miniature condensers for instrument and headset use.

A few years ago I got my first taste of DPA when I had the pleasure of reviewing multiple models in the d:vote 4099 instrument mic series for violin, mandolin and acoustic guitar. You can read that review in our June 2010 issue. This time around I got to evaluate some of the company's Reference Standard pencil condensers, with an emphasis on the capsules available in the new 2000 Series.

### Modular

The Reference Standard series is made up of various components rather than actual mics. In this way it's possible to choose the right preamplifier (body) and capsules to suit specific needs.

Among preamps you can choose the MMP-A, the MMP-B that includes a lowcut and high-boost, and the MMP-C which is the compact preamp offering a bit more low-end presence.

There is a choice of capsules: MMC4011 Cardioid, MMC4015 Wide Cardioid, MMC4006 Omni, MMC4017 Shotgun, and a pair of more affordable twin-diaphragm capsules, the MMC2006 Twin Omni and the MMC2011 Twin Cardioid.

For this review I was sent a pair of the MMP-A bodies, a pair of the MMC2006

Twin Diaphragm Omni capsules and a pair of the MMC2011 Twin Diaphragm Cardioid capsules.

I was also sent a pair of the coolest pencil-condenser shockmounts I have ever seen or used. Stop by the DPA website and take a look at the DPA SM1500 shockmounts on their accessories page. They are based on the Rycote Lyre system and are very impressive! I was also sent a pair of large foam windscreens and standard mic clips as well.

### Preamps

The MMP-A preamps or mic bodies are a classy jet black and measure 5.8" long with a diameter of 0.75". They have a 138 dB dynamic range and use a transformerless, active circuit.

DPA calls this design impedance balancing with Active Drive. There is a whole article on DPA's website that goes into what this is, what it does and why, but in simple terms the Reference Standard series preamps offer a lower noise floor than transformers, better consistent signal amplitude, and extremely accurate linear phase response. Think ultra-clean, ultra-quiet, and ultra-accurate, and you are on the right track.

### Twin Diaphragm Capsules

Both of the 2000 Series capsules use a pair of opposite-facing, pre-polarized, pressure gradient miniature capsules in their design, and the 2011 Cardioid makes use of DPA's interference tube design. In essence, these are miniature chambers in the capsule, and similar to how a shotgun mic works, hence this capsule's extended size.

The MMC2011 Cardioid capsule is on the larger side at 2" in length and features a unique outer grill structure. It has a stated frequency response of 20 Hz to 20 kHz, a 10 mV/Pa; -40 dB ref: 1 V/Pa sensitivity, a 74 dBA signal to noise ratio and a 20 dBA ref: 20 uPa equivalent noise level. It's a fairly flat mic with a slight dip between 50 and 100 Hz and a gentle smooth upward slope from 3 kHz, peaking at 10 kHz and then dropping off around 15 kHz.

The MMC2006 Omni capsule is directly descended from DPA's 4060 miniature Omni capsule. Unlike the 2011, this one does not use interference tubes in its design, and is only 0.67" in length. DPA lists it as having a frequency response of 20 Hz to 20 kHz, a 40 mV/Pa; -28 dB ref: 1 V/Pa sensitivity, a 78 dBA signal to noise ratio, and a 16 dBA ref: 20 uPa equivalent noise level. Frequency response is almost ruler-flat across the board with a very even sloping rise between 6 kHz and 20 kHz, peaking at about 15 kHz.

### In use

Combined with my Millennia Media HV-3D mic pre I put the mics and capsules through their paces on nylon-string classical acoustic, flute, ocarina, African kalimba, wooden shaker eggs, Tibetan singing bowl, tabla, brass-jingle tambourine, and choral voices. Part of my studio life is devoted to sound design, sampling, and ethno-ambient music; these kind of mics, married to a preamp like the Millennia, yield a combination that is about as clean as it gets and are perfect for this kind of work.



To round it out I also threw them up as drum overheads and on an acoustic guitar in a pop/rock session. I also tried them on snare (both over and under) and on the front side of a cajon or box drum.

Unfortunately this will be one of those reviews where I tell you that they sound incredible on everything, because they just do! This type of microphone is not suited to the vibe junkie looking for flavor. What they excel at is tracking both high-end and great-sounding acoustic instruments or unique folksy world instruments loaded with nuance and vibe of their own. In each instance they captured the source with incredible detail, no more and no less.

Having said that, there are a few comparisons I would like to make. First I found the cardioid capsule a touch smoother and more focused and better suited to sources that I wanted to sit in the foreground of the mix, like spot-miked on a ride cymbal, tablas, finger-picked classical guitar, and the like.

In contrast, the Omni capsule (while smooth as well) exhibited a slightly diffuse airy openness to it that conversely receded instruments into the mix with a feeling of being there, but not in your face. This was my choice on strummed acoustic guitar, snare bottom, general drum overhead duties, and many of the small ethnic curios.

I also threw a Neumann KM84 into the equation as a benchmark, to compare and contrast. In many cases the mids and highs sat in similar ground, but the KM84's transformer gave it an instant forward and recognizable weight that made it a better choice for snare top, hi-hats, and the cajon.

In the end these mics are in a rare class with companies like Earthworks, and while they cover some similar ground I find the Earthworks a touch more pristinely real, while the DPA Reference series mics have a hint of sweetness and musicality in their upper end that is just gorgeous.

### Final thoughts

Interestingly I have never been much of an Omni fan, especially with large-diaphragm mics. In fact I will usually lean towards tighter patterns like hypercardioid for "focusing" purposes. Having said that, if I had to choose only one mic type from the DPA Reference Standard series, it would be a pair

of the MMC2006 Omni capsules in a heartbeat. They are just elegantly able to place things effortlessly into a mix. Don't get me wrong, the MMC2011 Cardioid capsules are really nice too, and probably a better choice for all-round common mic duties, but those Omni capsules are something special!

With so much going for them, it is remarkable that these 2000 Series capsules are DPA's budget capsules, at around half the cost of the 4000 series—and did I mention how sweet they sound? ➤

**Prices:** MMP-A preamp body, \$495; MMC2006 Omni capsule, \$475; MMC2011 Cardioid capsule, \$475

**More from:** DPA Microphones, [www.dpamicrophones.com](http://www.dpamicrophones.com)

