

Audix D6 Bass Drum Microphone

Small Package...Big Performance

HITS

exceptional acoustic performance even with no processing

small size for easy positioning

rugged housing

by Mark Parsons



Question: Since Audix already has a nice kick mic' in the D4, what's with the new D6? Is it a "new & improved" version of the D4? Does it replace the D4? Or is it possibly a "budget" version of it?

Answer: Absolutely none of the above.

The D4 is a very good microphone that yields a faithful reproduction of high-impact/low-frequency sounds. However, there's a sizeable group of folks who aren't as interested in fidelity as they are in character. They *want* some color in their mic's. Look at all the tube-based sound gear on the market these days. Or more to the point, look at all the "pre-emphasized" kick mic's out there. The new D6 is, in fact, another pre-emphasized mic'. But it's definitely not *just* another pre-emphasized mic'. It's the pre-EQ'-ed mic' to end all pre-EQ'-ed mic's.

Let's face it, beyond a certain point these things become subjective. Just like wine, cars, and cymbals, it's part technology and part personal taste. (The larger part, I might add.) And while I'll try not to let *my* personal taste get in the way of an objective description of the D6, before we go any further I've got to tell you—this thing does it for me. However, there are sound scientific reasons for my technolust regarding the D6, so let's back up and look at some of the factual aspects first.

History Lesson

Even though this is a new product, Audix didn't just decide to jump on the "pre-curved" bandwagon yesterday. Shortly after the D-series made its debut a few years ago, they hinted that they were working on something like this. It must be easier to make a relatively linear mic' than a precisely tuned non-linear one, because in the interim they put out the D4. But Audix kept tweaking the D6 until they were sure they had it just right.

Actually, the tricky part isn't making a non-flat microphone. Almost all mic's fit that description (although many do it unintentionally). The extremely hard part is tweaking the curve such that it enhances the intended sound source without exhibiting any weird phase problems or other aberrations. And the mic' must also be somewhat "universal" in application—at least within the family of intended instruments. Let's see what the folks at Audix did regarding this multi-pronged dilemma.

Design

The D6 looks just like the other mic's in Audix's D-series, but for its dimensions. The main body is 2" in diameter and 3" long, with the narrow tailpiece adding another 1½". (Making the tailpiece the same size as on the other D-series models means that all Audix clips and clamps will fit the D6. Good thinking.) The sturdy one-piece housing is machined from a solid block of aluminum and given a semi-gloss black anodized finish. (A "silver" finish is also available.)

Overall, the D6 exemplifies the edict that form should follow function. It's as big as it needs to be to house the capsule and associated electronics, and no bigger. This pays dividends when it comes to placement, as we'll see.

So physically, the D6 is a solid, functional design. But that can be said of a number of other mic's. What sets this design apart is what's on the *inside*. One look at the response curve tells you there's something interesting going on here. There's a significant boost in the low end, but instead of it being centered in the usual 125 Hz

region (which can add to the “boom” characteristic of a bass drum), it’s centered an octave below that. This contributes to the “thud” characteristic instead. Then there is a reduction in the lower mids that is both broad *and* deep, centered at 600-800 Hz, but extending from perhaps 200 up to 1,500 Hz. This reduces the dreaded “boxy” midrange ring that is death to a tight kick sound.

In the high frequencies, the expected boost at 4 kHz is there, which accentuates the punch of the beater attack. But there’s another (even stronger) peak up around 10-12 kHz. This gives you the beater “click,” which adds pinpoint definition to the attack. It would be almost meaningless to say “there’s an 8 dB cut at such-and-such a frequency,” since *nowhere* along the response curve is the graph flat. There’s no real baseline from which to measure. Suffice it to say that this is the most non-linear mic’ I’ve seen in a while: Both 60 Hz and 10 kHz are a good 12 dB (or more!) above 700 Hz.

The polar chart is very interesting. In brief, this mic’ is *very* good at rejecting midrange (500 Hz) from the rear, but quite a bit more “omni-ish” when it comes to the lower frequencies. This means that when it’s placed inside a kick drum, it will theoretically reduce more of the harsh shell ring coming from off-axis in proportion to the warmer overtones it picks up.

In Use

Because I got one of the first models off the line, the D6 I tested arrived without any literature. Therefore I started by simply placing it in some typical locations and listening, making notes of my initial impressions. Here are some excerpts from my first listening session:

“I’m especially enjoying the way the high end of the curve is tuned to pick up the beater click. Other non-linear kick mic’s have an upper-mid boost, but it sounds like the emphasis on the D6 is at a higher frequency, resulting in less harshness and a better kick attack. The major reduction in the lower mids makes for a very smooth sound. And there’s lots of beef on the *bottom*...”

Shortly after that session, Audix emailed me some specs and charts on the mic’, and I had to smile. First, it was nice to know that my poor, abused ears still worked. But more importantly, it was reassuring to note that everything I was hearing was *intentionally* designed into the mic’. The way this thing responded to a kick drum wasn’t even partially the result of serendipity.

Let’s examine some specifics. I started with the D6 placed about 6" in front of the kick drum. It sounded a bit fatter and had significantly better articulation than other mic’s I’ve used. It was also much smoother, due to the greater attenuation of the mids. Another thing was immediately apparent: The output of the D6 was lower than the other mic’s I’d been using. This can be problematic when you’re using a microphone on very quiet sources, because you have to raise the gain—which also raises the noise floor. However, in percussive applications all it means is that you won’t have to use a pad on your board. (And since the D6 can take a max SPL of 144 dB, you won’t be running out of headroom.)

Next, I tested the mic’ inside a kick drum. Its compact size (for a kick mic’) made it easy to position through the port in the front head. Here the D6 *really* shone, producing what is probably the best unprocessed (no EQ or compression) contemporary kick sound I’ve ever heard. It had significant weight to the sound, with

more articulation than I’ve heard on a kick without any added harshness. It was also incredibly smooth through the midrange.

I immediately unscrewed the mic’ and looked inside, expecting to see a tiny soundman hard at work on a miniature mixing console. How else could a completely dry mic’ signal sound so professionally produced?

With a record of two for two, I decided to stretch the envelope a bit and try the D6 on a 12x14 tom. Here, too, the sound was very fat, smooth, and articulate. All without turning a single knob. Wow.

Now Hold On

Along with the D6, Audix also sent along their new D-clamp. (This wasn’t available when I tested their D-vice mount during a recent review of the Micro-D microphone.) The D-clamp is designed to mount a mic’ on a conga (or pretty much any hand drum that uses tension hooks). The short story is the D-clamp works great, holding tightly to the drum yet allowing plenty of positioning flexibility via a thin gooseneck.

As long as the mount was clamped to a conga, I figured, Why not put the D6 on it and see what’s up? Well, I think we finally reached the boundaries of the D6’s job description. The result was a little *too* smooth, and the drum needed a little more midrange in its sound than the D6 was willing to give. In this application I’d go with a less contoured microphone, such as an Audix D2 or a Shure SM57. Please note, however, that Audix isn’t touting the D6 as a conga mic’.

One “outside the envelope” application that *was* a success, however, was using the D6 in front of the drumset as an ambience microphone. I placed it approximately 4’ in front of the kit, and 18” off the ground. Of course there was a lot of kick in the signal, but the D6’s enhanced transients also allowed it to do an excellent job of picking up the rest of the set. The resulting sound was a big/full/live “mix” that would sound great in certain settings. I could really see using a compressed version of this signal to add some “splat” underneath a typical drum mix.

Conclusion

The D6 was designed with one goal in mind: to be a no-compromise contemporary kick mic’. If you’re a purist looking for a linear, “just the facts” bass drum mic’ (and there are certainly times when this is desired), then the D6 obviously isn’t the mic’ for the job. But if you want a painless way to get an absolutely rocking professional sound with a ton of serious beef on the bottom and that Lars-type “click” on top, then this is the stuff.

To paraphrase Will Rogers, I never met a mic’ I couldn’t use (given enough EQ, in some cases). But there’s a big difference between “something that works” and something so perfectly tailored to the task that it makes the job effortless. The D6 is the latter, and it was definitely worth the wait.

THE NUMBERS

Audix D6 Bass Drum Microphone	
Type	Cardioid Dynamic, “Tailored” Response
Frequency Response30 Hz – 15 kHz
Max. SPL	144 dB
Housing	Machined Aluminum
Available finishes	Black or Silver Anodized
Dimensions2” diameter x 4½” overall length
Weight77 oz.
List Price	\$349
☎ (800) 966-8261, 🌐 www.audixusa.com	