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**THETA
CITADEL MONOBLOCKS**

by Shane Buettner

Those who have been reading the Journal for any time at all know that Dick Hardesty has been hooked on Theta Dreadnaught amplifiers for the last three years and counting, and that both he and I bought them and use them as our reference power amplifiers.

The Dreadnaught was based on a circuit topology that Theta hired Ayre's Charles Hansen to design, and both Jim White (now with Aesthetix) and Dave Reich (formerly of Classé and McCormack) worked on it at Theta's end. If that's not premium design talent I don't know what is. The Dreadnaught was something of an instant classic, a modular multichannel design that holds as many as five channels (or ten half-power channels) that sold for under \$7K fully loaded (actually \$6,750 for a 5-channel Dreadnaught II).

The Citadel is a no-holds-barred monoblock based on Dreadnaught's amplifier modules. It's more powerful at 400 watts per channel into 8Ω, boasts some parts-quality upgrades, and is wildly more expensive at \$15,800 per pair (as reviewed). But who wouldn't want an amp that promises to be a more powerful, more refined version of one of the best of the best solid-state amps available?

Outside: Form and Function

Theta's Citadel is one of the most gorgeous pieces of industrial design I've laid my eyes upon. It's taller than I expected, and parked up next to my speakers it looked imposing, stately and beautiful. It's exactly as a statement product should be and although we all try to pretend it's not about the gear, there's a commanding allure about the physical appearance of a



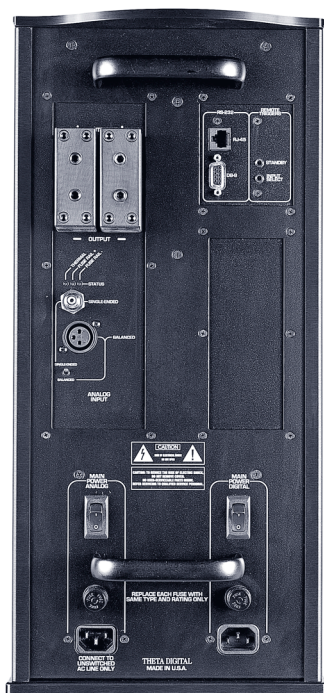
component like the Citadel.

Citadel has the curvature of Theta's latest designs and its brushed aluminum front panel is sculpted into gentle waves. Each pair is designed to be set up left

and right aligning the narrow extrusions on each front panel to the inside. Each extrusion runs about 2/3 of the way up the face and houses three LEDs and a badge with the winged Theta logo.

The Theta logo is the power on/off button and the LEDs are status indicators. One indicator is power/standby, while the thermal indicator illuminates when dangerous temperatures are reached in the amplifier. The "DIG IN/LOCK" indicator and a button below the LEDs marked "ANA/DIG INPUT" refer to an as-yet-unrealized potential of Citadel to house a DAC board and accept digital input signals directly.

The side panels and top of Citadel are adorned with curved vents. The side panels are both lined with the same "advanced interlocking polymer" used on the Aesthetix Calypso and Rhea front end components (see review in Journal #10) that allows them to be removed with no screws.



This stuff really isn't Velcro™ even though that's how it behaves, which makes for a colloquially intuitive description of what it does.

Apparently the key difference between this material and Velcro™ is that the advanced polymer won't separate when pulled straight off (you have to work it side to side to get separation) and it actually damps vibration and resonances in a way that standard Velcro™ and especially screws don't. Interesting and cool.

In addition to two large handles, Citadel's back panel has one each balanced and single-ended inputs with a toggle switch to select between them. There are LEDs for thermal overload protection and one each to indicate if the positive or negative rail fuse has blown. The main power cord inlet and power switch are on the lower left of the back panel. On the lower right are the digital power cord inlet and main switch for powering the optional DAC board Theta plans to offer in the future that will be housed in an open bay on Citadel's rear panel.

There are remote trigger inputs and RS232 connectors on RJ-45 and DB9 connectors. The binding posts are big, heavy-duty proprietary things, designed by Theta's Dave Reich, that have to be tightened down with an Allen wrench (Citadel ships with a nice one with a logo handle). The pair I auditioned came equipped with a second set of binding posts for biwiring—a \$300 per unit option. The only issue I had with these posts is that they're loaded from the sides and not the bottom, which makes them a little harder to access and leaves more pressure on thick speaker wires when they're hanging sideways with the spades locked down. Nevertheless, the connection was exceptionally tight and solid, which means it does what it's supposed to do.

Inside: The Design

The Citadel is based on the Dreadnaught's amplifier module,

which is essentially a bridged solid-state stereo amp module in a fully balanced configuration. The input devices are JFETs, the driver stage devices are MOSFETs, and the output devices are bipolars and there are sixteen of those suckers. For Citadel the modules have upgraded parts that are tweaked to tighter tolerances "by hand." Like Dreadnaught, Citadel is a zero global feedback design.



The power supply of the Citadel is tweezed to deliver higher rail voltage for increased current output. Dave Reich confirmed that the sixteen bipolar output devices are still more than ample to deliver the additional current generated. Citadel uses larger heat sinks to dissipate the heat created by the process and actually runs quite cool compared to Dreadnaught. Each Citadel uses an EI

core transformer rated at approximately 1kVA and two chokes on the high current power supply to quench noise. Each Citadel has two filter cap banks rated at a total of 160,000 microfarads capacitance.

Citadel's power ratings are interesting. While the ratings are 400, 600, and 800 watts per channel into 8, 4, and 2Ω, respectively, the power rating is specified at <2% THD+Noise instead of the typical <1%. (Theta's own Dreadnaught, for example, is rated at 200 watts per channel into 8Ω at <1% THD+Noise.) Relaxing the distortion figure on the power rating could be a bit of specsmanship on Theta's part to make Citadel seem more powerful on paper than it really is.

Performance

The Citadels I auditioned had been used before but they still needed time to settle into their ultimate performance envelope within a couple of days. Over that time they continued to gain front to back depth and top end extension in particular. I bring this up because when I purchased my Dreadnaughts new from Theta they sounded very soft and almost dull for several weeks. After a month of continuous use they finally opened up.

If you buy them based on the recommendation I'm going to make here, please don't send me a nasty email until they've run for a while. Let's talk about what you'll hear after that.

The Citadels are everything that the Dreadnaught is—with just a pinch more including overall refinement. While there isn't any single way in which the Citadels are dramatically better than

“The Citadels are everything that the Dreadnaught is—with just a pinch more including overall refinement.”

the Dreadnaught, the total listening experience adds up to more than what the number of small (but noticeably real) improvements suggest by themselves. The Citadels have better bass, improved midrange resolution and an airier, more extended top end. They have layers of front to back depth, resolution and utterly convincing image focus and dimensionality. Other components in your system will set the sonic boundaries of the soundstage, not these amplifiers.

The Citadels are just as focused as Dreadnaught, but with images that are larger, more rounded with slightly more convincing air surrounding them. Not only do musicians and instruments throw way back in the soundstage, other players are clearly drawn out in the foreground on separate spatial planes.

The sound is also as pure and musical as I've heard from solid-state, with the natural, liquid, non-fatiguing sound of tube gear. The Citadels are more refined than Dreadnaught, with a sound that is just impossibly sweet and purely musical for an amplifier that's this revealing and high in resolving power. Part of the Citadels' magic is unquestionably in how quiet they are; they're much closer to the standard set by the Ayre amplifiers in that regard than the Dreadnaught.

The Citadels sound more liquid, never showing anything resembling grit or grain. That characteristic lack of grain or glare seemed to me the most obvious form that the Citadels' higher power rating assumes as well. They sound a bit more powerful than Dreadnaught, but not twice as powerful. The additional power results in slightly improved bass weight, con-

trol and articulation. But more than that, the Citadels seem to hold together with more grace during loud, complex passages.

Citadels never sound as brutishly powerful as the Halo JC 1s, for example, but neither do they run out of gas or veer into any form of harshness or edginess that would suggest a threshold being breached.

While the Dreadnaught is a great amplifier, and one I've been happy with for three years with other contenders coming and going with regularity, the Citadels point out its few weaknesses in ways that very few amplifiers have.

Taking nothing away from my Dreadnaughts, for the first time since I've had them there was a let down switching back to my reference amps! I say that takes nothing from the Dreadnaught because we're talking about a competitor that's got more in common than not, and costs substantially more. You'd be unlikely to perceive the shortcomings of the Dreadnaught except in direct comparison to the Citadels.

Standard operating procedure for me during a review is to listen to the review product for a length of time then, as the review winds down and I feel I've gotten a handle on it, to replace the review product with my reference gear for a final comparison. With the Citadels, I found myself putting this off for days on end—I just didn't want to replace them until I'd heard a few more favorite recordings. I think that, more than anything, expresses my feelings about these amps.

Conclusion

Value must be part of the equation in any review and it's always the trickiest question. The Citadels are the finest amplifiers I've had in my system, period. As excellent as the other amps in this survey are, the Citadels are a cut above them all. But they cost multiples of Dreadnaught's price and the obvious question is whether they sound that much better.

Dreadnaught is good enough to make that a legitimate and tough question. All I can say is that the Citadels are better in some quantifiable ways, and we're in an industry where increased performance can often be obtained only by wildly disproportionate spending. I think this speaks well of Theta's efforts on both counts. The Dreadnaught is an amplifier that can be bettered only by spending much more.

But given the additional design budget, they've managed to make something that sounds even better still and the Citadels are an astounding aesthetic achievement to boot. Perhaps the best way I can make my feelings clear is this: if I could afford them I'd buy the Citadels in a heartbeat and I wouldn't look back. **APJ**

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**THETA
CITADEL**

Richard Hardesty comments on...

MONOBLOCKS

The Theta Citadels are the best amplifiers I've heard. They provided dead silent backgrounds like the Ayre, holographic imaging that used to be strictly the province of tubes, bass control and impact that you could never get from tubes, power and dynamic contrast along with air and high frequency extension that used to be available only to those who would sacrifice subtle detail resolution in the midrange.