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Mark & Daniel Maximus Mini Monitors

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Specifications:

Frequency Response: 50Hz - 35KHz
 Two-way Crossover: 1400 Hz
 Nominal Impedance: 4-8 Ohms
 Average Efficiency: 82.5 dB/2.83V/1m
 Power Handling: \geq 60 Watts per channel

Enclosure Material: C.A. Marble
 Size (H x W x D): 25.4 x14.2 x17.9 cm
 10.0" x5.6" x7.0"
 Weight (each): 6.3 Kg (14 lb)
 Finishes: Several colors in Composite Marble
 Price: \$1200 pair
 Manufactured in Shanghai, Designed in the USA
www.mark-daniel.com



If there is one thing that will always be true in audio, it is that renegades do exist. Renegades look at the traditional way equipment is made, then turn tradition on its ear. Sometimes it can be the physical esthetics, such as Bang & Olufsen's elegant Beogram design of the 1970's and 80's. Then, a product whose scientific design principles initially cause a groundswell of puzzled comments or looks, e.g. ACI's Sapphire XLs, goes on to impress positively with its tremendous sound reproduction. Whatever the case may be, the industry needs these manufacturers to push the industry forward and keep things fresh.

One such young, upstart company is Mark & Daniel, based in Tucson, Arizona. Taking a fresh look at the issue of crossover frequencies, they followed the work of Dr. Oscar Heil in the 1970s and implemented the Doctor's concept of the "Air Motion Transformer." The idea is to create more surface area by pleating or folding the driver surface area, allowing for greater frequency response range. Another target area is that of "Frequency Modulation Distortion," the meddlesome Doppler Effect involving the transmission of more than two frequencies. According to Mark & Daniel, the best audio solution involves using planar speakers. Therefore, they developed the Dreams DM drivers to handle the upper frequencies from 800hz in the DM-1, and in the case of the Maximus Mini's DM-2 supertweeter, at 1.4khz.

The other area where Mark & Daniel bucks conventional wisdom is the enclosure. Typically, manufacturers use medium density fiberboard with real wood veneer (thankfully, the days of vinyl seem to be over). Instead, the cabinet is made of Composite Artificial Marble. Besides having double the density of MDF, it also is seamless. The upper front corners are beveled allowing for a wider dispersion of sound from the DM-2. The review unit came in an interesting yellow with white-flaked composite, this color along with all the others is an interior designers dream. I wouldn't be surprised to see any of the Maximus Minis placed on a bookshelf in a television show. Another unique feature of the CAM enclosure is that a scratch can be buffed out.

The mid bass driver is just 4 inches in size, but don't sell it short. Like other new small drivers of its type, it has the ability to dig deep. In using my *Stereophile* test cd, I could definitely pick up the 50hz tone, but more on its bottom end

response later. Mark & Daniel spends a great deal of effort explaining the importance of excursion lengths of their drivers. Their belief in measuring such capabilities is admirable, and hopefully, for specification nuts, such measurements will become standard.

Listening



The Maximus Mini may be small in stature, but it requires some serious power as they are rated at a very low 82.5db and a recommended 60wpc minimum. I wouldn't dare recommend these monitors to be mated with 99.5% of receivers. The only time the review pair experienced receiver power was during the break-in period using my traditional method of [a closet and a blanket running constantly for 131 hours????]. During the review process the Maximus Minis were paired with three different amplifiers: the Underwood Modified PS Audio Trio C-100, a Classe CAP 151 integrated (courtesy of Echo Hifi), and the Onix SP3 integrated tube amp. Although the SP3 is rated at only 38wpc, its design and power supply performed without issue.

The first half of my listening was done with the Underwood/PS Audio. Its being a modified unit challenged the Maximus Mini to perform at Mark & Daniel's stated "near to full frequency" capability. With the crossover set at 1400hz, it took a bit of non-critical listening to adjust, as I'm used to a 2khz+ crossover point. In a nod to something different, I chose to start with Phil Collins terrific first solo album *Face Value*. The percussion opening in the second track "This Must Be Love" immediately announced that the Minis are a serious monitor, not just an afterthought. The resonance of the bongos was both tight and rich. Collins voice was nicely placed with a more natural tone than I've observed with most mini monitors, which have a tendency to raise for his vocals a bit higher.

Full-range classical music brings out the warts in mini monitors. So, intrigued as I was by the low crossover point, I pulled out Aaron Copeland's *Rodeo*. With its abundant horns and rich tympani hits, it's a treasure trove of specific instrumentation. The Maximus Minis did a fine job creating a nice, deep sound stage. Like all mini monitors, they do suffer from congestion, but not as much as one might think. Strings had more warmth than expected from such a small enclosure.

Contemporary jazz is a forte of the Maximus Mini, the breezy work of the group Images floats about in a wide space in front and to the sides of the monitors. The group's signature song "Jonathon" showcases the effortless, natural quality of the piano. Many times, small speakers struggle keep piano keys from having an edgy sound. The Minis avoid this, probably in large part due to the 1.4Khz crossover point. Whatever the reason, these composite marble blocks perform with ease.

I figured the layered rock of Boston's self-titled first release would force the Maximus Minis into admitting their limitations, but other than the obvious missing bottom octave and enveloping sound that only full rangers can give, they handled the layered electric guitars with style, giving each one its own sense of space. Tempting the bass gods, I moved the Minis off the stands and placed them against the back of the shelf that sits below the bay window. The bass did exaggerate, but not as much as I expected. Even more impressive was the only slight loss in imaging. This confirmed to me that these will work quite well on a bookcase in an office environment.

Caveats, Limitations, & Comparisons

The Mark & Daniel Maximus Mini isn't perfect, though it tries valiantly to make one forget it is a munchkin. It isn't for everyone. I have no doubt that its need for serious power combined with its low efficiency will burn up some poor soul's big box bargain equipment. In other words, don't bother with cheaply built crapola!

Sonically, at this price range of \$1200, sacrifices are still a part of the game. In the case of the Maximus Minis I detected a weakness in the presentation of the high-hat with both rock/pop and jazz material. The resonance just didn't show up, for lack of a better description. I brought in the Era Design 5s, as they don't embellish high frequencies ei-

ther. After a few days of comparing I was certain that a “hole” exists. To confirm this diagnosis I then hooked up the Onix Rocket 450s as they have my favorite tweeter, the Vifa Ring-Radiator. The towers seconded my diagnosis. I’m tempted to believe that the crossover point at 1.4khz is the culprit, but I don’t have the testing equipment to confirm.

In addition to the limited comparison of the Era Design 5s, I also spent a great deal of time going back and forth between the Maximus Minis and Totem Mites, as they are very similar in size. In fairness, the Mites are 55% of the cost of the Minis, but they would be used in the same fashion. The biggest difference is in the high frequencies. The Mites are much brighter and throw a wider sound stage. The Minis offer a richer sound and a more robust bass response. If one can afford the Minis, the price tag makes them the clear victor.

Final Thoughts

One of the best parts of writing reviews is getting to experience equipment from manufacturers for the first time. I am always surprised by how they have made their own twist on the standard audio design. In the case of Mark & Daniel, their design is a true out-of-the-box change. The Maximus Minis have been a unique pleasure to listen to on a daily basis. They do so many things well, that in many cases I just plain forgot that the sound was coming from such a small cabinet. I can easily see these speakers in an office of a professional hooked to a quality integrated amplifier. The Maximus Minis offer a performance worthy of their \$1200 price tag. If you’re looking for a mini-monitor to match up with truly quality amplification, the Maximus Minis deserve an audition.

Manufacturer’s Response: Update 2/26: The DM-2 driver was originally designed for M&D’s supertweeter on our Omni-Harmonizer; you were very right about the crossover (around 1.4 KHz) to the Mini since this is the point that DM-2 about to roll-off as the measurement attachment! Based on your diagnosis, we have carefully re-checked the system alignment and made a minor modification on Mini’s crossover PCB then; I believe this blemish has been basically fixed now, and the modification has been applied to all Maximus-Mini products ever since. Sincerely appreciate to your feedback!

All the best,

Daniel Lee

Review Equipment:

Onix SP3 Integrated tube amp
 Underwood modified PS Audio Trio C-100
 Jolida JD100 modified cdp
 Totem Mites, Era Design 5, Onix Rocket RS 450
 Celestion Si stands
 AudioArt cables, interconnects, & power cords
 PS Audio Quintet

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