



Meridian DSP5000 Digital Loudspeakers (Audio Revolution)

By Kim Wilson

Introduction

What exactly is a digital loudspeaker? Obviously, it doesn't reproduce sound digitally, or you'd hear a steady stream of noise similar to the sound your modem makes when connecting to an ISP. Digital, in this context, refers to the extensive functionality of the unrivaled Meridian DSP5000 loudspeaker.

In addition to drivers, the speaker's cabinet contains a controlling computer, digital preamplifier, digital-to-analog converter (DAC), digital signal processor and amplifier. You might expect the DSP5000s to be monstrous with all those built in electronics, but they're housed in a compact 8.3 x 35.5 x 12 inch cabinet that is exquisitely finished in either black veneer (\$6,950 a pair) or rosewood (\$7,200 a pair).



The driver complements consist of two 6.5-inch polypropylene long-throw drivers and a single one-inch aluminum dome, silver voice-coil, piston tweeter. Each speaker is tri-amplified, with three 75-watt amplifiers providing plenty of power.

Regardless of whether the DSP5000s are used in a two-channel or multi-channel configuration, one speaker is chosen as the master and all others are connected as slaves. (In multi-channel set-ups, each speaker is electronically assigned a specific

channel.) The master speaker responds to remote commands, controlling the function of other Meridian speakers and products.

Evaluation



For the purpose of this review, I used a two-channel setup. When it comes to simplicity, it just doesn't get any better than this. The digital output of the Meridian 500 CD transport connects directly to the master DSP5000 and a communication cable is used to connect the master speaker to the slave. The signal stays in the digital domain until the final output, when it's converted to the recently upgraded Meridian 24-bit/96kHz internal DACs. Any digital source device can be used, but only Meridian products can be controlled via the manufacturer's remote. If you want to get really tricky with your system, invest \$3,000 on a

Crestron or Phast touch screen remote to connect via the RS-232 communications port.

Lacking traditional speaker terminals, the backside of



the DSP5000 features two communication ports, two digital inputs, one digital output, an RS-232 port and a power button. The digital readout, located in front at the top of the speaker, indicates volume level and CD track number.

There are a series of settings to accommodate a user's listening environment and personal preferences. Along with tone controls, there is a custom setting for Axis, which adjusts the listening height to better focus the image specific to the listening position.

I could actually hear the image shifting along a vertical axis.
Very cool.

Music

These speakers are well-suited for classical music. There is clear delineation between the various instruments, with excellent separation and impact on Mozart's Symphony No.40 (Telarc). On Yo-Yo Ma's Simply Baroque (Sony Classical), the cello on Boccherini's Concerto in G Major is lush and full-bodied, with superb definition and depth. On Canton Della Terra from Andrea Bocelli from Songo (Polydor), the voice is almost omnipresent.

In fact, the DSP5000s have tremendous presence, which struck me immediately when I first turned them on. The live jazz club feel is so realistic that I can imagine Joe Pass fingering his guitar solo right there in the living room during Duke Ellington's "The Blues" from the XRCD Duke's Big 4. Duke's piano is natural and clear, with that sharp attack in the upper register yet void of any anomalous sizzle or harshness.

The DSP5000 is not what I would call a subtle speaker, nor is it overly dynamic. It has an intense, in-your-face characteristic evidenced by the acoustic guitar at the beginning of "Animal Instinct" from the Cranberries latest CD, Bury the Hatchet (Island). The sound seems to just leap out at the listener.

Mid-bass is tight and articulate, far more noticeable on tracks without a lot of low end, such as "Topaz: Gem of the Setting Sun" from the Rippingtons' latest album Topaz.

Imaging is exceptional. It got even better when I moved my equipment rack and 32-inch Sony



XBR TV from between the loudspeakers. Immediately, the center image cleared up and the depth improved. Placement of instruments is solid and overall coherency is splendid. The soundstage, however, isn't very tall or wide as compared to other speakers I have heard in my system or near the price range.

Part of what I initially found captivating about the DSP5000s is the fast and uncomplicated hook-up. The up-front soundstage is appealing, but invites some criticism with extended play. The top end can be a tad too soft, particularly on some female voices such as Loreenna McKennit on "The Mummer's Dance" from The Book of Secrets (Warner Brothers). Adjusting the tone control adds an attractive "pop" to the vocal, but I was careful not to artificially overemphasize the effect.



The low end can be overpowering and even sluggish, especially on pop/rock recordings with tons of bass like Lenny Kravitz's "5" CD (Virgin Records). I adjusted the bass tone control, attenuating it as far as it would go.

This eliminated the echo, which could have been the result of my hardwood floors, but the low frequency response was still loose.

The DSP5000 comes from the factory in England optimized for a rear air-space of about a foot-and-a-half from the wall. I had them placed more than two feet from the outer wall, using Meridian's boundary setting to adjust the balance of the speaker's low-frequency range when it is placed in a corner or too close to the wall. I played with all three settings and had good results, but I can't say the bass ever

tightened up to my expectations.

The fact that the Meridian DSP5000s feature a digital input and output allows you the luxury of looping a digital equalizer into your system. Nearly all modern high-end loudspeakers perform wonderfully on paper with specs that look very



impressive, but making any good loudspeaker sound its mathematical best frequently requires professional help. Adding a digital EQ gives a professional acoustician the tool he or she needs in your signal chain to make your system perform its best in your room.

Additionally, a digital EQ or a product like Meridian's 518 (\$1950) allows you to enjoy the power of Meridian's advanced, internal 24/96 DACs with your existing 16-bit CD collection. The way this works is through dithering. Dithering is the addition of random noise to your 16-bit word to create additional bandwidth to attenuate or shape an audio signal. Once a signal has been up-converted, you can choose the exact bit output of your signal. In the case of the DSP5000s, you'd choose 24-bit output. Is dithering better than the DVD-A audio DVDs (coming this October) or the select group of existing DVD-V discs recorded with 24/96 music? Absolutely not. DVD Audio rocks and so does 24/96 performance. The improvement in sound from a 24/96 source is so stunning even non-AV enthusiasts are shocked by how much more present and resolute recorded music can sound. The Meridian DSP5000's give you a way to enjoy higher resolution digital on both the coming DVD-A discs and your existing CD collection -- right now.

The Downside

When customizing settings, it is necessary to power down the loudspeaker. This requires moving to the speaker itself and turning it off manually. (The "off" button on the remote only puts them in standby.) When you turn them on again, you then have to initiate the proper configuration mode by pressing a specific button on the remote. Now the power button is at the bottom of the speaker (rear) and the remote has to be directed at the loudspeakers digital readout (front-top). It's a tricky maneuver, requiring you to get up from your listening position. Such a cumbersome and manual operation seems inappropriate for a product that is marketed under the banner of simplicity.

Fortunately, the most used adjustments -- tone control, balance and axis -- do not require going through this procedure. They are accessible in the normal operating mode.

In order to listen to the pending 24/96 DVD-A discs, you need to use a compatible DVD machine. The best for the job is Meridian's 800 priced at \$10,000 plus a DVD-A upgrade. Pioneer and Panasonic are promising much less expensive units (\$1,000) for release in October 1999. It is very unlikely that your current DVD machine will pass a 24/96 word from a DVD-A disc to a pair of DSP5000s, however the minute you hear the difference you might get the urge to make the investment in both a new DVD machine and a new collection of software. The sound is just that amazing.

Conclusion

The Meridian DSP5000 loudspeakers are the prototype for the future of high-end music and theater systems. Their design is

sleek, their upgradability is legendary (18 to 24 bit upgrades are priced at \$1,950) and their ability to bring you the latest technologies today put the DSP5000s in a select group of high-end contenders. The ease and flexibility of set-up, coupled with the DSP5000s' ability to easily power a cutting-edge home theater system, just add to their appeal. Are the Meridian DSP5000s the best sounding \$7,000 loudspeakers I have auditioned? They are up there, but not at the top. Are they the most advanced, livable loudspeakers I have experienced? Damn straight.

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