

DR. STUART

...OR HOW I LEARNED TO STOP WORRYING
AND LOVE THE ALL-DIGITAL SYSTEM.

BY MICHAEL TREI

The tweaky audiophile community received the compact disc back when it was launched some 22 years ago with about as much enthusiasm as a speech by Michael Moore at an annual NRA convention. While many audiophiles reacted to the sound of early CD players and discs by circling the wagons around their beloved turntables, Bob Stuart and his forward thinking team at Meridian quickly recognized that digital audio was the real way forward. They then went on to develop the very first audiophile approved CD player, and in the two decades since, have been key players in the development of many new digital technologies that push the performance envelope, including DVD-Audio.

Most audio components are developed around a set of standards developed over fifty years ago that define what each component in a system should do. This means that an amplifier from Company A will probably work just fine with speakers from Company B and an FM tuner from Company C. Of course, back then everything was analog, and the most complicated thing you needed to remember was that the record player needed to be plugged into the phono input. More recently, many components

have added digital inputs and even video capability, but the audio still passes through most of the components as an analog signal. That's just fine if you want to make gear that's fairly conventional, but Stuart is hardly the type of guy who settles on a standard approach for anything. By building the system around a digital backbone, while abandoning some nostalgic yearning for analog purity, Stuart thinks you can create a fundamentally better system, albeit one that might not mix and match quite so readily with other brands of gear. The truth is, once you decide to operate most of the system in a digital format, you can start doing a lot of clever stuff that plain old analog gear can't even dream of.

Take the DSP33 digi-

tal loudspeaker and its DSP420 in-wall cousin. These are known as active powered speakers, in that they incorporate separate built-in amplifiers that couple directly to the various woofers and tweeters. In most speakers, the incoming signal from the power amp first goes through a passive crossover circuit that filters the frequencies going to each individual driver. This intermediary circuitry tends to behave a bit like a buffer, softening the ampli-

er's grip on each driver's movement. In an active speaker, the crossover circuitry comes first, and then separate amplifiers are used for the tweeter and woofers.

While the DSP33 may look a bit like a conventional mini monitor, the way it works really couldn't be more different. For starters, the only input signal this speaker accepts is digital, along with a Meridian communication (Comm) signal that allows the front-end components to control the speaker's operation. Meridian supplies



■ Meridian's DSP33 loudspeaker has two digital inputs that can accept the 96kHz/24bit source signal from Meridian's preamp/processors. The woofer and tweeter are powered with 85 watt and 65 watt internal amplifiers, respectively.



Meridian produces a wide variety of components for the G Series including DVD-Audio and Video players, controllers (or preamps/processors) and amplifiers, all of which are designed to interconnect, creating full, integrated systems.

special cables that carry both of these signals from the main electronics to the nearest speaker, then you simply loop the signal out to go to the other speaker, which makes wiring things up much less of a hassle. Inside the speaker, the first

thing the digital audio signal sees is a crossover that does all of its dirty work in the digital domain. From here, the separate woofer and tweeter signals are converted back to analog before feeding the separate amplifier stages that power the drivers. A digital crossover can work with far greater precision than any regular analog crossover could ever hope for, and digital signal processing allows Meridian to incorporate some clever tricks like time aligning the drivers electronically, and carefully controlling the maximum excursion of each driver. This makes it practically impossible to fry the speakers—even if your kid tries to impress his friends by cranking up AC/DC's *Back in Black* to something approaching realistic concert volume.

Housed in a deceptively heavy

metal enclosure, the textured black paint of the DSP33 results in a fairly innocuous looking speaker that doesn't draw too much attention visually, a quality which is no doubt helped by its slender front baffle. If even this is considered too obtrusive, Meridian now has an in-wall version of the DSP33 called the DSP420, using the exact same drivers and electronics in a speaker that flush mounts between a pair of studs in a standard gypsum wall. The DSP420 also uses an aluminum enclosure with an internal volume very close to that of the DSP33, just re-proportioned to fit inside the wall cavity. You can't get much stealthier than that!

While in many cases these speakers will be used as part of a surround-sound system in combination with Meridian's DSP33C center channel speaker, I decide to keep things

focused by going with a simple two channel system using a single pair of DSP33s, along with my regular M&K sub-woofer. Meridian has several components that can provide the necessary digital audio and control signals, and their sumptuous new G Series components allow you to assemble everything from a simple two channel analog rig to the most elaborate surround-sound home theater setups. This new series actually shows one nod toward convention, in that they use fairly standard dimensions instead of the shoe box shaped offerings of the older products. Each model also comes in a choice of silver or black finishes, with a pale blue

■ The combination of DSP loudspeakers and G Series components keeps the signal path digital from beginning to end (with the analog conversion only near the final step), resulting in a truly digital surround system.



display rounding out the look. The construction quality is exceptional, as it should be given the price.

At *Digital TV* we tend to value simplicity so we went with the G91, which Meridian refers to as a "DVD-Audio player controller tuner." That's admittedly quite a mouthful, but it gives you at least an idea of what it does. This is a very high-end DVD Audio/Video player, but one that includes an AM/FM tuner, and a 5.1 channel preamp/processor section designed primarily for use with Meridian's DSP speakers. There are enough inputs to handle most home AV systems, but for a really fancy rig you will probably want the additional flexibility of their G68 Surround Controller.

Hookup for the test system is pretty straightforward, with digital and Comm signals going to the speakers, an RGB video signal going to the CrystalView plasma display, and an analog cable for the M&K subwoofer. For displays that can accept it, there is an HDMI output, with a menu option to make this output DVI compatible.

This system is a joy to use, and once configured it is pretty smart at figuring out what you are trying to do. If you load a disc it will switch to that input.



The G91 DVD Audio Player Controller supports many formats including DVD-Audio, DVD-Video, DVD-R, and MP3—just to name a few—with 16:9 and 4:3 display capabilities.

The large illuminated tabletop style remote is logical and easy to use, even if it weighs enough to make casually tossing it across the room a poor choice.

To give the system a real workout, and to confirm the notion that these speakers are hard to kill, the obvious choice was to crank up tunes from the DVD *AC/DC: Live at Donnington* and wait for the drivers to fly out of the speakers. Well, the only thing damaged was my hearing, and the speakers prove they can play at astonishingly loud levels if needed, while sounding like a speaker about ten times as big. The system has a

whiplash quick ability to start and stop with no sense of overhang, which gives the sound a marvelous sense of clarity. Bass is fast and lean with a fine sense of pitch and exceptional dynamics.

Once my hearing recovered (thankfully), I moved into a gentler mood with the Chesky Records DVD-Audio disc *Swing Live* with Bucky Pizzarelli. I was at this performance when it was recorded, and even through this basic 2.1 channel system, I am able to hear a lot of information about the recording space (which was actually a piano showroom), and the relative positions of the musicians and the audience. The purity and dynamic quickness of the midrange make you sit up and take notice, and with this disc I am able to fine-tune the subwoofer settings quite effectively. I find the DSP33s really do work better when they are supplemented by the sub, but getting the correct level adjustment is quite critical if you want to avoid muddling things up.

With movies and video material the picture quality is hard to fault, and if you have an HDTV display, an internal scaler can provide a 720p or 1080i output in addition to

480p and the standard 480i. BNC connectors are provided in addition to the more common RCA jacks, and these can be switched between component and RGB configuration to match the display. The deinterlacing circuits use the Faroudja DCDi chip set, which prevents any artifacts from being introduced.

Meridian has shown us that there is a better way, as long as we are willing to rethink the way a system is assembled. That, however, becomes a bit of a Catch-22 for them, as many audiophiles will be hesitant to give up the upgradeability that a more conventional system offers, even if they do appreciate the performance benefits. Upgrading from a system like this is pretty well limited to moving further up the Meridian ladder. For those who want to get off the upgrading merry-go-round or who never got on in the first place, the Meridian system offers a somewhat radical solution that works exceptionally well. **[TV]**

RATING: EXCELLENT

DESCRIPTION: Meridian G91 DVD Audio-Video Player/Controller/Tuner; Meridian DSP33 Digital Active Loudspeakers

HIGH POINTS: A clean sheet approach that pushes the performance envelope; big, big sound from very small speakers; easy to use

LOW POINTS: You have to subscribe to the Meridian system approach to reap the full benefits, so it's not for the perpetual upgrader

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PRICE: G91, \$6,995;
DSP33, \$4,725/pair

