

Wireworld Platinum Series 8 Digital Cables

In Search of Neutrality

Andrew Quint

e all know a few, or at least have encountered online, cable skeptics. They sneer at audiophile interconnects and speaker wires, characterizing them as "glorified tone controls," over-engineered and overpriced. Their level of contempt goes up a few notches when the subject is digital cabling. Beyond a build-quality that assures physical integrity and longevity, the enlightened ones will tell you that the cable that came with your printer will work as well as it needs to in an audio application. So long as the data coming out is the same as the data going in, there's nothing to improve upon.

Don't try this line of reasoning with my neighbor Charles, who is a Senior VP and Chief Information Officer for a large international chemical corporation. When I mentioned I'd be trying out some premium digital cables in my stereo system, he had this to say: "In an industrial or supercomputer context, the wrong choice of cabling will introduce unwanted noise, dropped packets of information, data slowness, and more. We avoid any cabling solutions that would degrade the performance of the system on either end of that cable, resulting in a user's negative experience." If a high-level IT professional considers cabling to be this critical, should we also feel that way about the digital wires in our audio systems? Yes, we should.

David Salz, who founded Wireworld Cable Technology in

1992, has encountered his fair share of cable skepticism and has long recognized that addressing it is key to the success of his own company, and to the health of the audiophile cable trade in general. To this end-and, more importantly, to assure the continued development of his own products—Salz patented his Cable Comparator methodology 25 vears ago (see Sidebar). Salz's testing and optimization of digital data cables goes back to Wireworld's earliest days. "As one of the first few owners of the original Theta DAC in the 80s, I learned early on that cable-bypass testing worked just as well with digital connections as it did with analog," Salz told me. "I learned that reducing all types of noise and improving electromagnetic efficiency were just as critical in digital cables as they are in analog cables."

Wireworld sent for consideration its four best digital cables, three from the Platinum Starlight 8 series (SPDIF coaxial, balanced AES/EBU, and USB), as well as its top HDMI model, the Platinum Starlight 48.

Platinum Starlight 8 75-ohm Coaxial Cable

Wireworld's most advanced conductor technology is its patented DNA Helix® geometry (DNA for Delineated Neutralizing Array) that's employed in both analog and digital cables. This design features layered flat conductors arranged in parallel strands, a configuration that's felt to prevent the electrical eddy

Equipment Report Wireworld Platinum Series 8 Digital Cables

Specs & Pricing

Price: Platinum Starlight 8 75-ohm coaxial cable, \$3400/2m;

Platinum Starlight 8 110-ohm AES/EBU cable, \$1800/1m;

Platinum Starlight 8 USB 2.0 cable, \$800/2m; Platinum Starlight 48 HDMI cable, \$1000/1m

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currents often observed with standard stranded or solid-core wires. There are three 12-stranded groups of OCC®-7N solid-silver conductors moving the data along. Cable aficionados will immediately understand the significance of this parameter: "Ohno Continuous Cast" is a technique for manufacturing wire that allows for a single copper or silver crystal to be drawn to a considerable length, up to 100 meters. This method eliminates grain boundaries that are introduced by conventional wire-drawing techniques. Many high-end cable manufacturers employ this material to provide the best possible signal transfer. The insulation is Composilex®3, engineered by Wireworld to reduce both signal loss and the "triboelectric noise" that derives from the electrical charge generated when dissimilar materials rub together. The RCA plug contacts are silver-clad OFC. All Wireworld digital (and analog) cables are directional (see Sidebar).

Platinum Starlight 8 110-ohm AES/EBU Cable

This balanced digital cable, like the 75-ohm SPDIF model, is built with three groups of OCC®-7N silver conductors, though each group has 13 strands, rather than 12. Composilex®3 provides insulation, and the contact material on the reassuringly substantial XLR connectors is a silver-coated copper alloy.

Platinum Starlight 8 USB 2.0 Cable

Wireworld's best USB cable features a "Uni-Path" geometry, rather than the more complex DNA Helix design of the SPDIF and AES/EBU interconnects. The company is a little vague regarding technical details but offers that Uni-Path "provides extreme immunity to interference," while minimizing signal loss and crosstalk inside the cable. The power conductor is carefully isolated from the 28-gauge solid-silver signal conductors; terminations of various combinations of USB Λ , B, micro-B, and C are available, all with 24k-gold-plating and carbon-fiber shells. The insulating material is Composilex \$\mathbb{8}{3}\$.

Platinum Starlight 48 HDMI Cable

In recent years, audiophiles have found fewer applications for the HDMI interface in a strictly audio context. But I use it for

multichannel music via an older 7.1 processor. Platinum Starlight 48 is the current iteration of Wireworld's top HDMI wire—the flat form-factor definitely turned some heads when it was first introduced in 2006. It deploys 4N solid silver in a Uni-Path configuration and, Composilex®3. The Starlight 48 is the only available HDMI wire with carbon-fiber plugs. As the "48" in its name implies, the cable supports the 48Gbps data rate required for a number of demanding video applications.

Surveying the four identical, faux-metal, miniature flight cases that serve as packaging for Wireworld's digital cables, I concluded that a systematic approach to auditioning them would be mandatory to avoid psychological peril and decided on a series of non-blinded A/B comparisons with familiar products. Usually, I find head-to-head comparisons to be of limited utility-it's unlikely the product being compared to the review item is known well to the reader—and, in any event, the best comparator is live music, at least it is to TAS writers and many subscribers. But these are not meant as "shoot-outs." Rather, they are intended to further an understanding of what effect substituting a Wireworld cable will have on the sound of a complete system.

This was my approach: (1) The competitor cables were ones that I had used extensively over the past five years. Several manufacturers and price points were represented.

(2) Although my Baetis Reference 3 server has outputs for all four of the cable interfaces, it was necessary to

Rule No. 1 of audio reviewing: Be sure you *really* like your test tracks.

employ three different DAC/ preamps to accommodate them as inputs—a Tidal Audio Contros (for SPDIF and AES/EBU), the Theoretica Applied Physics Baach-SP adio (for USB), and my trusty Anthem D2v for HDMI. Those three devices powered Tidal Ferios monoblocks directly.

(3) There's not a cable manufacturer on earth who won't be unhappy if there's a wire in the signal path made by someone else. I gratefully accepted the loan of Eclipse 8 balanced interconnects (a 5-meter pair, \$1525) and speaker cables (a 2-meter pair, \$1920) to replace my usual Transparent Audio networked cables for this review.

(4) I auditioned each digital wire and its competition with four pieces of music-the opening Allegro amibile from the Brahms E-flat major Clarinet Sonata (McGill/Chien), the first movement of Shostakovich's Symphony No. 15 (Haitink/Concertgebouw), "This Town" from Patricia Barber's 2021 Clique, and Lyle Lovett's "I've Been to Memphis" from Joshua Judges Ruth. I did the comparisons twice, once with each of my reference loudspeakers, Magico M2s and JansZen Valentina P8s (a hybrid electrostatic/dynamic design). If you do the arithmetic, that comes out to hearing each of the four musical selections 16 times. Rule No. 1 of audio reviewing: Be sure you really like your test tracks.

Equipment Report Wireworld Platinum Series 8 Digital Cables

Wireworld SPDIF (2 meters/\$3400) vs. Apogee Wyde Eye SPDIF (3 meters/\$85)

One surprising finding of this exercise was that the inexpensive Wyde Eye coaxial SPDIF wasn't embarrassed by direct comparison to Wireworld's priciest digital interconnect. However, the many demonstrable differences did show clearly that critical listeners cannot choose their data cables casually. On the Brahms recording, the clarinet tone was more richly characterized with the Wireworld cable, especially in the instrument's low "chalumeau" register. It better captured the ebb and flow of Anthony McGill's performance, the metric that our friends across the ocean sometimes refer to as "pace." For much of the Patricia Barber selection, acoustic bassist Patrick Mulcahy accompanies the singer by himself, a dazzling display of musical inventiveness and virtuosity. There are many extramusical sounds-buzzes, snaps, scrapes, and the initial transient of a firmly plucked string—that, with the Platinum Starlight cable in service, sound more believably attached to the pitched part of a note. "I've Been to Memphis" practically jumps out of the speakers with both cables, but with the Wireworld the rollicking barrelhouse piano and punch-to-the-gut snare drum will knock the listener back in his chair a bit more.

Wireworld AES/EBU (1 meter/\$1800) vs. Shunyata Research Anaconda AES/EBU (1.5 meters/\$1438)

Shunyata's 110-ohm balanced digital cable has been a favorite for years. However, the Wireworld AES/EBU reproduced Barber's voice at a level of purity previously unheard, utterly uncolored yet fully characteristic, the singer easily identifiable after just a note or two. On the Brahms clarinet program, McGill's tone was more focused, and subtleties of his accompanist's touch were fully illuminated. With the Shostakovich symphony, A/B com-

parisons suggested that the Shunyata manifests a slight upward tonal tilt that could obscure the fullness of certain instrumental signatures—bassoon, for example. Dynamics on the Lyle Lovett song were startling, with a sense of headroom to spare.

Wireworld USB 2.0 (2 meters/\$800) vs. Revelation Audio Labs Prophecy Cryo-Silver Reference DualConduit USB 2.0 (1.25 meters/\$799)

With the cryogenically treated Revelation Audio, the piano tone on the Brahms program was a bit brittle, compared to the Wireworld specimen, where a lean sonority made the composer's densely scored piano part more intelligible; likewise, Patricia Barber's sibilants were overly prominent with the Revelation cable. However, compared to the Starlight 8, bass was more substantial via the Revelation and the fluidity of Lovett's arch vocal insinuations was readily appreciated with the Prophecy in the signal path. With the Wireworld USB, dynamic slam on "I've Been to Memphis" was impressive, though I could see how this could become fatiguing over time.

Wireworld HDMI (1 meter/\$1000) vs. Transparent Audio Premium HDMI (1 meter/\$310)

Listening to the Shostakovich symphony recording, the Transparent and Wireworld products offered a very similar representation of space, as well as scale, color, and detail. Front-to-back layering of orchestral sections was as good as I've heard with any HDMI cable. Both allowed one to attend successfully to simultaneous musical events—say, Barber's sculpting of the vocal line and the bass pyrotechnics. Microdynamics were better with the Wireworld cable—something I noticed with all the Platinum Starlight wires and likely a consequence of a lower noise floor-which translated into more lifelike dynamic gradations. On playback of the Lyle Lovett album via the Wireworld cables, bass was fuller without bloating.

If it seems that my depictions of the four cables' sonic virtues are similar...well, that's right. Wireworld's top range of digital connectors do sound very much like



Equipment Report Wireworld Platinum Series 8 Digital Cables

one another, which is to say that they don't sound like anything at all, achieving David Salz's goal of neutrality. With different sonic parameters and to different degrees, they sounded different from the comparator cables I put them up against. Although I have a fairsized collection of digital wires, I've amassed them largely through inertia rather than intention. In the course of living with the Wireworld cables, I've come to the realization that my preference for a given digital interface protocol in my audio system-SPDIF vs. AES/EBU, USB vs. HDMI, whatever-may have had more to do with the cable connecting the digital source and DAC than the components themselves. The better your system is, the more important it is that your cables—all your cables—aspire to neutrality. Otherwise, you're not getting your money's worth from your carefully chosen electronics and transducers. Wireworld's products have been designed with the goal of making "cable matching" in most perfectionist audio systems a thing of the past.

It turns out that Charles, tech-savvy executive down the hall, is a nascent audiophile. He's a fan of American jazz from the 1950s to the 70s and cherishes memories of discovering this music with his late father. A man of means, Charles will be making a six-figure investment in a whole-system upgrade. Dealers can sometimes encounter resistance in a customer like this when they advise against scrimping on the wires. But Charles, remember, knows

about the dangers of false economy "in an industrial or supercomputer context." He told me: "Replace 'industrial supercomputing' with 'any AV equipment manufactured after 1980' and the accuracy of the parallels are uncanny. If not for nostalgia or a grossly poor attempt at humor, why use anything less than the best digital cables you can afford for your system?"

I think that Charles will do just fine in his audiophile pursuit

Wireworld Founder and President David Salz Explains Cable Bypass Testing and Directionality in Data Cables

I KNOW THAT you've been into audio and music since you were a kid, but did you have a formal engineering background before getting involved in the home-audio industry?

David Salz: None, but I've been studying industrial design, science, and the history of technology since I was very young.

Could you explain how cable-bypass testing is done?

I created the term "cable polygraph" to describe cable listening tests that include a true reference that serves as the test control. The reference is a direct connection, also called a cable bypass, which eliminates the cable under test. These tests can be accomplished with a Cable Comparator or manually, by docking components together with adapters to create the reference. Optimal bypass adapters will make the shortest and lowest loss connections, with complete isolation of power connections required for USB and HDMI testing. The direct connections are usually made with high-quality silver-plated connectors soldered or screwed back-to-back. In some cases, an inch or two of wire is necessary between the connectors. Comparing plating options on these reference connections is enlightening. The commonly used gold and rhodium contacts sound compressed and coarse in comparison to silver, which has far lower contact resistance.

I've used many audiophile and pro-audio brands of gear for both development and musical enjoyment. Because my testing methodology involves docking components, small size and the right connector layout can be as much of a priority as sound quality. Because of those requirements, the best fit for my most recent test systems is the Bel Canto e.One series, but I end up testing on a variety of systems and brands of gear. The importance of these tests cannot be overstated, as they provide the

only objective proof that standard cables degrade fidelity. They also provide the only way to learn how much music is being lost in a cable. Invariably, the cables that preserve the quietest musical information also have the least tonal coloration, tightest image focus, and widest dynamic contrasts.

Could you explain directionality in data cables?

The internal grain structure of all copper and silver conductors is relatively short and angular, no matter what the suppliers claim. The individual grains are formed into a funnel shape by the extrusion and drawing processes that create the final diameter of the strands. The result of that angularity is that conductors perform differently in both directions. That difference, which effects both analog and digital connections, is apparently caused by one direction being quieter than the other. Realizing that conductor directionality effects cannot be eliminated, we created a process called "Grain Optimization" that maximizes the size of the grains and orients the conductors for the minimum effect on music. This process minimizes sonic artifacts that would otherwise interfere with the natural organic sound of instruments and voices.

The fact that reversing the direction of data cables causes the sound to change proves that they are extremely sensitive to the noise caused by grain-structure effects. We know that grain structure causes those changes because it is the only non-symmetrical element in the cable. Furthermore, those sonic differences only exist with continuous streamed signals because they are a single transmission with no error correction. Conversely, saving a file over USB is lossless because the error-correction system resends any data that was missing on the first transmission. If data connections were as perfect as some people claim, error-correction systems would be unnecessary.