

# Product Review

## DH Labs Cables

By Gary Galo

*D.H. Labs Air Matrix Interconnect; Q-10 Loudspeaker Cable; Deluxe Toslink Optical Digital Cable; Improved D-75 S/PDIF Digital Interconnect. D.H. Labs, Inc., 612 N. Orange Ave., Suite A-2, Jupiter, FL 33458, 561-745-6406, www.silversonic.com. Air Matrix, \$195/1m pair; Q-10, \$225/8ft stereo pair, \$10/ft bulk; Deluxe Toslink, \$45/1m; D-75 RCA, \$75/1m; D-75 BNC, \$100/1m.*

Back in *Audio Amateur* 2/94 I reviewed some high-value cables from D.H. Labs, the Silver Sonic BL-1 interconnect and T-14 loudspeaker cable. Since that time, D.H. Labs has developed some impressive new cables for their Silver Sonic line, designed to compete with some of the most expensive cables available. The Air Matrix Interconnect is manufactured with oxygen-free copper plated with high-purity silver, and a Teflon-foam dielectric.

The Air Matrix dielectric is a sophisticated PTFE Teflon foam that is actually 60% air. Unlike conventional foam dielectrics, the Air Matrix is not simply a solid plastic containing air bubbles. This dielectric has a texture resembling a fine matrix, and can only be seen under a microscope. The excellent uniformity of the Air Matrix dielectric gives it excellent transmission properties to beyond 17GHz.

D.H. Labs' Darren Hovsepian explained that a 60% air/40% Teflon ratio yields an optimum combination of rigidity and performance. Once you increase the air component to 70% or beyond, the dielectric becomes too soft, and is too easily compressed. Compared to solid Teflon—such as that used in the BL-1 interconnect—the Air Matrix exhibits both lower capacitance and lower inductance. The dielectric constant of the Air Matrix is 1.4, compared to 2.1 for solid Teflon, and the propagation velocity is 84%, compared to 69% for Teflon (with dielectric constant, the



**PHOTO 1: D.H. Labs newest cable products. From top to bottom, the improved D-75 digital interconnect with silver-plated center conductor, Deluxe Toslink Optical Cable, Q-10 Speaker Cable, and Air Matrix analog interconnect fitted with a locking RCA connector.**

lower the number the better; propagation velocity is just the opposite).

The Air Matrix cable is around 5/16" in diameter, and is not sold in bulk form. D.H. Labs offers the cable in a variety of stock lengths, and will assemble any custom length required. Check their website for pricing.

D.H. Labs tells me that some individuals have been buying BL-1 cable bulk, and selling it with inferior RCA connectors, claiming that these products are still D.H. Labs cables. In order to guarantee quality control over this new cable, the manufacturer will only sell it pre-fitted with their premium-quality gold-plated, Teflon-insulated locking RCA connectors. These are among the very finest RCA plugs you'll ever see, and a distinct improvement over my old standby, the Canare F-10.

Both the shield and center-pin are a one-piece design from front-to-back. These connectors also feature a highly effective clamping system. After plugging the connector into an RCA jack, you simply turn the threaded outer sleeve to tighten the shield connection. The locking RCA connectors are also available separately for \$15 each.

### AIR MATRIX PERFORMANCE

D.H. Labs sent me enough Air Matrix cable to connect a 1m pair between my D/A converter and preamp, and a considerably longer run (about 15 feet) to go between my preamplifier and power

amps. Previously, I had been using identical lengths of BL-1 cable. I found the Air Matrix cable to be a remarkable improvement over the BL-1, not at all subtle.

The most noticeable difference is the increase in fine detail and resolution, combined with greater air and space around the instruments. The treble region is utterly smooth and transparent, and the tonal balance is extremely neutral. The increased resolving power of this cable improves soundstage localization, as well, resulting in a more lifelike 3-dimensional sonic presentation.

The Air Matrix cable is not inexpensive, but it is well worth the asking price when used in a high-performance audio system. It should compete very favorably with cables costing hundreds of dollars more in high-end retail stores. This is a truly remarkable high-end cable.

### Q-10 LOUDSPEAKER CABLE

The Q-10 loudspeaker cable is based on the same materials and construction as the T-14 I reviewed back in 1994, including silver-plated, oxygen-free copper conductors and pure Teflon insulation. But, the Q-10 is a four-conductor configuration—two 14AWG conductors and two 12 AWG in a single jacket. Used in parallel, this yields an equivalent 10AWG cable. Alternately, you can use one length for bi-wiring, with the larger

conductors on the woofers, and the smaller ones on the higher frequency drivers.

D.H. Labs sent me enough wire to go "all-out." Four lengths of Q-10, two per channel, feed my ACI Sapphire III satellite loudspeakers, in a bi-wired configuration (with my custom, all-polypropylene crossover on the Sapphire III tweeters), and two more short lengths feed the ACI Sub-1 subwoofers. A pair of Monarchy SE-100 Deluxe power amplifiers power the loudspeaker systems.

The Q-10 cable was designed primarily for difficult loudspeaker loads, so I was unsure whether there would be significant differences between the new wire and the T-14 on my ACI system, which is a rather benign 4Ω load. I was surprised to find a noticeable improvement in the spatial characteristics of my system with the Q-10 cable. Localization within the soundstage is more precise, with a more realistic sense of the acoustic of the recording venue. The lower midrange has greater warmth and harmonic richness, particularly evident on massed low strings.

If you use only one length of Q-10 in a bi-wired setup, I would expect the performance to be quite similar to two runs of T-14. I recommend double runs of the Q-10 if you can afford it. The Q-10 didn't provide much improvement in the low bass, compared to the already excellent T-14. But, my subwoofer cables are less than two feet long—I would expect a greater improvement with longer cable runs.

D.H. Labs sells a variety of gold-plated spade and banana connectors for their speaker cables. For 10-14 AWG cables, they have the SP-1 for normal-size 5-way binding posts, and the SP-1W for wider posts. The SP-2 and SP-2W will accept an 8 AWG cable. Two conductors of D.H. Labs Q-10 will fit the SP-1 or SP-1W.

The SP-2 and SP-2W will accept four conductors, though you may need to enlarge the opening slightly. You'll need the SP-2 variety for the power amp end if you are bi-amping using two separate runs of Q-10 cable. I strongly suggest soldering rather than crimping these connectors (or soldering *in addition* to crimping).

## D-75 AND TOSLINK IMPROVEMENTS

D.H. Labs has made a slight change in their D-75 S/PDIF digital interconnect—the solid center conductor is now silver plated. I compared digital cable using my Parts Connection D2D-1 Sample Rate Converter and DAC 3.0 Digital Processor. I fitted a 1m length of the improved cable with Canare 75Ω BNC connectors and found it to be slightly better than the original D-75. The sonic presentation is a bit more transparent and detailed than with the previous D-75.

This is an incremental improvement, and you don't need to throw out your old D-75. But, on a high-resolution system, the difference is audible. Darren Hovsepian says that he is also receiving positive reports on the video performance of the improved D-75 in high-end home-theater applications.

D.H. Labs is also carrying a Deluxe Toslink Optical cable, which I found markedly superior to the Kimber OPT1 that I reviewed in *Audio Electronics* 4/99. For comparison, I gave these cables the ultimate test: passing 96kHz/24-bit data from my Pioneer DV-525 DVD player. I realize that Toslink was not designed for 96kHz operation, but when the DV-525's digital output is set to 96kHz, *both* the S/PDIF coax and the Toslink optical output operate at this frequency.

On the Classic Records DVD transfer of the Vox/Turnabout's 1967 recording of Rachmaninoff's *Symphonic Dances*, the strings sound quite gritty and unrefined with the Kimber interconnect. Changing to the D.H. Labs Deluxe Toslink cable removed most of the high-frequency grunge. In fact, I was quite surprised at just how good this recording sounded using the D.H. Labs cable—not as good as their D-75 coax fitted with 75Ω BNC plugs, but very respectable nonetheless.

Darren Hovsepian said that they simply used the widest bandwidth optical fiber they could find for this cable, but I noticed two other differences. The termination on the D.H. Labs cable has a visibly better polish than the Kimber, and the D.H. Labs cable also makes a mechanically tighter fit when plugged into the Toslink transmitter and receiver modules. The Kimber interface is looser, and easily wiggled out of opti-

um alignment. Imprecise mechanical alignment has always been a shortcoming of the Toslink interface, but the D.H. Labs cable improves the situation considerably.

Another nice feature of the D.H. Labs cable is the protective end cap. As you can see in *Photo 1*, the cable has a retainer which prevents you from losing the end cap, which will help prevent damage to the cable terminations during storage. The D.H. Labs Deluxe Toslink Optical cable is also priced \$15 less than the Kimber.

D.H. Labs' new cable lineup, especially the exceptional Air Matrix analog interconnect, has put them in a new league among cable manufacturers. Their earlier cables provided great performance for the money, and I found them eminently satisfying in my own reference system. These new cables put D.H. Labs in direct competition with some of the most expensive cables available, and the prices are still very fair considering the high level of performance they offer. You won't be disappointed with these excellent products. ♦