

EQUIPMENT REPORT

AudioQuest Diamond USB Cable

Faceted, Polished, and Colorless

Robert Harley



The replacement of the S/PDIF interface by USB as the *de facto* standard for transmitting digital audio has been surprisingly rapid. Even more surprising is how variable in sound quality USB can be. No two implementations of the USB interface sound the same, with a huge performance gap between the best and the worst. The good news is that some talented high-end designers are addressing the problem, raising the bar in USB performance. The very best implementations are now very good indeed.

All of these observations about USB also apply to USB cables. There are, in fact, larger sound quality differences between USB cables than between S/PDIF or AES/EBU cables. Generic USB cables designed for connecting computer peripherals are so bad that even a \$29 designed-for-audio USB cable offers a huge leap in performance.

So how good can a USB cable get? I discovered the answer when I replaced an excellent \$80 USB cable with a 1.5m run of AudioQuest's top-of-the-line Diamond USB (\$549 for .75m, \$695 for 1.5m) in my music-server system. (I use an iMac running iTunes and Pure Music, a Berkeley Audio Design Alpha USB Interface, and a Berkeley Alpha DAC, later replaced by an Alpha DAC Series 2.) It turned out that the state-of-the-art in USB cables combined with a state-of-the-art USB interface sounds absolutely spectacular. My music server system took a significant leap in sound quality. Diamond USB may be quite expensive, but in the context of my system, it is well worth the price.

The Diamond cable is built from solid silver conductors—what AudioQuest calls “Perfect-Surface Silver” (PSS)—terminated with silver-plated connectors. AudioQuest's 72V Dielectric Bias System (DBS) applies 72V across the dielectric via a battery attached to the cable. A wire attached to the battery's negative terminal runs down the cable's length. The battery's positive terminal is connected to a shield around the conductors. Note that the battery's + and - terminals are not connected together, so no current flows, which is why the battery will last for years. The idea is to saturate and polarize the dielectric so that it performs optimally at all times, and with no break-in required.

AudioQuest's Diamond USB delivers exceptional resolution of detail, but at the same time is relaxed and easy-going. The cable presents a huge amount of information, from very low-level spatial

cues, to inner timbral information that conveys the mechanism by which instruments create sound, to micro-dynamic nuances. For example, I've been listening to Rachmaninoff's *Symphonic Dances* in 176.4kHz/24-bit via Reference Recordings' HRx format for two years and know it well. After putting Diamond USB into the system, I heard even more very low-level information, particularly very quiet instruments at the back of the soundstage. This increased density of detail expanded the soundstage, particularly in depth, heightening the sense of a large acoustic replacing the acoustic of my listening room. The increased resolution also made timbres more richly saturated and lifelike.

Concomitantly, the presentation became gentler and smoother. The treble, in particular, was revelatory. Thanks to the elimination of hardness and glare, I could listen at higher volumes without the sound bothering my ears. The presentation became more musically vivid without becoming more sonically vivid—a rare feat that I greatly value. It is this combination of resolution and ease that makes Diamond USB special.

When critics of premium audio cables complain about cable pricing, I suggest that they perform a simple test: Listen to the system for a couple of weeks with the expensive cable installed, and then replace the expensive cable with what they had been using before, or with a lesser-quality cable. They should then ask themselves: “Am I willing to live without the qualities the better cable delivers?”

I suspect that anyone who performs this test with Diamond USB won't want to take it out of his system. **tas**

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