

EQUIPMENT REVIEW

Cardas Clear cables

By Alan Sircom

Cardas is not a cable company that comes out with a new product every few months. And it certainly doesn't add a new layer of cables on the top of its portfolio regularly. So, when Cardas Clear was first seen at the CES last year, there was a bit of a stir.

The thick, blue cable represents George Cardas' crowning achievement, and takes all the company's patented technologies found on Cardas already-well-respected ranges of Litz-design cables to new levels. In essence, Clear takes the tried and trusted geometry of the Golden Reference cable; including 'Golden Section', multi-gauge stranding in a symmetrical, helical tri-axial design and 'Constant-Q' construction, which places the smallest strands of the cable at the centre of the conductor to reduce stored energy and conductor resonance. Cable resonance is further reduced with what Cardas terms 'controlled propagation' and 'crossfield' construction, which means matching conductor to dielectric characteristics by using carefully computed strand layering.

What this means in simple terms is Cardas slowly builds up strand-upon-strand of increasingly larger low-eddy copper wire, until the inside of each conductor looks like a little copper nautilus shell in cross-section. This is then thrice-shielded and coated in its own dielectric and these conductors then form their own Golden Section layout, alongside Teflon pipes creating a useful dielectric of air.

Clear takes this already demanding construction to obsessive-compulsive levels. The geometry has been improved still further, to produce an ultra-fine tubular construction. It still retains the basic Cardas DNA, copper conductors, Teflon and air dielectric, rhodium-based connectors, but each and every aspect of the cable have been modified in the process.

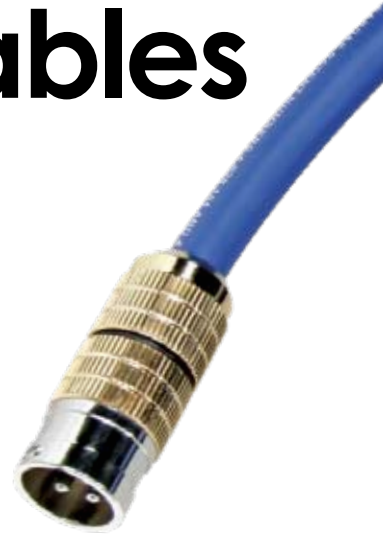
Nothing is left to chance at Cardas. For the record, some companies buy cable off the shelf, some 'roll their own', but Cardas takes the long route. The cables are actually drawn and annealed from copper rod using the company's own equipment – because most commercially available copper was not of sufficient quality to make it to high-end cables. Let's face it, any company so determined that it buys its own foundry to make its own cables, is going the distance; even Jamie Oliver doesn't go as far as owning his own farms. Even this wasn't enough for Clear though. George Cardas went back to first principles, discovering new insights into metallurgy and the relationship between conductor and dielectric in the process.

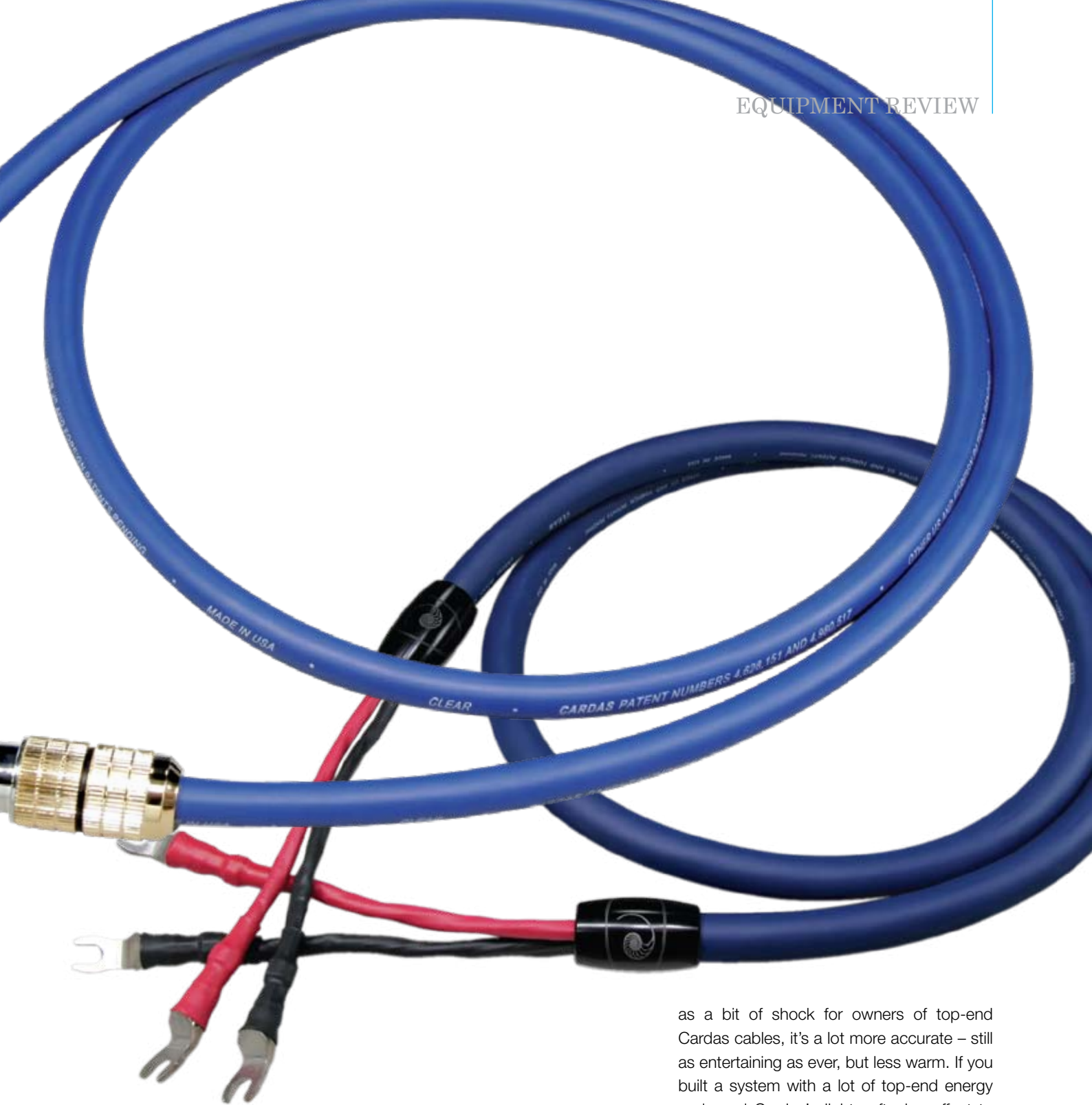
Here's what we mean. Cardas traditionally uses its

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Eutectic Solder to connect the loudspeaker cable to the spade lug. Not so with Clear; instead, there's a new forging process, which means Cardas forges the spade lug directly, joins the lug to the cable by further compression forging, which crimps metal on metal so powerfully it's almost impossible to think in terms of separate pieces of metal. Of course, this does make the spade lugs difficult to use in some quarters – they don't like WBT terminals, for example – but the connection is as good as it gets. The quality of connection in both the phono and air-sealed XLR plugs – all custom designs – is similarly uncompromising.

There's a high degree of consistency in Clear. The balanced and single-ended interconnects and the loudspeaker cable are functionally identical in sound. But that doesn't mean a 'family' or 'house' sound;





instead Clear sounds as close as you can get to having no sound.

That might sit almost uncomfortably for Cardas fans, at least at first. The cable range starts warm and entertaining, with an expansive soundstage, but not so strong in detail resolution, top end clarity and dynamic range. As you climb the Cardas ladder, so you get more of the good bits and less of the bad bits, but some have felt that even up the top end of the range, there's a bloom to the bass and upper mids that – while immensely attractive – deviate from absolute accuracy and do perceptibly slow the sound. Previously, even at the breathless end of the Cardas range, the cables traded pace for space; a big, luxuriant and sublime soundstage, but at the expense of the sort of pace that would make the product appeal to Naim owners, for example.

Clear redraws the map. Although still musically insightful and expansive, this is a cable that is as neutral as they come. No more upper-mid softening, no more bass bloom, but a lot more dynamics and energy. This might come

as a bit of shock for owners of top-end Cardas cables, it's a lot more accurate – still as entertaining as ever, but less warm. If you built a system with a lot of top-end energy and used Cardas' slight softening effect to compensate, Clear will expose that energy in full effect. In fairness, at the level where you'd use cables of Clear's status, you shouldn't be thinking of using cables as filters.

Clear also helps increase the perceived speed of the overall sound, too. There are some cables that make a big thing of transients, making leading edge transients appear so filled with attack they almost make the music sound like it's a couple of beats per minute faster. Of course, this isn't the case, but it's a common audible illusion, all the same. Cardas is not known for its speedy transients, but Clear redresses the balance. ▶

- ▶ This is a faster cable than usually heard from Cardas, with leading edge delivery that might even endear Clear to those who normally shy away from Cardas designs. I still maintain the Cardas/Naim connection is an unlikely one (in the past, Litz-construction speaker cables and Naim amps were a distinct no-no), but this has far more pace than previous Cardas cables.

But, perhaps the biggest demonstration of Clear's superiority happens when you take the cable out of the system. Other cables sound contrived by comparison; perhaps brighter treble, seemingly deeper bass or a faster overall sound. But these seem like sounds imposed upon the system; Clear genuinely sounds like there's no such imposition. Especially in bass depth – everything else either makes the system sound slightly light or slightly 'tweaked' by comparison. Here, bass depth and definition is absolutely state of the art. Interestingly, Clear seems to make other cables seem 'noisy' by comparison, but when comparing side by side with lesser cables, pin-pointing the source or nature of that noise is functionally impossible. Nevertheless, when played

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to people with no vested interest in the matter, they talk (without prompting) about noise levels between Clear and other cables.

In the early days of hi-fi, cables simply didn't matter. Then they did. When people began to recognise the difference cables made, the guidelines at the time were to spend something between five and fifteen per cent of the total cost of the system on ancillaries like cables. Recently, all hell broke loose, and you can get a £20,000 system sporting £35,000-worth of cables. Cardas Clear makes a good case for moving back to that five-to-fifteen per cent rule.

Here's why, if you have a good, but not expensive system and slot in Cardas Clear, the performance will improve, but only up to a point. You'll come away impressed, but not mind-boggled. Put the same cable into a system where it's appropriately balanced and there will be at least a 75 per cent increase in bogging.

A good analogy here is HD television. If you sign up to a HDTV service and play the picture through a HD-ready 15" TV screen, you'll see a small difference, but wonder what all the fuss is about. Replace that baby screen with a whopping great 50" plasma, and the difference between standard and high-definition pictures are easy to spot and even easier to justify.

If you are going through a radical series of upgrades, moving from a high-end to a very, very high-end system, Clear could be your first 'super-serious' purchase. It's like setting a neutral point of reference in the wiring, ticking off one of the many boxes in advance of the next series of big purchases. I'd guess Clear is unlikely to be many people's first cable; they will have risen through the ranks. If so, there is a high likelihood that people will have had some experience with Cardas cables before. Clear represents the best of Cardas, so if you are already impressed with Cardas but want more, Clear could be the first, 'last' upgrade you make, sure in the knowledge that however high up the audiophile ladder you climb, Clear will be there, waiting for you to catch up. Little wonder that George Cardas considers this his "most enduring statement." And it is

– the level of uncompromising engineering that goes into this cable commands a lot of respect, even from the most cynical of cable sceptics.

But, there's more; there's Clear Beyond. That's a double-strength (eight conductors instead of four) speaker cable designed for bi-wiring, or serious shot-gunning, for the absolute pinnacle of performance. But more about that later... +

TECHNICAL SPECIFICATIONS

Cardas Clear Interconnect

Outside Diameter: 10.2mm

Dielectric Type: Teflon, Air

RCA Capacitance: 16 pf/ft

XLR Capacitance: 8 pf/ft

Cable AWG: 25.5

Shield Type: 100% spiral x 2 and Teflon graphite composite

Conductor Type: Matched

Propagation, Golden Ratio, Constant Q, Crossfield, Pure Copper, Litz

Connectors: Cardas custom SRCA or XLRs

Cardas Clear speaker cable

Outside Diameter: 15.2mm

Dielectric Type: Teflon®

Inductance: .0176 uh/ft/loop

Capacitance: 278 pf/ft

Bi Wire Option: No

Cable AWG: 8

Conductor Type: Perfect Mirror Quadaxial

Connectors: Forged spade lugs compression die forged to cable

Prices as tested:

Clear (RCA) £1,650 for 1m pair

Clear (XLR) £1,950 for 1m pair

Clear loudspeaker cable £3,550 for 2x2m terminated pair

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