

The basic building blocks of a Cardas cable have been constant since day one. Our own, Ultra Pure Copper, produced using our proprietary method. Multi-stranded Litz conductors, with strand size varying in Golden Ratio steps. Top quality dielectric materials and innovative air-tube dielectric suspension techniques. Premium connectors machined from copper & brass, plated with silver, and a flash of rhodium. Terminations performed by skilled craftsmen, using Cardas Quad Eutectic Solder and Cardas Rosin Flux Soldering Paste. These design elements were present in the original Cardas cables, like Quadlink & Hexlink, and former flagships such as Golden Cross & Golden Reference.

Our Clear cable line combines all of this with Matched Propagation Technology, the subject of George's most recent patent (US Patent 7,674,973), which matches the propagation rate of the conductor to that of the dielectric, eliminating time-smear distortion, improving musical integrity and dynamic range.



## Cardas Copper

At the heart of a Cardas cable is our Ultra Pure Cardas Copper. Mined in the Southwest USA and processed the Northeast, we employ proprietary drawing and annealing techniques to create the highest quality, purest copper strands. A Single Poly-Nylon coating is applied to prevent oxidation, and eliminate crosstalk between strands.

Viewed through a microscope, typical copper wire appears shredded and interleaved with impurities.



Cardas Copper, however, is drawn & annealed very slowly through Silver dies, in an Oxygen free, Hydrogen reduction atmosphere. The result is grain free, perfectly smooth and 99.9999% pure Copper strands.



In addition to our own cables, Cardas Copper is used by other high-end audio manufacturers, and in scientific applications.

## Golden Ratio Scaled Conductors

As implied by our Nautilus Shell logo, the Golden Ratio is applied to many Cardas products, including our Litz conductor



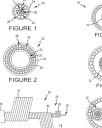
designs. In a Cardas multistranded Litz conductor, the smallest wires are at the center, with each layer increasing in size at a Golden Ratio step (1:1.618). This innovative micro resonance control technique was the subject of

one of George Cardas' first US patents, and is present in all of our cables & chassis wires.

## Matched Propagation

The subject of George's 2008 US Patent (7,674,973), our Clear product line features Matched Propagation Technology, in which the propagation rate of the conductor is controlled through its internal geometry to match that of the dielectric

material. These conductors overcome challenges dating back to the early days of the telephone. However, whereas those conductor/dielectric mismatches were dealt with using network boxes, Matched Propagation Conductors solve the problem within the cable itself - keeping the signal intact the entire way, rather than attempting to fix it after the fact.





Terminating, or "putting a connector on" a Cardas multi-stranded Litz conductor requires skill and special equipment. We use our own Cardas Quad Eutectic Solder and Cardas Rosin

Flux Soldering Paste, along with 800°F (427°C) irons & 700°F (371°C) solder pots. Our flagship speaker cables are terminated with a solder-less, compression die forging process in which the copper of the conductor



FIGURE 3

and connector fuse together as one. These procedures are performed by our talented staff of Cardas Terminators, with decades of combined experience.

## **Cardas Connectors**

Cardas connectors are machined from billet copper or brass, and plated with silver and a flash of rhodium. In addition to our own cables, Cardas connectors can be found on some of the finest equipment in the world.