Graphene Lumniscate

An Introduction

The Name Graphene Lumniscate comes from the combination of Luminescence (Light) and the term Lemniscate, which is the mathematical formula for that which we call an “Infinity” sign. Together we get an Infinite light.

While every new product would seem to be a new design or concept, not so with Lumniscate. That is because designer Robert Grost does not do things the way “Normal” people do. The entire process of designing and manufacturing cables begins where every project begins with Mr. Grost – with the design of the theoretically perfect device. Invariably, these designs cannot be produced and put into real world form. But…that is the point. Through this process radical manufacturing processes are developed over time that ultimately prove to be more valuable than a mere cable or consumer product would be. Graphene Lumniscate is not a radical departure from Graphene Extreme or Graphene Matrix. Graphene Lumniscate is a large step closer to our ideal conductor with entirely new concepts in material science and manufacturing techniques.

Not limited by cost constraints Cerious Technologies was able to break down barriers previously limiting the performance of both Extreme and Matrix. Indeed, one element of Lumniscate is the unique approach to Grounds, utilizing proprietary large crystal 6N (99.9999%) pure Silver ribbon conductors made for Cerious Technologies in Germany. Each foot was polished after extrusion and rolling into ribbon form to a mirror finish so that the equally proprietary aqueous Graphene and Ceramic solution

would not adhere to the Ribbons themselves (except to fill in surface voids at the atomic level), but would move to fill every void surrounding each ribbon. This Graphene and Ceramic solution not only fills in the gaps to form one coherent conductor, but also acts as an efficient Damper. Graphene, after all, is individual *atoms* of Carbon. Lumniscate has raised the bar, achieving damping at the ***Atomic level***. The silent backgrounds that Matrix is so well known for have been surpassed by a surprising margin in Lumniscate. They are now scary…

How is this done? Cerious has developed a proprietary method of forcing the aqueous Graphene into the smallest nook by injecting it under pressure. After each conductor or "Damping Jacket" (both employ the same Aqueous Graphene) is "filled" the entire cable is placed in a vacuum chamber sucking out every pocket of oxygen and pulling the Graphene into intimate contact with the pure Silver and Carbon Fiber backbone fusing it into one coherent conductor.

Through this process we have achieved an increase of over ***20% concentration of Graphene in each conductor versus Graphene Matrix***. The introduction of our aqueous Graphene solution in our damping jackets has resulted in ***damping at the atomic level*** for both our individual conductors and cables as a whole.

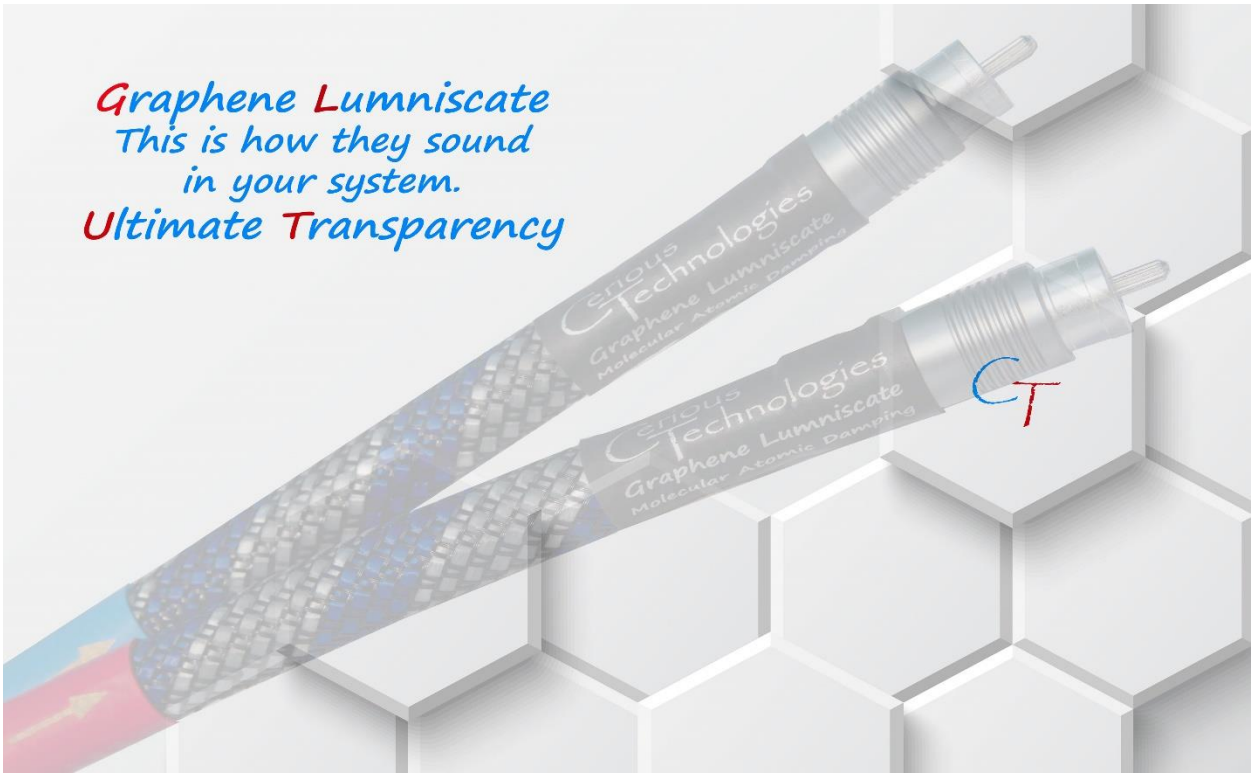
Matrix was a large step up from Extreme, especially with regard to low level signal devices, namely interconnect and digital cables. Due to their smaller scale more elements of our ideal design were able

to be instituted. In Lumniscate we have functionally turned our Loudspeaker Cables and Power Cords into large signal “interconnects” utilizing the same 6N 99.9999% pure Silver as the backbone of all Graphene Lumniscate products. Every inch is custom made and configured even before each individual conductor is hand made out of this pure Silver, Carbon Fiber (made by Toray, the finest available), Graphene and Liquid Ceramic which acts as the agent for our aqueous Graphene. Each conductor is housed in a medical grade Teflon tube, and then hand wound into a specific configuration within the outside jacket. Our aqueous Graphene solution is then flowed into our outer tube to surround the individual conductors and “lock” them into place. This process does require some time for the Graphene to move into place. For this reason, users should avoid moving Lumniscate once connected within a system, as this damping will improve over several weeks yielding quieter backgrounds over time.

Here we must address “the sins of the past”, as many have had bad experiences with pure Silver cables being bright and “overly detailed”. As a material physicist, individual materials are not defined by a single characteristic. When you say “a carbon fiber composite” everyone thinks of something rigid and prone to explosive failure characteristics. If knowledgeable carbon fiber structures can be made that are flexible, especially when combined with other materials. The same can be stated for Silver and the Carbon Fiber we employ within our conductors.

Carbon Fiber, as an individual conductor, can be “tube like” in its presentation and is a perfect complement to high purity Silver. The use of aqueous Graphene is an integral part of successfully combining 48,000 strands of Carbon Fiber (even more in our power cords and speaker cables which utilize 128,000 strands of Carbon Fiber…) and Silver into one integrated and coherent conductor.

The result is a cable that simply “disappears”. Graphene Lumniscate sets new standards for transparency and neutrality, which are hallmarks of all Cerious Technologies products…



Each 2-pound spool of Silver cost over $3800 each. We had to order 17 spools to get discounts, otherwise they would have been $6000 each…

Graphene Lumniscate Interconnects

The hallmark of Cerious Technologies interconnect designs is conductor sizes never before seen in interconnects. The ground conductors employ a combination of 12 gauge stranded Silver and multiple Mirror Surface Silver ribbons brought into intimate contact through silver compression collars on each end of the conductor resulting in a combined 9 gauge! The actual wire is pulled under pressure into a flexible 10 gauge Teflon tube forcing the multiple conductors into intimate contact.

Each positive conductor employs a solid 18 gauge 99.9999% pure Silver conductor hand polished to a mirror finish, 48,000 strands of Toray Carbon Fiber treated with a surface agent that roughs up the individual strands creating jagged areas for the Graphene to “fill”, a lattice weave of 38 gauge (extremely fine…) silver wire and aqueous Graphene. This lattice weave creates voids that are readily occupied by the aqueous Graphene. Together these form a conductor equivelant to an 8 gauge conductor.

More importantly each conductor behaves as a single solid core conductor, but with a greater conductivity in the center of the conductor than on the outside of the conductor. This characteristic creates a conductor that inherently fights any surface effects and focuses signal transmission in a single plane through the center lowering the total time constant and virtually eliminating any time smear from the signal traveling across the cross section of the conductor. It is inherently non-magnetic and extermely inefficient at generating electric fields minimizing back EMF and “Ghost” signals that are created as the EMF collapses back into the cable.

All Cerious Technologies cables employ Carbon Fiber shields as we have found that Carbon Fiber has lower total voids eliminating noise components while not interacting with the main signal conductors. Simply…metal-based shields just sound bad and restrict dynamic range and add congestion to the signal. Graphene Lumniscate is too transparent for a metal shield.

Graphene Lumniscate Power Cords

Graphene Lumniscate Power cords are like Graphene Lumniscate interconnects on steroids. Each conductor is virtually identical only **BIGGER**. The ground (neutral) conductor employs the same 12-gauge Silver conductor, but the Mirror Surface Silver ribbons are woven into a Lattice that surrounds the 12-gauge central conductor with silver compression collars on each end.

The positive conductor employs a 10-gauge Silver conductor, 128,000 strands of surface treated Toray Carbon Fiber, a Silver Lattice out of 30-gauge Silver (yielding over 3 times the total conductor of our interconnects) and our aqueous Graphene filled under pressure and placed in a vacuum for three days compressing into every void.

As with the interconnects each conductor behaves as a single solid core conductor, but with a greater conductivity in the center of the conductor than on the outside of the conductor. This characteristic creates a conductor that inherently fights any surface effects and focuses signal transmission in a single plane through the center lowering the total time constant and virtually eliminating any time smear from the signal traveling across the cross section of the conductor. It is inherently non-magnetic and extermely inefficient at generating electric fields minimizing back EMF and "Ghost" signals that are created as the EMF collapses back into the cable.This is especially important the greater the amplitude the conductor is passing (higher current) found in Power Cords.

The three conductors are then placed in a larger jacket and tube and are surrounded (again...) with a proprietary damping material creating what may be the quietest power cord ever created.

Graphene Lumniscate Loudspeaker Cables

Photo Coming Soon…

Another Cerious Technologies hallmark is individually jacketed conductors when it comes to loudspeaker cables. Graphene Lumniscate continues that tradition. They, like Graphene Matrix, are also relatively heavy. We are offering (as a special order) a specific version for minimonitors that are dramatically lighter utilizing damping materials that weigh only 40% of what a "standard" set would weigh. Please contact us for further information.

Grounds…Negatives…

The negative conductors begin with the only copper-based material in the Graphene Lumniscate line. The use of copper was necessary due to the fact it is 6-gauge in size and heavily Silver plated. Wrapped over the top of this is a Lattice of our Mirror Surface Silver ribbons. The damping materials added to the large outer jacket are radical and are one reason the cables weigh as much as they do.

Aqueous Graphene is too expensive to add as the sole damping material so we have developed a specific aqueous solution comprised of ceramic micro spheres, Carbon Nano particles, Copper beads, and a proprietary liquid agent. Each conductor then spends three days in a vacuum to eliminate air voids. It is important to let the cables "settle" each time they are moved to let the damping jacket stabilize the conductors for best sound.

Try to Stay Positive…

The positive conductors for the Graphene Lumniscate loudspeaker cables are the same as those for the "Hot" conductor of our Power Cords. The damping solution, however, differs from that of the negative loudspeaker cable conductor with the addition of Graphene along with the Carbon Fiber Nano particles. The damping material now becomes conductive with the addition of Graphene creating a conductor ¾" in diameter! Much experimentation was done to get just the right viscosity allowing it to flow to dampen internal vibrations, but to make sure it was too thick to ever escape the jacket should the seals ever get compromised. Cerious Technologies experience in reactive ballistic armor led to a damping material that occupies a sold state and only liquifies when under the influence of vibration. Under these conditions only the material in direct contact with the conductor would return to a liquid state, while the rest of the damping mass would stay in a stable solid state.

Terminations…Tough Love…

We HIGHLY recommend spades as a termination. In fact, we will come right out and say if you choose bananas, it will compromise the sound of the Graphene Lumniscate loudspeaker cables. Yes, they are THAT revealing. We have searched everywhere for "invisible" bananas but have grown to believe they do not exist. We CAN do bananas but PLEASE do spades. Our spades are made of Oxygen Free Copper and are direct Gold plated for best sound.

Oh my…this was long. Even now this only scratches the surface of all that is Graphene Lumniscate. Please feel free to contact Cerious Technologies with any more questions. We are here to serve you. Thank you so much for your interest and if you are a customer, thank you even more for trusting us with your system.

Sincerely,

Robert L. Grost