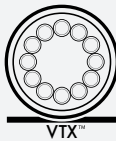




**SHUNYATA RESEARCH**  
SIGNAL CABLES

## A CONVERGENCE OF SCIENCE AND ART

Sigma Series cables showcase technological innovation and design execution that simply does not exist elsewhere — at any price. Sigma Series cables combine meaningful parts innovations with objective measurement and an artisan's eye for construction quality. Unlike many cost-no-object cable products that have little in the way of discernible science, Sigma Series products incorporate an array of definable technologies that sets the standard for quality and performance in the cable industry .





$\Sigma$   
SIGMA

## SIGMA SPEAKER

Shunyata Research's Sigma Series is quite simply our highest performing speaker cable. Exclusive HARP technology reduces current resonances with the cable. KPIP™ eliminates burn-in issues.



OFE 101



VTX™



KPIP™



ArNi™



STIS™



Sonic Welding



HARP

WIRE

OFE 6 gauge, VTX™

TERMINATION

Standard: copper or copper/gold terminals. *Optional: STIS™ interchangeable.*



## SIGMA XLR

Sigma interconnects feature Shunyata Research's exclusive patented-pending TAP Polarizer technology. TAP reduces electromagnetic polarization distortion. ETRON® technology, Ohno Continuous Cast Copper, VTX™ (hollow core) conductors and expensive fluorocarbon dielectrics make for a true reference quality interconnect.



OFE 101



Ohno



VTX™



KPIP™



ArNi™



ETRON®



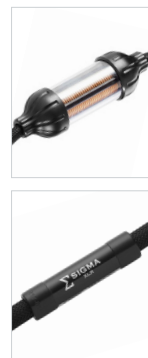
TAP Polarizer

WIRE

Ohno 16 gauge twisted pair, VTX™ geometry, FEP dielectric, braided shielding

TERMINATION

Shunyata XLR, tubular gold pins.





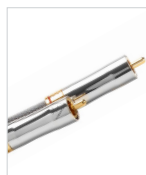
## SIGMA RCA

Sigma interconnects feature Shunyata Research's exclusive patented-pending TAP Polarizer technology. TAP reduces electromagnetic polarization distortion. ETRON® technology, Ohno Continuous Cast Copper, VTX™ (hollow core) conductors and expensive fluorocarbon dielectrics make for a true reference quality interconnect.



WIRE  
TERMINATION

Ohno 16 gauge coaxial, VTX™, Ohno, FEP dielectric, silver plated braided shield  
Shunyata RCA, gold pins.



## SIGMA PHONO

Sigma interconnects feature Shunyata Research's exclusive patented-pending TAP Polarizer technology. TAP reduces electromagnetic polarization distortion. ETRON® technology, Ohno Continuous Cast Copper, VTX™ (hollow core) conductors and expensive fluorocarbon dielectrics make for a true reference quality interconnect. Includes separate Sigma CGC grounding cable.



WIRE  
TERMINATION

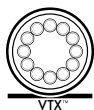
Ohno 16 gauge coaxial, VTX™, Ohno, FEP dielectric, silver plated braided shield  
Shunyata RCA, gold pins.



Shunyata Research uses only the highest purity of copper available for the production of its wire products. **OFE Alloy 101** or C10100 is the highest grade of copper with a minimum 99.99% purity and a conductivity rating of 101% IACS. OFE stands for oxygen-free electrolytic and supersedes the term OFHC (oxygen-free high conductivity). C10100 is the only grade of copper that comes with a written certification of purity. Certified by ASTM F68 C10100.



**Ohno** wire, also called PCOCC was invented in 1986 by professor Atsumi Ohno of the Chiba Institute of Technology in Japan. Copper wire is created by an extrusion process that pulls a rod of cold copper through a small orifice which creates multiple crystalline boundaries. By contrast, Ohno wire is made by a process using heated molds that cast a wire to form a single crystalline structure. Ohno wire is well known for its exceptionally pure, grain-free sonic qualities.



Shunyata Research's exclusive **VTX™** conductors are made in the shape of hollow tubes. Since current can only travel through the outer rim on the wire, there are no skin effects or random eddy currents. VTX™ conductors are made from pure OFE C10100 or Ohno (single crystal) copper.



**KPIP™** (Kinetic Phase Inversion Process) was developed by Caelin Gabriel after years of research into the underlying causes of various effects such as burn-in, wire directionality and the effects of cryogenic treatment. He discovered that there was an underlying core principle that burn-in and cryogenics only "partially" addressed. Once the governing principle was understood it became possible to create a processing technique and machine that could virtually eliminate the need for burn-in and cryogenic treatment.



**ArNi®** is a type of wire created by Shunyata Research designed to be the finest quality wire available for audio purposes. It begins with the highest purity of copper available – OFE C10100 or Ohno (single crystal). Then it is formed in virtual hollow tubes eliminating skin effects and eddy current distortions. In addition, the wire undergoes our proprietary KPIP™ process.



**ETRON®** is a technology developed by Shunyata Research that prevents dielectric absorption and re-radiation in signal transmission. It requires a special type of conductor that has two signal paths and an electric field compensation circuit that creates a cancellation signal that prevents the insulation from developing a charge. ETRON® cables preserve the integrity of the source signal even when using very long runs of cable. Patent US 8,912,436, Patent Ch ZL201180047344.2.



The **STIS™** speaker terminal system was designed to eliminate the high cost and complication of speaker cable termination. The system makes it possible to use the same speaker cable with a variety of different amps and speakers. If a spade is damaged, you can simply replace it without sending it to the factory for re-termination. STIS™ interchangeable terminals have undergone extensive user listening tests to insure that they provide the finest audio performance that is equal or superior to non-replaceable, soldered terminals.



Crimping, soldering, brazing and cold soldering are all inferior methods of joining two wires or terminals together. **Sonic welding** uses high energy sonic waves to literally join two metals together at a molecular level. There is no solder or intermediary metals involved in the process.



**TAP** (Transverse Axial Polarizer) is a device that interacts with the electromagnetic field generated by the signal traveling along the signal cable. TAP improves the sonic performance of the cable by modifying the behavior of the electromagnetic wave that surrounds the signal cable. In effect, the TAP blocks longitudinal-oriented waves while passing transverse-oriented waves. The effect in sonic terms is like using polarized sunglasses to reduce reflected sunlight. Correcting polarization micro-distortion reduces what some call sonic glare. ~ Patent Pending ~



**HARP** was discovered through Gabriel's research into 'current drift' and audio frequency current resonances that occur in speaker cables. Theoretically, a speaker cable may develop current resonances in the audio band, being roughly analogous to standing waves (modals) in room acoustics. The HARP module acts as a current mode diffraction device that breaks up these resonances, improving the perceived resolution and coherency of the system.



## **SHUNYATA RESEARCH**

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