

ALTAIRA GROUND NOISE REDUCTION SYSTEM

The ALTAIRA reduces chassis and signal ground related noise to a degree that will astonish even the most seasoned music enthusiast or recording engineer. Designer Caelin Gabriel created the ALTAIRA to be an integrated *state-of-the-art* solution for controlling ground-plane noise in home entertainment and pro-audio systems.

An ALTAIRA ground-plane noise reduction system strips away multiple layers of noise, unlocking obscured subtle details and dynamics. The sheer degree of improvement in resolution in both audio and video performance must be experienced first-hand to be fully appreciated.



SHUNYATA RESEARCH

shunyata.com



ALTAIRA CHASSIS GROUNDING HUB

TWO UNIQUE GROUND HUBS

There are two ALTAIRA models available. Both have six component terminal connections, each with their own zone of isolation. The Chassis Model is ideal for simple systems where only a single hub is necessary to address performance. In more complex systems, the Signal Model can be used to segregate and isolate certain types of components. For instance: grouping and isolating the digital components onto a dedicated Signal Hub would provide a higher level of performance.

When properly configured, the ALTAIRA system comprises a completely new class of audio products.

The ALTAIRA chassis and signal grounding hubs do more than just reduce noise. They reveal hidden musical detail and micro-dynamics, while improving dynamic scale, tonal accuracy and timbral definition with an expanded sense of spatial dimensionality. The bass foundation has added weight, grip, and articulation. Video content has improved image resolution, Dmax, and color saturation.



ALTAIRA SIGNAL GROUNDING HUB

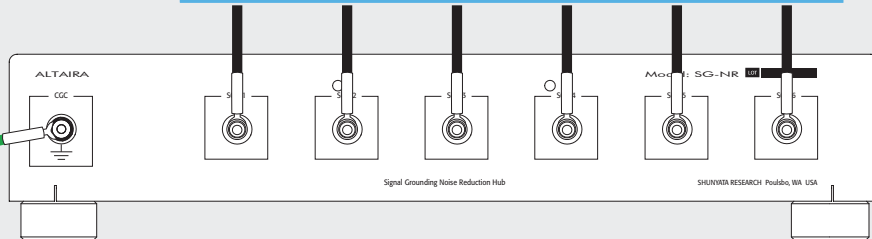
Think you've heard all your system has to offer?

TRY ALTAIRA AND EXPERIENCE PERFORMANCE WITHOUT LIMITS!



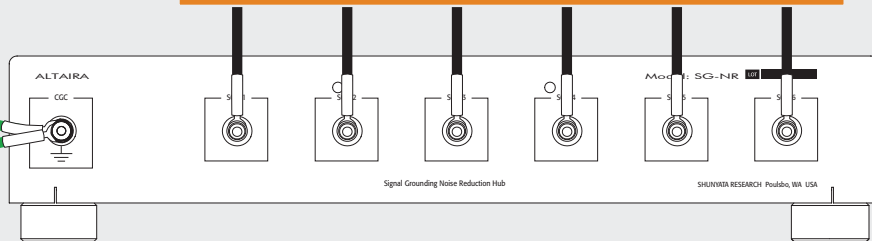
SEGMENTED GROUNDING SYSTEM

ANALOG COMPONENTS TURNTABLE // PHONO-STAGE // PREAMPLIFIER // DAC



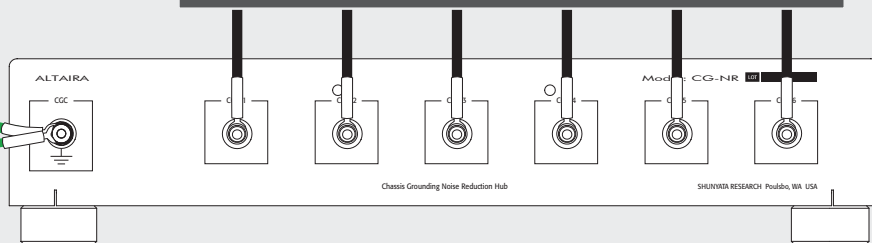
ADVANCED SEGMENTATION

DIGITAL COMPONENTS SERVER // CD PLAYER // CLOCK // UPSAMPLES

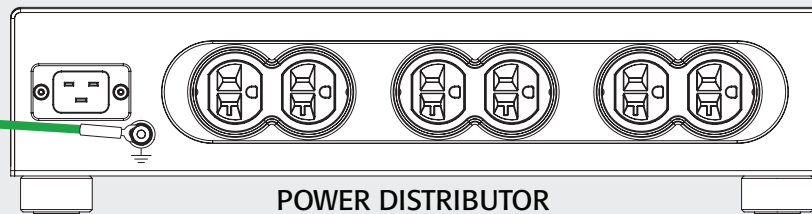


DIGITAL ISOLATION

AMPLIFICATION COMPONENTS AMPLIFIERS // ACTIVE SUBWOOFERS



BASIC INTEGRATION



POWER DISTRIBUTOR

SPECIFICATIONS

ALTAIRA CG-NR

Power Requirements	None
Number of Ports	Six (6) ports
Isolation Zones	Six (6) zones
Noise Reduction	6-12 dB @ 3 kHz — 30 MHz
Vibration Control	Isolation polymer footer
Construction	Aluminum and steel chassis Machined aluminum faceplate

ALTAIRA SG-NR

Power Requirements	None
Number of Ports	Six (6) ports
Isolation Zones	Six (6) zones
Noise Reduction	6-12 dB @ 3 kHz — 30 MHz
Earth Ground Isolation	>6db @ 50kHz-30MHz
Vibration Control	Isolation polymer footer
Construction	Aluminum and steel chassis Machined aluminum faceplate

Dimensions	Width: 14.1 inches (35.814 cm) Height: 3.4 inches, chassis with feet (8.636 cm) Total Depth: 6.9 inches (17.526 cm), faceplate to end of ground terminals Depth: 5.6 inches (14.224 cm), faceplate to back of chassis
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GROUNDING CABLES

CGC/SGC Base Cable

Venom, Delta, Alpha, Sigma, Omega
Available Terminations: STIS™ v3 interchangeable,
Banana & Spade

Ground Cable Tails

VTX™ and VTX-Ag™
Available Terminations: RCA, S/PDIF, XLR-F, XLR-M, USB-A,
USB-B, BNC, Spade, Banana, Ethernet



NO HUM — NO BUZZ — NO HEAT



The ALTAIRA uses **NIC™ (Noise Isolation Chamber) technology**. NICs™ use a non-reactive ferroelectric substance that actually absorbs high-frequency noise. This reduces ground-plane noise without any of the negatives associated with conventional filters, capacitors and transformers.

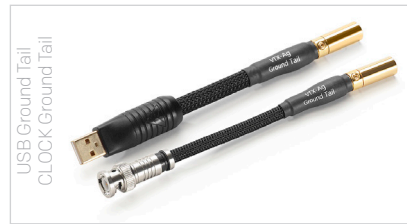
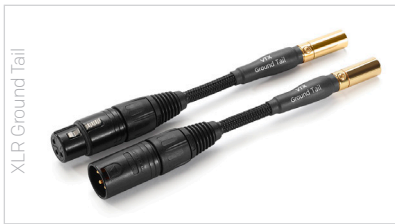
— Patent Number: US 8,658,892 —

GROUND CABLE SYSTEMS

WHY GROUND CABLE DESIGN MATTERS

Shunyata Research's recent advances in conductor science have revolutionized the design and performance of its CGC/SGC ground cable lineup. Every conductor, terminal, connector and dielectric materials has been refined to provide superior conductivity and optimal connectivity. Whether you choose the most affordable Venom model or the reference level Omega, CGC/SGC ground cables deliver an ultra-low impedance interface between the ALTAIRA ground hub and the system components.

Establishing the lowest impedance ground-path is critical to ground system performance. Using inferior commodity ground cables may limit the performance capabilities of the ALTAIRA. Even the most affordable Venom CGC/SGC ground cables offer performance benefits that go far beyond the capabilities of common ground cables. Shunyata Research's CGC/SGC cables feature proprietary hollow-core VTX™ conductors in the Venom and Delta models while the Alpha, Sigma and Omega models sport silver-core VTX-Ag™ conductors. Superior terminals and connectors expand the performance envelope while Shunyata Research's exclusive KPIP™ (*Kinetic Phase Inversion Process*) accelerates the cable burn-in process while elevating performance to even higher levels.



Shunyata Research's exquisite craftsmanship and interchangeable terminals deliver the
ULTIMATE IN GROUNDING SYSTEM PERFORMANCE & FLEXIBILITY

GROUND CABLE CHOICE AND PERFORMANCE

With five models available, the ideal balance of price and performance can be achieved. Venom and Delta CGC/SGC ground cables are the most affordable options, allowing the ALTAIRA grounding system to demonstrate its incredible performance in even the most modest of entertainment systems. The Venom can be used for component-to-ALTAIRA connections while the Delta's larger gauge makes it an exceptional choice for the power distributor/ALTAIRA connection or for interconnecting multiple ground hubs.

Alpha and Sigma CGC/SGC cables raise the performance bar with their superior VTX-Ag™ conductors. They are suited to more upscale systems and to the larger and more complex entertainment systems.

Omega CGC/SGC cables represent the pinnacle in ground cable performance. They feature Shunyata Research's patented hybrid TAP/CMODE module that reduces common-mode noise and eliminates polarization distortion. Omega's capabilities have been described as shockingly dramatic; with impressive improvements in low-level resolution and

apparent reductions in noise levels that must be experienced to be believed.

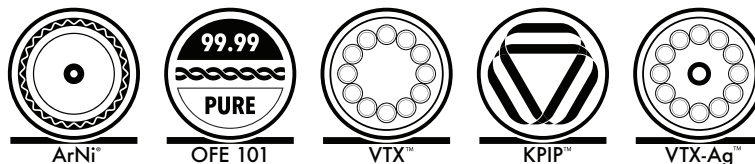
For most systems requiring shorter lengths of cables, the Venom and Delta models are sufficient to demonstrate the ALTAIRA's abilities. If there are longer length cables needed for connections between ALTAIRA hubs or between the ALTAIRA hub and the power distributor the Delta, Alpha, or Sigma models are recommended as budget allows. In summary, for shorter connections, the less expensive models will do the job, but for longer lengths the larger gauge models will deliver notable system improvements.



INTERNAL MATERIAL DESIGN FEATURES

The Venom and Delta ground cables utilize Shunyata's proprietary ArNi® wire, produced with the highest purity of OFE C10100 and Ohno (single crystal) copper. Then it is formed in virtual hollow tubes (VTX™) eliminating skin effects and eddy current distortions. In addition, the wire undergoes our proprietary KPIP™ process which improves performance and reduces burn-in time.

The Alpha, Sigma and Omega ground cables use Shunyata's VTX-Ag™ conductors that have an outer tube of pure copper that surrounds an inner core of the purest form of silver. The inner silver core improves the impression of transient speed and macro-dynamics while creating an incredible three-dimensional weight and timing in the lower octaves.



SPECIFICATIONS

GROUND CABLES



VENOM

Conductors	12 gauge VTX™
Dielectric	Fluorocarbon
Connectors	STIS™ v3
KPIP™ Processing	4-days
Standard Length	1.00 meters



DELTA

Conductors	10 gauge VTX™
Dielectric	Fluorocarbon
Connectors	STIS™ v3
KPIP™ Processing	4-days
Standard Length	1.00 meters



ALPHA

Conductors	8 gauge VTX-Ag™
Dielectric	Fluorocarbon
Connectors	STIS™ v3
KPIP™ Processing	4-days
Standard Length	1.00 meters



SIGMA

Conductors	8 gauge VTX-Ag™
Dielectric	Fluorocarbon
Connectors	STIS™ v3
KPIP™ Processing	4-days
Standard Length	1.00 meters



SHUNYATA RESEARCH'S GROUND CABLE FEATURES

ArNi® Proprietary Conductors

OFE Alloy 101 Pure Copper
Conductors

VTX™ or VTX-Ag™ Geometry
(hollow tubes)

Proprietary KPIP™ process

STIS™ v3 Interchangeable
Terminations



With
C-Mode
Noise
Filter

OMEGA

Conductors	6 gauge VTX-Ag™
Dielectric	Fluorocarbon
Connectors	STIS™ v3
KPIP™ Processing	4-days
Standard Length	1.00 meters

STIS™ v3 INTERCHANGEABLE TERMINATIONS

Shunyata Research's STIS™ v3 terminals are interchangeable with simple tools. No soldering or returns to the factory are necessary when a different type of connection is required. The terminals are made with a pure copper base metal and gold plated to protect the copper from corrosion. There is a banana terminal and two sizes of spades available in a small 4-6mm combo-spade and a larger 6-8mm combo spade.

All Shunyata ground cables are hand-terminated by craftsman that have perfected the art of cold soldering.



GROUND CABLE TAILS

The most innovative and revolutionary feature designed into Shunyata Research's ground cables are the innovative *Ground Tail Adapters*. Tail adapters are short cables that are designed to plug into the standard base cable using the STIS™ v3 terminal system. They facilitate the ability to tap into the grounds of many common signal connectors. Tails eliminate the need to make custom cables that become

obsolete when the entertainment system changes. Tails can be used on any of the CGC/SGC base cables from Venom model through to the Omega model.

Available tail adapters include: RCA, XLR-F, XLR-M, USB-A, USB-B, S/PDIF, BNC, and Ethernet.



LIMITED LIFETIME WARRANTY

The unparalleled craftsmanship and build quality of Shunyata Research products is backed by a limited lifetime warranty. This demonstrates our commitment to building the finest products on the planet and providing exceptional customer support.

— VALID ONLY IN THE US AND CANADA —

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