



Experienced audiophiles have long recognized the importance of cables in an audio system; they are second to none of the hardware. The high prices of some high-end cables have already shown their status in the system. Where there is demand, there is supply, and there is quite a lot of supply. To build up fame among cable suppliers and to get recognitions from the audiophiles, a cable brand name must be outstanding in design, production, appearance and actual sound effect. And Nordost from Boston, USA, has set a good example.

HIGH REPUTATION

Nordost has a long history in cable making. In 1991, it began making cables for the aerospace (NASA Space Shuttle project) and medical (micro-surgery) industries. Such cables require very high accuracy and stability in conduction. With the technology developed, Nordost has built a strong foundation for its later audio cable design. In 1992, Nordost launched its first audio cable----the Flatline Gold Speaker Cable. From then onwards, single core pure copper, extruded FEP (Fluorinated Ethene Propylene) dielectric and jacketing, and flat cables have become distinguished features of Nordost. In 1997. Nordost produced its first high end cable, the SPM (short for Speed, Precision and Musicality). With its brilliant effect, it was highly praised by audio magazines, and built up a reputation among audiophiles. In 2001, with 75 micron silver coated on 7N oxygen-free copper core, single FEP thread isolation and FEP insulating jacket, Nordost introduced the Valhalla series cables, bringing itself to a still higher level. Today, Nordost's top of the line Cable is Odin.

CONSTRUCTION OF ODIN

The Odin series include power, single-ended and balanced interconnect, phone, coaxial and balanced digital, and speaker cables. Nordost strongly recommends using the whole series in a system, to get the most from the design concept and the best sound performance. So we changed all the cables of our system to Odin in this test.

We have to understand the design and construction of Odin first before the test. Basically, all Odin cores are made of a solid core of 7N OFC (oxygen-free copper), with 85micron silver coating; different models have different strands and AWG.

Next is the Dual Micro Mono-Filament isolation

design. The best electrical dielectric besides vacuum is air, followed by FEP, Nordost claims. Nordost says FEP is durable, has very good flexibility, strong resistance against chemical reaction and extreme temperatures. It first introduced the FEP Micro Mono-Filament thread in the Valhalla series which employed a single FEP thread wound helically round the OFC core. And then the combination is covered by an extruded FEP sleeve. Therefore, the dielectric surrounding the conductor is 80% air. This design can have the advantage of using air as dielectric and at the same time, keep the cable soft and flexible. In Odin, this technology goes

a step forward, instead of one FEP thread, there are two threads twisted together wound over the copper core before putting on the extruded FEP jacket. This is the Dual Micro Mono-Filament design which increases the air to 85%. Nordost says just the Micro Mono-Filament can attain the Propagation Delay to 90% or above the velocity of light



(no other brand will disclose the propagation delay figures). In terms of music reproduction, this means more details and better dynamics, transient, bandwidth and phase coherence; and music will become more natural and life-like.

Although Dual Micro Mono-Filament is much more difficult to manufacture, and the increase



of air looks not significant, yet the Propagation Delay is raised obviously, and so is the sound performance.



100% SHIFLDING

Last but not least is the TSC (Total Signal Control) shielding technique. Except the Odin speaker cable which is traditionally flat, all the rest 6 cables adopt the common cylindrical tube shape, but with the latest TSC technology ---- by weaving a 100% coverage shielding over each Dual Mono-Filament OFC core. The shielding is made by thin, flat silver-coated OFC copper stripes. The TSC effectively isolate all RFI and EMI interferences. When you look into the transparent extruded TSC sleeve, you will realize how precise and flawless this TSC shielding is; and you will understand such a perfect TSC shielding can only be manufactured by a high standard factory with the most advanced cable making skill.

SPECIFICATIONS OF ODIN

As I have mentioned above, all Odin cables cores are made with 7N OFC with 85 micron silver coating, and are treated with Dual Micro Mono-Filament shielding. The conductors in speaker cables are laid flat and wrapped with 1.003 high purity grade FEP jackets. The rest 6 models are first covered with FEP insulation, then a TSC shielding, and finally a 1.003 grade extruded FEP jacket. Below is the individual specification of the Odin series:

SPEAKER CABLE

Conductors: 24 strands 20 AWG (12 +, 12 -),

Capacitance: 9.2 pF/ft, Inductance : $0.15 \mu H/ft$

Propagation Delay: 98% of light velocity

Connectors: Nordost triple rhodium-plated, beryllium copper Z plugs; or Furutech triple

rhodium-plated spades.

ANALOGUE INTERCONNECTS

Conductors: 8 strands 23 AWG (4 +, 4 -)

Capacitance: 19 pF/ft, Inductance: 0.07 µH/ft

Propagation Delay: 90% of light velocity

Connectors: Furutech rhodium-plated XLR (balanced), or WBT Next Gen silver RCA

(unbalanced).

TONEARM CABLE

Conductors: 4 strands 23 AWG (2 +, 2 -)

Capacitance: 19 pF/ft, Inductance: $0.07 \mu H/ft$

Propagation Delay: 90% of light velocity

Connectors: Furutech rhodium-plated DIN or

XRL; or WBT Next Gen silver RCA.

75Ω COAXIAL DIGITAL CABLE

Conductors: single strand 16 AWG

Capacitance: 15.3 pF/ft,

Propagation Delay: 89% of light velocity Connectors: Furutech rhodium-plated BNC.





110 Ω AES/EBU DIGITAL CABLE

Conductors: 2 strands 16 AWG (1 +, 1 -)

Capacitance: 10.5 pF/ft,

Propagation Delay : 89% of light velocity **Connectors :** Furutech rhodium-plated XLR.

POWER CABLE

Conductors: 7 strands 16 AWG (3 Line, 3

Neutral, 1 Ground)

Capacitance: 19 pF/ft,

Propagation Delay: 86% of light velocity

Maximum Current: 60 A

Connectors: Furutech rhodium-plated power

plug.

RUNNING-IN

Because there were quite a lot of top gears in our audition room: the dCS Vivaldi digital Playback system (including SACD/CD transport, Digital Upsampler, Master Clock and DAC), Dr. Feikert Firebird turntable with SME V-12 tonearm, Ortofon MC Anna cartridge, Audio Note AN-S8 pure silver step-up transformer, Ortofon EQA-999 phono amplifier, Boulder 2010 Preamplifier with separate Power Supply, Dan D'Agostino Momentum Mono Block Power Amplifier, Dynaudio Evidence Platinum Speakers, Shunyata Research Power Conditioner Triton + Typhon, so we really needed quite many Odin cables. These included 1 pair of speaker cables, 1 pair of RCA interconnects,







3 pairs of balanced interconnects, 1 tonearm cable, 5 AES/EBU digital cables, 3 coaxial digital cables (for clock signals) and 8 power cables.

Nordost is professional and serious. They know well the importance of running-in their cables, so they have them run-in with a machine, the Vidar, for 5 cycles (24 hours/cycle) before they leave the factory for the market. When we received our set of Odin, we let them further run-in with our Audiodharma Cable Cooker for another 48 hours, and the whole set of Odin were then fully run-in and ready for audition.

HIGHEST STATE

During the two months (some of the gear in the audition room had changed, naturally) Odin was with us, my listening experience could be described as "pleasant". It was because their sound performance was really superb, and they were able to bring out the best from the gears. Nordost has a unique knowledge on cable design, and well deserves its high reputation in the market. I was most impressed by their balance, their extension on the high and low ends, without emphasizing any frequency band. The sound was especially transparent, easy and natural. The most important thing was, no matter in high or low frequencies, they could make excellent



reproduction for what there was; but they wouldn't add anything for what there was not. For example, in Oscar Peterson Trio's "You Look Good to Me", the brush and the triangle of Ed Thigpen were brisk, bright and metallic, with very refined images. Ray Brown's bowing and plucking on the Double Bass made completely different vibrations on the strings, producing different deep bass amplitudes and body resonances; but both were rich and full, both very clearly showed the fading away of sounds, not a trace of ambiguity. Together with Oscar Peterson's sonorous and refreshing piano, the three created a most vivid swinging feeling of Jazz music. The truth to life bodies of the instruments and the presence of the recording studio reached a highest possible

People who had visited our audition room must be impressed by its quietness. The shielding of Odin was a 100% coverage, the background was absolutely noiseless, the music details came out clearly, and that made the music more captivating. When listening to some of the songs in the K2HD mastering "Snow Wolf Lake", the life-like music, the air of the studio, Jackie Cheung's singing, details of his breath, Kit Chan's passions, the vibrations of the guitar strings, the fingerings, the mellow sound of the cello, the grandeurs of the orchestra...... We were so surprised to find we had missed so many details before!



A FINAL WORD

When replaying passages of big dynamics such as the choruses and organ in "Cantate Domino", or bursts of vigorous drumming in "Flying Dragons and Leaping Tigers" and "Bull and Tiger Fight", or the exhilarating and ground-shaking

passages in "Pictures at an Exhibition" and "Carmina Burana", Odin were always capable of presenting a sound stage full of details and good structure ---- on the condition that the gears had the potential.

Yes, Odin is expensive. But the high standard of production and the super signal transmission ability make it worth every dollar you paid. If you want to have a taste on the power of Odin, I would suggest you to begin with the power cord! 音