



ESOTERIC

GRANDIOSO N1 Network Streamer / DAC

255810



The Grandioso N1 is a Network Streamer / DAC designed to deliver the finest high-quality streaming audio. It incorporates the newly developed Master Sound Discrete DAC G2 converter circuit and the Esoteric Network Engine G4, originally developed for the flagship Grandioso N1T.

PRODUKTDATEN

Equipped with 4th Generation Esoteric Network Engine G4

The Grandioso N1 is equipped with the 4th generation Esoteric Network Engine G4, a top-of-the-line engine with the processing power worthy of a flagship network streamer / DAC. The G4 engine features large-capacity RAM, a powerful CPU, and an SFP port for optical network connections.

The Esoteric Network Engine G4 is a concentrated embodiment of the design philosophy unique to high-end products. It boasts a dedicated linear power supply that is completely independent of the audio power supply, ensuring signal purity. Each component of the engine is independently powered through separate transformer windings. Moving beyond conventional switching power supplies, Esoteric incorporates premium components such as a large toroidal transformer, custom capacitors, Schottky barrier diodes, and other oversized parts. This meticulous engineering results in a sound that is smooth, vinyl-like, and richly detailed.

SFP Port

The Esoteric Network Engine G4 is equipped with a built-in network switch function and has two network interfaces: an Ethernet RJ45 connector and an SFP port.

By connecting the Grandioso N1 to an external network switch using an SFP module and fiber optic cable, you can isolate the signal from network noise, achieving unparalleled purity in playback. Alternatively, a metal cable connection using a Direct Attach Cable (DAC) can simplify the network signal path by reducing the number of circuits involved. For maximum flexibility, both the RJ45 and SFP ports can be used simultaneously, tailoring the setup to your preferences and requirements.

Music Server Function

The Grandioso N1 is equipped with USB ports (USB-A x1, USB-C x1) and can function as a music server/NAS by connecting up to two USB storage devices, such as flash drives or HDD/SSD units.

Extensive Noise Isolation

The connection between the network engine and the digital audio circuit is routed through isolator circuits that effectively eliminate potential network-generated noise. Thanks to this design, the

Grandioso N1 delivers clear, beautifully immersive sound, befitting its status as a flagship Network Streamer / DAC.

Master Sound Discrete DAC G2

Esoteric Master Sound Discrete DAC G2 is a fully in-house-designed, FPGA-based, multi-level (delta-sigma) D/A converter built with meticulously selected discrete components. The ultimate goal of this unique architecture is to effortlessly reproduce the true dynamics and power of music, far surpassing the limitations of conventional DAC IC chips. Its large-scale circuit design comprises 32 elements per channel and features completely independent key components, including clock drivers, logic circuits, capacitors, and resistors. Breathtakingly powerful, dynamic, and musical, this architecture delivers the ultimate pure listening experience, without compromise.

Advanced Digital Processing

Esoteric Master Sound Discrete DAC G2 supports the latest high-resolution digital formats, including 22.5 MHz DSD and 768 kHz PCM signals. To achieve D/A conversion that fully matches the unique characteristics of both DSD and PCM, dedicated FPGA* digital processing algorithms have been independently developed for each format. This ensures the finest sonic performance from any type of digital source.

*FPGA: Field-Programmable Gate Array

Evolution to G2 (Generation 2)

The second-generation Master Sound Discrete DAC G2 is the result of our commitment to achieving new heights in sound quality.

High-Power / Low-Noise, Newly Designed Flip-Flop Circuit

In the upstream digital domain (the circuit that converts digital signals from the CPU into analog current signals by passing them through resistor elements), the Flip-Flop IC controlling the on/off state of these resistor elements has been redesigned for optimized performance. The addition of capacitors near the IC further improves current supply speed and reduces noise.

Even Purer Separate Power Supply Lines A new approach was adopted that involved separating the power supply lines for the FPGA and the other digital domain circuits, as well as the hot and cold power supplies for the analog domains. Each section is powered by its own power regulator. Reconstructing the power lines further improved sound purity.

Dual Buffer Circuit Equivalent to the Grandioso D1X SE

The analog output buffer amplifier, **Esoteric-HCLD (High Current Line Driver)**, boasts an astonishing high-speed slew rate of 2,000 V/s. The number of HCLD components has been doubled, implementing the same dual-buffer configuration (four circuits per channel) as used in the Grandioso D1X SE. This design further strengthens current output, delivering ultra-fast attack and enhanced dynamics.

Extensive Use of Ultra-High-Quality Components - Ultra-High-Precision MELF Resistors / IDM-01 Amplifier Elements

The DAC circuit's core resistor elements employ industrial-grade, ultra-high-precision MELF resistors to maximize processing accuracy. In addition, the analog filter section incorporates Esoteric's proprietary IDM-01 amplification element. The IDM-01, meticulously designed by Esoteric engineers, was developed through rigorous evaluation of materials, circuit patterns, and layout – much like a discrete amplifier. It amplifies music both dynamically and delicately. By integrating the IDM-01 with other carefully selected discrete components, the N1 achieves sound quality marked by vivid live presence, superb dynamics, and an organic, natural texture.

Advanced Quality Control

In a discrete DAC, where component tolerances are directly linked to processing precision, highly advanced quality control is essential in the manufacture of electronic circuit boards. Esoteric's in-house factory employs some of the world's most advanced board-mounting technologies, including soldering performed in an oxygen-free furnace located within a clean room maintained at hospital operating-room

levels of cleanliness. The technologies cultivated through the production of circuit boards for the audio, medical, aerospace, and defense industries ensure the exceptional manufacturing quality of the Master Sound Discrete DAC G2.

ES-Link Analog – Esoteric's Proprietary Current Transmission

In addition to line connections (XLR, RCA), ES-Link Analog, Esoteric's proprietary current transmission system, is employed for connection to an amplifier. ES-Link Analog is the ideal method for audio signal transmission. Compared to the conventional voltage transmission, it transmits approximately 100 times more current, sending the full energy of the music to the amplifier. Also, it is not affected by the impedance of the interconnects running between the source and amplifier, so it maintains a perfect integrity between the output signal of the source and the input signal to the amplifier.

Robust Power Supply Circuit

The Grandioso N1's robust power supply design is central to its powerful, three-dimensional sound and lifelike sound. Following the design philosophy of the flagship Grandioso series, this stereo unit features a true dual-mono configuration with independent power transformers for the left and right DACs.

In total, the system incorporates five transformers: one each for the left and right DACs, one for the network engine, one for the digital circuitry, and one for the microcontroller circuitry. Driving each section with a dedicated linear power supply produces a smooth, realistic sound reminiscent of vinyl playback. Each power supply section employs a Low-Feedback DC Regulator with a discrete configuration that eliminates the use of integrated circuits. By minimizing feedback, the N1 achieves a powerful, open, and natural sound.

Grandioso PS1: The Ultimate Power Supply Companion

Specially designed as a high-performance external power supply for the Grandioso N1/K1X SE's analog circuits (D/A converter module), the Grandioso PS1 is equipped with four powerful independent power transformers. In the standard Grandioso N1, the analog front (D/A section) and rear (buffer amplifier section) circuits are each driven by a single transformer per channel. When the PS1 is connected, however, the D/A section and buffer amplifier section are separated, with two transformers per channel – an enhanced high-performance design.

This separation provides clearer distinction between analog and digital signals, effectively eliminating mutual interference. The doubled power supply circuitry also ensures an ample supply of DC power, resulting in richer tonal quality and a noticeable improvement in signal-to-noise ratio.

Master Sound Discrete Clock for Digital Player

It is no exaggeration to say that the clock circuitry is the biggest key to high sound quality in digital music reproduction. For its flagship master clock generator Grandioso G1X, Esoteric has perfected its own in-house manufactured OCXO clock module, the Master Sound Discrete Clock. The Master Sound Discrete Clock for Digital Player used in the Grandioso N1 applies the basic design concept of G1X's in-house manufactured OCXO module to the internal clock of the digital player models. The unique circuit design using carefully selected discrete components, such as a large crystal oscillator, achieves high sound quality that reflects Esoteric's philosophy in every detail, which cannot be achieved with an off-the-shelf clock module.

Grandioso G1X: External Master Clock Generator Connectivity

The Grandioso N1 can be connected to the Grandioso G1X external master clock generator, enhancing sound quality by synchronizing its internal circuitry to an even more precise 10MHz reference clock.

Connectivity to Various Digital Devices

In addition to coaxial and optical inputs, the Grandioso N1 features an asynchronous USB-B port supporting DSD 22.5MHz and PCM 384kHz/32-bit resolution. All digital inputs to the DACs are routed through isolator circuits to eliminate noise interference. The Grandioso N1 also includes a digital filter switching function (ES-Link5 input: Rdot/off; other inputs: Fir/Rdot/off) and a PCM-to-DSD conversion function. These features allow users to customize sound quality according to their preferences.

Grandioso P1X SE: Super Audio CD Transport Connectivity

The Grandioso N1 supports Esoteric's proprietary ES-Link 5 ultra-wideband digital transmission standard and can connect to Esoteric's Super Audio CD transport models using either two HDMI cables or a single XLR cable.

ES-Link 5

ES-Link 5 is an ultra-wideband digital interface developed exclusively by Esoteric. The ES-Link 5 supports up to 22.5MHz DSD or 768kHz/48-bit PCM using two HDMI cables. The HDMI multi-cable configuration is used for the transmission of fully balanced audio data, LR clock and bit clock signals. Unlike conventional digital transmission, no processing is required for signal modulation at the sending end or for demodulation at the receiving end, thus significantly reducing the digital processing load on the DAC to achieve pure digital transmission.

Support for Various Network Sources

The Grandioso N1 supports a wide range of formats for network playback, including DSF, DSDIFF, FLAC, ALAC, WAV, AIFF, MP3, AAC, and MQA. It handles playback up to DSD 22.5MHz and PCM 768kHz/32-bit, and also supports the 32-bit float format commonly used in the professional audio industry. The Grandioso N1 provides gapless playback for all lossless formats.

* Downconverted to 384kHz for playback.

Esoteric Sound Stream – Intuitive Control Meets Audio Quality

The Esoteric Sound Stream app, available for both Apple iOS and Android devices, is designed to combine exceptional sound quality with effortless usability. Tailored for smartphones and tablets, this innovative app allows users to easily browse, manage, and customize their music playback experience with just a few taps.

With its intuitive interface, creating and managing playlists becomes seamless. All screens are thoughtfully designed for straightforward navigation, ensuring that music libraries and playlists are easily accessible to users of any experience level. At the same time, the app offers a suite of advanced features to satisfy even the most seasoned audiophiles.

Compatible with a Wide Selection of Audio Codecs and Streaming Services

Esoteric has partnered with a wide array of streaming service and audio codec providers, and preparations are currently underway to provide compatibility with newer services.

* Information on newly supported services will be released on Esoteric's website.

* Please note that regional restrictions may be applied on some services.

TIDAL / TIDAL Connect

Begin your encounters with new music through TIDAL, a high-end music streaming service that has officially partnered with Esoteric. TIDAL's lossless music distribution service operates on a fixed rate basis. Offering instant access to its enormous sound library, TIDAL enables users to enjoy their favorite music online with excellent sound quality. The Grandioso N1 also supports TIDAL Connect playback.

Qobuz / Qobuz Connect

Founded in 2007 and a pioneer of high quality sound, Qobuz is the French music streaming and download platform for those who want to live and share their passion for music. Available in 26 countries (as of 2024) around the world, in Europe, USA, Canada, Australia, New Zealand, Latin America and Japan, Qobuz offers an exceptional range of exclusive editorial content written by a team of experts. With its catalog of more than 100 million tracks, Qobuz also has the richest choice of high-resolution (Hi-Res) titles. The Grandioso N1 also supports Qobuz Connect playback.

Roon Ready

Roon is the most engaging, enjoyable way to browse your music. Being Roon Ready means that Esoteric network players transparently discover and connect to Roon, with no network configuration, with bitperfect delivery of audio to your dac. Together, Roon and Esoteric deliver the power, flexibility, and performance benefits of networked audio, with the easiest setup and highest reliability available.

* Regarding Roon Ready, we are currently undergoing certification testing. We will announce on the website when we have officially decided to support Roon Ready.

RAAT (Roon Advanced Audio Transport) Dedicated Mode

The Grandioso N1 is equipped with a dedicated RAAT mode that reduces the CPU processing load by disabling all network functions except those required for RAAT, thereby improving playback quality when using Roon.

Spotify

Spotify is an on-line music streaming service delivering over 40 million music. Two types of services are provided, a basic service called "Spotify Free" for free, and on-demand and high-quality sound subscription service called "Spotify Premium" at flat rate.

MQA

MQA is an award-winning technology that delivers master quality audio in a file that's small enough to stream or download. Using pioneering scientific research into how people hear, MQA captures and authenticates the sound of the original studio performance.

Chassis Construction

To achieve the singular design goal of "reproducing the master sound" the Grandioso N1 chassis optimally controls all vibrations that affect sound quality. The mechanical engineering of the chassis is comparable to that of a Formula 1 car, with the balance between rigidity and flexibility pushed to the limit. The sleek and clean shape of the chassis is a testament to its high level of perfection. The cabinet, which requires rigidity, extensively utilizes heavyweight aluminum blocks to ensure no resonance, while the top panel features a semi-floating structure for a more open sound.

High Rigidity Chassis Design

A high-rigidity double-layer chassis made of thick aluminum and steel is used. The inside of the chassis is double-layered to minimize mutual interference between circuits and to minimize power supply wiring. The entire unit is supported at three points by a 5mm thick steel base chassis and patented Pinpoint Isolation Feet, which provides effective mechanical grounding of vibrations.

Unique Pinpoint Isolation Foot (Patent No. JP 4075477, 3778108, and 7413773)

Esoteric's unique patented isolation foot, which integrates a spike and spike pad, has been further refined and developed. Suspended from the lower chassis, the top of the foot connects to the lower chassis under the weight of the unit when placed. The top of the foot has been tapered to a conical shape to minimize the contact area between the chassis and the foot. The bottom of the foot (integral spike pad) is also concave in a ring shape so that it touches the floor only at the edges, with added slots to disperse resonant modes. By minimizing the contact area between the chassis and the foot, as well as between the spike pad and the floor, vibration control has been optimized, resulting in sharper focus and a more open sound.

Included accessories

- Power cord x 1
- Cap for DC IN terminal x 2
- Owner's manual x 1
- Warranty card x 1

Spezifikationen

Produktattribute

EAN:	4907034225873
Herstellernummer:	GRANDIOSO N1
Produkt Gewicht:	27.8 kilogramm