



ESOTERIC

## GRANDIOSO K1X SE SACD/CD-Player

253023

Two Revolutions – Integrated Now evolved to the SE version for further sound quality.



### PRODUCT DETAILS

#### VRDS Technology

VRDS (Vibration-Free Rigid Disc-Clamping System) is Esoteric's unique CD/Super Audio CD transport technology, which has been specially designed to clamp the disc to a same-diameter turntable in order to eliminate the disc's rotational vibration, as well as any extraneous vibration emanating from the mechanism itself. It also corrects any warpage of the disc, dramatically improving the accuracy of both the optical pickup and the disc pit layer's corresponding optical axis, while also minimizing servo current. This all adds up to dramatically reduced disc read error for exceptional audio quality.

#### Highest Rigidity & Heaviest Construction in the 30+Year History of VRDS

The new VRDS-ATLAS platform boasts unprecedented mechanical perfection and superlative audio quality, with heavyweight construction that is fully 127% heavier than previous iterations (6.6kg for the mechanism alone, and 13.5kg including its base). This highest rigidity and weight in the history of VRDS mechanisms has the effect of greatly reducing any and all vibration that could adversely affect audio quality. The transport's larger new side panels and bridge are all formed of SS400 steel, and its turntable is made from duralumin, which is renowned for its excellent sound quality. Also, its spindle features a newly designed thrust bearing system, for a friction-free one-point spindle support system that ensures smooth, noiseless turntable rotation.

#### Wide, Low Center-of-Gravity Design

Esoteric's impressive VRDS-ATLAS is the quietest and most elegant transport in the history of VRDS. The key to achieving this was a resolute focus on mechanical grounding technology that more effectively reduces vibration. Adopting a wide & low-profile design for the entire mechanism helped achieve a lower center-of-gravity, and relocating the turntable motor to below the turntable from its previous position above the bridge dramatically shortened the route for grounding vibration and reducing mechanical noise. Tray hollowing has also been minimized for increased rigidity, and special stoppers made from vibration-absorbing elastomer cancel out resonance when the tray is stored.

#### Powerful Power Circuit Essential for Audio Quality

The Grandioso K1X SE's mighty power supply is the key to its powerful and profound three-dimensional sound. Its built-in D/A converter features independent power transformers for left and right channels, and the K1X SE includes a total of four independent toroidal power supply transformers. Furthermore, technologies cultivated in the development of the Grandioso P1X/D1X have also been adopted, including a low-feedback DC power supply regulator featuring a discrete circuit configuration which contributes to its powerful open sound. The K1X SE also contains a total of 76 EDLC\* supercapacitors (with a total capacitance of 2,050,000µF or 2.05F). This greatly increased power supply capacitance provides a tremendously improved sound quality for exceptional resolution in the lower frequency ranges.

\*EDLC (Electric Double-Layer Capacitor): A special type of capacitor boasting an astoundingly high capacitance compared to the electrolytic capacitor used in conventional audio equipment.

### **Chassis Construction and Parts Layout**

The VRDS-ATLAS transport mechanism is centered and mounted on a 5mm thick steel base chassis. This effectively suppresses vibration from the transport mechanism. The chassis interior has a double-layer structure, with audio boards mainly on the top layer and power circuits and transformers on the bottom layer to prevent magnetic flux leakage and vibration, and to minimize power supply wiring. Esoteric's original Pinpoint foot\*, which integrates a spike and saucer, has been replaced with a new foot that is not bolted to the lower chassis, but is held in place by the weight of the chassis when installed. By avoiding the stress concentration caused by screwing the Pinpoint foot body into the large surface area of the lower chassis, a more open sound is created.

\*Patent JP4075477 / JP3778108

### **Semi Floating Top Panel**

The enclosure's top panel utilizes a screwless semi-floating structure that further contributes to an open and dynamic sound.

### **Master Sound Discrete DAC**

#### **Bringing Out All the Dynamics and Energy of Music.**

Unattainable by integrated chips, our goal was to assemble carefully selected and tested discrete components into a complete circuit that could perfectly reproduce all the dynamics and energy of music. Our top engineering teams put their pride on the line to design and produce a quality of sound that can only be found in the "Master Sound Discrete DAC" discrete D/A converter.

### **Luxurious Materials and Powerful Current Output**

The K1X SE's Master Sound Discrete DAC is the most revolutionary two-channel stereo DAC circuit in Esoteric's history, and is based on the original circuit developed for the Grandioso D1X SE monaural D/A converter.

As an extension of the D1X SE's design philosophy, a luxurious volume of materials have been invested in the construction of K1X SE's Master Sound Discrete DAC. For example, it features 32 separate elements for each channel. Key components such as a clock driver, logic circuit, and capacitors and resistors, are kept independent for each of these 32 elements to ensure the purest output without no loss of musical energy.

### **Advanced Digital Processing**

The K1X SE's independently developed Delta-Sigma ( $\Delta\Sigma$ ) modulator supports 64-bit/512Fs and the latest high-end digital formats, including of 22.5MHz DSD and 768kHz PCM signals. The FPGA's\* dedicated digital processing algorithm was developed exclusively for the Master Sound Discrete DAC, and has been fully optimized for outstanding playback of both DSD and PCM digital audio data.

\*FPGA: Field-Programmable Gate Array

### **Upgraded with IDM-01 and Other Quality Parts**

In the new SE model, the discrete parts of the analog circuitry on the DAC board have been refreshed for even better sound quality. The amplifier element is the original "Integrated Discrete-Amplifier Module IDM-01". The materials, circuit patterns, and layout have been carefully studied by Esoteric's engineers as if designing an amplifier with a discrete configuration, and the extremely short signal path that takes advantage of integrated circuits amplifies the vibrancy of music in a dynamic and subtle way. The IDM-01 and other analog parts, such as analog filter resistors and capacitors, have been carefully selected to achieve a more vivid live sound, improved audible dynamics, and a more organic texture.

### **Advanced Quality Control**

With a discrete DAC, where component tolerances are directly linked to arithmetic precision, highly advanced quality control is also required for the manufacture of electronic circuit boards. Esoteric's own in-house factory boasts some of the world's leading board mounting technologies, such as soldering performed in an oxygen-free furnace, which is located in a clean room featuring the same level of cleanliness found in a hospital operating room. Technologies cultivated in the production of electronic circuit boards for audio, medical, aerospace, and defense industries support the high production quality of the Master Sound Discrete DAC.

### **Unique Esoteric-HCLD\* Output Buffer Circuit with Enhanced Current Transmission**

The Esoteric-HCLD output buffer amplifier boasts an amazingly high-speed slew rate (response speed) of 2,000V/ $\mu$ s. Current transmission and speed—the most important factors for an analog output circuit—have been pushed to the limits to reproduce the reality of music with a dynamic range that is truly breathtaking.

\*HCLD: High Current Line Driver

### High-Quality ES-Link Analog Current Transmission

In addition to its XLR and RCA amplifier line connections, the K1X SE also features the ES-Link Analog method of current transmission. Taking full advantage of the HCLD buffer circuit's powerful current supply makes the K1X SE less susceptible to the detrimental effects of impedance on the signal route. It also enables a more powerful signal transmission, fully driving connected compatible devices.

### 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 G1X's unique discrete circuitry has been highly acclaimed for its superior musical expressiveness, creating a buzz in the world of high-end audio that has traditionally been described only in terms of technical specifications.

The "Master Sound Discrete Clock for Digital Player" used in the K1X SE 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. The K1X SE can also be connected to the Grandioso G1X external master clock generator to improve sound quality by synchronizing the internal circuitry to an even more accurate 10 MHz clock.

### External Input, D/D Conversion & USB Input

In addition to its coaxial and optical inputs, the K1X SE also features a USB type-B port that is compatible with both 22.5MHz DSD and 768kHz/32-bit PCM asynchronous signal transmission, thus enabling it to also be used as a stand-alone D/A converter. Functions are provided for upsampling a PCM digital signal to 2/4/8/16× (max. 768kHz) and converting PCM to DSD.

### Double-Face Remote Control

A compact and simple remote control is included that can also operate Esoteric amplifiers. The functional design features buttons used for each operation scenario on both sides of the remote control, and the smartphone-sized aluminum body, which fits comfortably in the hand, is achieved through advanced metal processing. Esoteric's new approach is a design that allows you to experience thoughtful operability and craftsmanship every time you pick it up.

## Specifications

### Product attributen

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| EAN:            | 4907034225170    |
| Fabrieksnummer: | GRANDIOSO K1X SE |
| Productgewicht: | 34.2 kilograms   |