

Super Audio CD / CD Player



K-01XD



K-03XD



K-01XD / K-03XD

## Specifications

### Playable disc types

Super Audio CD, CD (including CD-R and CD-RW)

### Analog audio outputs

XLR/ESL-A 1 pair (L/R)  
 RCA 1 pair (L/R)  
 Output impedance XLR: 114Ω, RCA: 34Ω  
 Maximum output level XLR: 5.0Vrms, RCA: 2.5Vrms

### Audio performance (when Super Audio CD at 0 dB, DSD is F2, XLR output)

Frequency response 5 Hz - 70 kHz ( -3dB)  
 S/N ratio 113 dB (A-Weight)  
 Distortion 0.0007% (1 kHz)

### Digital audio outputs

XLR 1  
 Output level 3 Vp-p (into 110Ω)  
 Output signal formats Linear PCM (AES/EBU) 44.1kHz, 16bit (CD)  
 RCA 1  
 Output level 0.5 Vp-p (into 75Ω)  
 Output signal formats Linear PCM (IEC 60958) 44.1kHz, 16bit (CD)

### Digital audio inputs

RCA 1  
 Input signal formats Linear PCM (IEC 60958) 32 - 192 kHz, 16 bit, 24 bit  
 DSD (DoP) 2.8MHz  
 OPTICAL 1  
 Input signal formats Linear PCM (IEC 60958) 32 - 192 kHz, 16 bit, 24 bit  
 DSD (DoP) 2.8MHz  
 USB-B(USB 2.0 standard) 1(Type-B)  
 Input signal formats Linear PCM (IEC 60958) 44.1-384 kHz/16 bit, 24 bit, 32 bit  
 DSD 2.8 MHz, 5.6 MHz, 11.2 MHz, 22.5 MHz

### Clock input

BNC 1  
 Frequencies that can be input(±10ppm) 10MHz  
 Input impedance 50Ω  
 Input level Sine wave (0.5 to 1.0 Vrms)

### External control interface

RS-232C 1  
 TRIG 1(3.5mm monoral mini jack)  
 Model for Europe AC 220-240 V, 50/60 Hz  
 Model for USA/Canada AC 120 V, 60 Hz  
 Model for Korea AC 220 V, 60 Hz  
 Model for Hong Kong AC 230 V, 50 Hz

### Power supply

Power consumption K-01XD:26W, K-03XD:25W  
 External dimensions (W x H x D, including protrusions) 445 x 162 x 438mm (17 5/8" x 6 1/2" x 17 1/4")  
 Weight K-01Xs: 31kg (68 3/8 lb) ; K-03Xs: 28kg (61 3/4 lb)

### Included accessories

Power cord x 1, Remote control x 1

# ESOTERIC

## Super Audio CD/CD Player K-01XD/K-03XD



PROUDLY MADE IN TOKYO

# ESOTERIC

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PRINTED IN JAPAN 0220002 • TECD - 0299

## ***Traditional Esoteric Performance and Advanced Features***

*VRDS-ATLAS, a superlative transport mechanism.*

*Esoteric's own, in-house designed Master Sound Discrete DAC.*

*Two innovative technologies,*

*originally developed for our flagship Grandioso models,*

*now combined into two new "XD" edition K series models that deliver unrivaled performance.*

*Since the first debut of our K-01 and K-03 Super Audio CD Players, Esoteric's integrated digital players have captivated listeners with their unrivaled playback of musical sources. They have also gone on to win numerous awards as they have come to be regarded as the gold standard of digital players around the world. This new*

*"XD" edition boasts even more advanced features, combining two innovative technologies originally developed for Esoteric's flagship Grandioso K1X model: VRDS-ATLAS, the superlative Super Audio CD transport mechanism, and Master Sound Discrete DAC, designed completely in-house by Esoteric to provide even more enhanced playback from digital musical sources.*

*The incredible dynamic range and resolution achieved by these two technologies deliver thrilling reproduction of symphonic crescendos while reproducing an expansive spectrum of tones and faithfully rendering the subtle details of music with breathtaking depth and vivid realism. This broad versatility enables anyone to confidently enjoy an endless array of musical genres, from silky-smooth arias to pounding rock tunes. Now you too can fully experience a sound brought to life in a new pedigree of components from the name that has captured the hearts of music enthusiasts the world over: Esoteric.*

Super Audio CD/CD Player

# K-01XD

Super Audio CD/CD Player

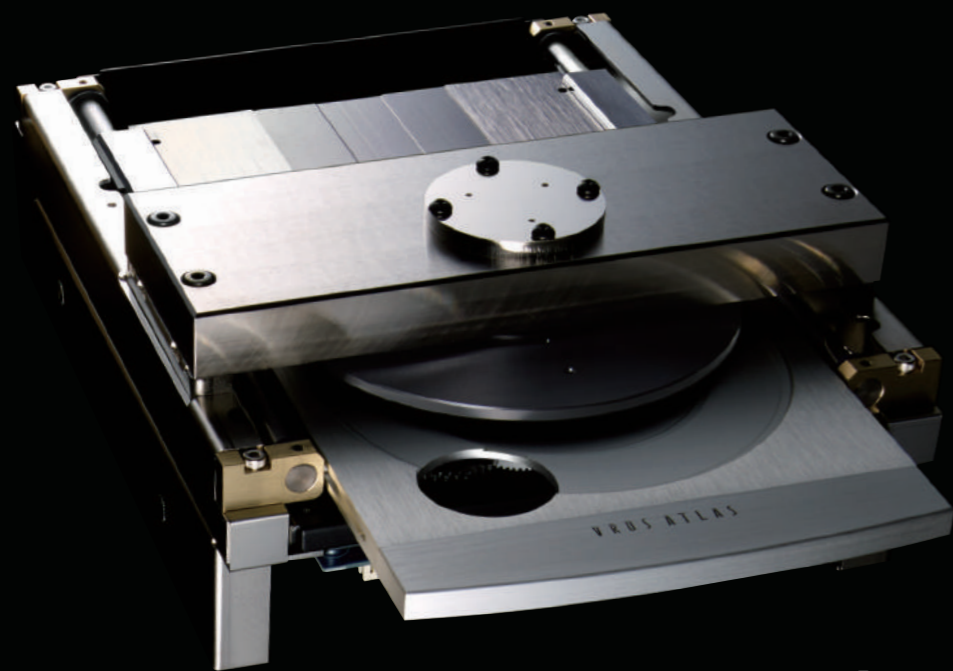
# K-03XD



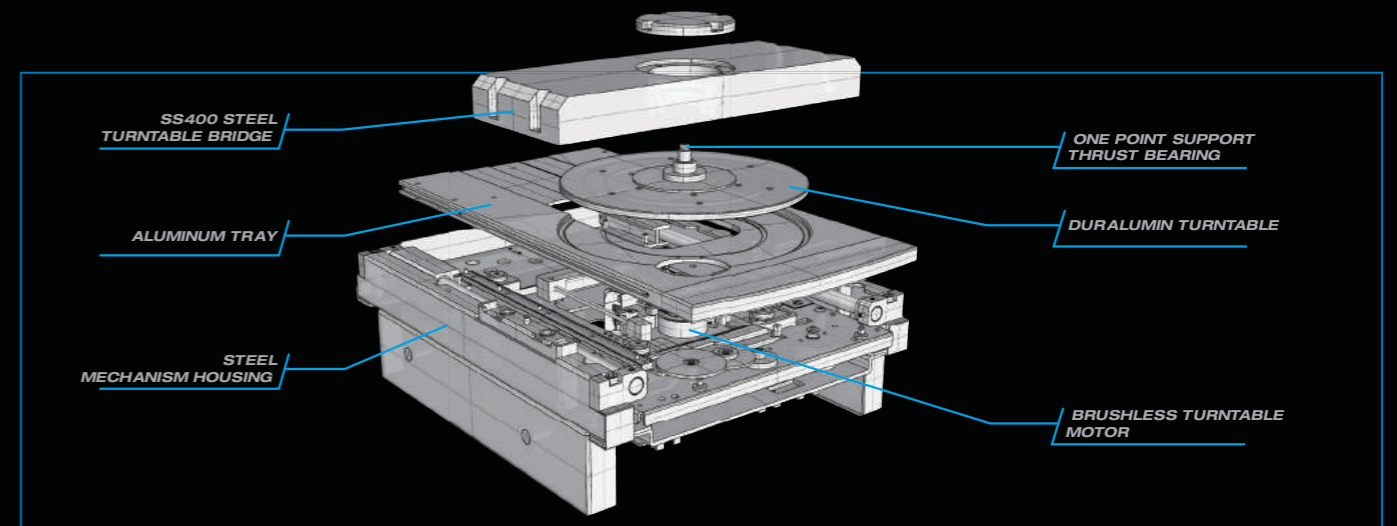
# VRDS ATLAS



VRDS-ATLAS [ATLAS 01]



VRDS-ATLAS [ATLAS 03]



## VRDS Technology

VRDS (Vibration-Free Rigid Disc-Clamping System) is a core technology of Esoteric's CD/Super Audio CD transport mechanisms that has been a key point of focus since the brand's founding. The system firmly clamps the disc onto a turntable of the same diameter, thus eliminating both the rotational vibration of the disc itself and the effects of any extraneous mechanical vibration. Any latent disc warpage is also corrected by the turntable to significantly improve the relative optical axis accuracy of the optical pickup and the disc pit surface, while also minimizing servo current. This all combines to significantly reduce disc read error and further enable breathtaking sound quality.

## Adding VRDS-ATLAS to the K-01/K-03 Series

The VRDS mechanism has undergone continuous development and improvements for over 30 years. Throughout its long, illustrious history, one prominent highlight has been the debut of the VRDS-ATLAS platform, which offers the pinnacle of perfection and sound quality. Both the K-01XD and K-03XD are equipped with VRDS-ATLAS mechanisms that have been specifically customized for each model in order to carry on the full qualities of the VRDS-ATLAS reference mechanism used in our flagship models, the Grandioso P1X and K1X.

## Two New Versions of VRDS-ATLAS: ATLAS 01 and ATLAS 03

The K-01XD's new ATLAS 01 disk transport features a 20mm-thick SS400 steel bridge that is identical to that used in our high-end Grandioso models. The K-03XD's ATLAS 03 system employs a simpler 18mm-thick bridge that requires far less machining. Both mechanisms boast ultra-high rigidity and a weighty design to damp out any vibration that could affect sound quality. The transport's duralumin turntable also has a well-earned reputation for excellent sound quality, and its solid steel bridge is larger than that for the VRDS-NEO, using a one-point spindle bearing design that minimizes friction and rotational noise through its point-contact thrust bearing, which utilizes the same steel ball featured in the high-end models.

## Wide, Low Center-of-Gravity Design

As the quietest and most elegant transport in VRDS history, Esoteric's impressive VRDS-ATLAS epitomizes the company's resolute focus on mechanical grounding technology in order to more effectively reduce vibration.

Adopting a wide, low-profile design for the entire transport mechanism helped achieve a lower center-of-gravity, while the relocation of 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 following has also been minimized for increased rigidity, and special stoppers made from vibration-absorbing elastomer cancel out resonance when the tray is in its closed position.

## High-Performance Power Supply—The Key to Sound Quality

The key to the powerful and deeply luxurious sound quality of the K series has always been their high-performance power supplies. This new XD edition features a significantly enhanced power supply design that delivers even richer, more lifelike sound. The K-01XD is equipped with a total of four high-capacity toroidal power transformers that provide more than ample power by dedicating separate transformers to the D/A converter's Left and Right channels, the transport mechanism, and the digital circuitry. The K-03XD features a total of two high-capacity toroidal power transformers with independent power supplies for the digital and analog circuitry.

## New Low-Feedback DC Regulator and Super Capacitors

The higher capacity design of the K-01XD and K-03XD power supplies enables remarkable improvements in sound quality with enhanced resolution in the lower ranges. Their low-feedback DC power regulators minimize feedback in a discrete configuration that does away with integrated circuits by utilizing technology originally developed for the Grandioso P1X/D1X, resulting in a powerful, expansive sound. A total of 71 high-capacitance super capacitors are used in the K-01XD (total capacitance: 1,850,000 $\mu$ F), while the K-03XD uses 26 super capacitors (total capacitance: 650,000 $\mu$ F).

## Chassis Construction and Parts Layout

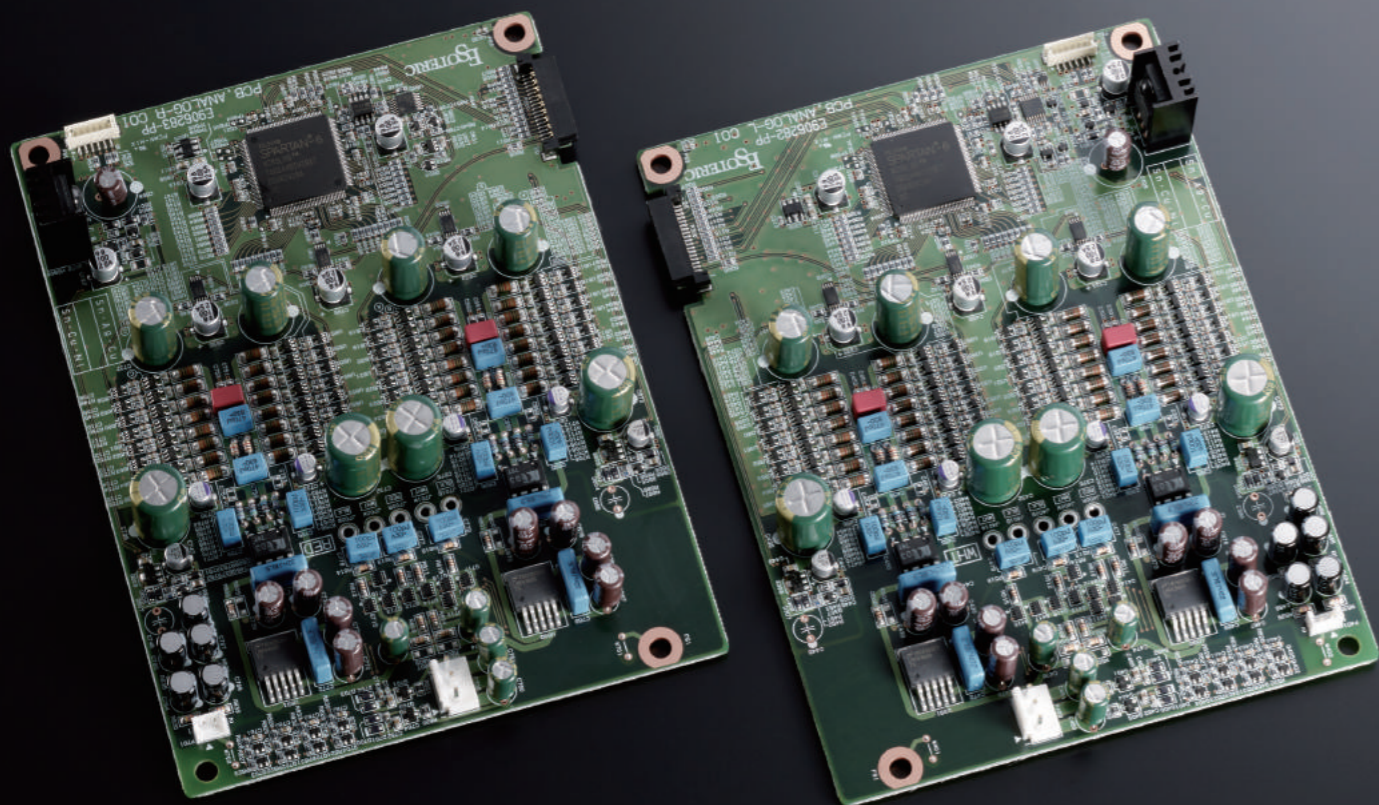
The VRDS-ATLAS transport mechanism is centrally located within the chassis, where it is fixed to a 5mm-thick steel bottom plate and supported by three proprietary pinpoint feet (patent no. 4075477 and 3778108). This effectively isolates the rotational mechanism from vibration. The internal structure of the chassis features a double deck design, with the audio boards on the upper level and power supply circuits and transformers on the lower level to minimize magnetic flux leakage and vibration, while also shortening power supply wiring.

## Semi -Floating Top Panel

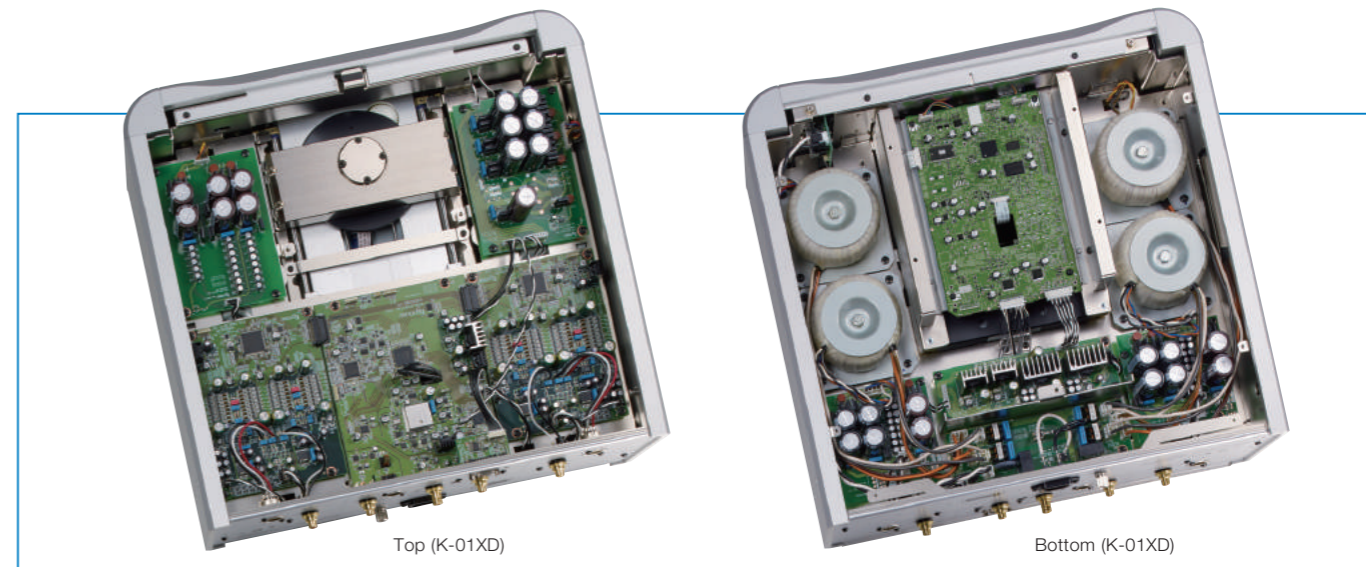
The enclosure's top panel utilizes a screwless semi-floating structure that further contributes to an open and expansive sound.

# Master Sound Discrete DAC

Bringing out all the dynamics and energy of the original master recordings.



K-01XD Dual-mono D / A converter based on the latest platform



Top (K-01XD)

Bottom (K-01XD)

## Master Sound Discrete DAC Bringing out all the dynamics and energy of music.

Our goal was to assemble a carefully chosen selection of rigorously tested discrete components into a complete circuit that could perfectly reproduce all the dynamics and energy of music —something simply unattainable using ordinary integrated chips. Our top engineering teams put their pride on the line to design and produce a quality of sound that can only be found in our Master Sound Discrete DAC discrete D/A converter.

## Luxurious Materials for Powerful Electrical Current Output

The Master Sound Discrete DAC was first introduced in the Grandioso D1X as the most innovative DAC in Esoteric history, and its astoundingly realistic sound quality has consistently drawn rave reviews for causing listeners to feel as if they were at an actual live performance. The versions featured in the K-01XD and K-03XD both use a simpler circuit configuration that incorporates the very essence of that found in the K1X to carry these 01 and 03 series models to new heights. Consisting of 32 elements per channel, each DAC element includes clock drivers, logic circuits, capacitors, resistors, and other component parts, while each group of 32 elements is kept isolated from the main parts. In keeping with D1X design philosophy, these DACs are packed with a luxurious selection of state-of-the-art components to ensure the pure, effortless output of boundless musical energy. Only select, premium-grade high-sound-quality parts are used in the K-01XD, for an uncompromising sound that is one step above.

## Advanced Digital Processing

The K1X's independently developed Delta-Sigma( $\Delta\Sigma$ ) modulator supports 64-bit/512Fs and the latest high-end digital formats, including of 22.5MHz DSD 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

## 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 astonishing high-speed slew rate (response speed) of 2,000V/ $\mu$ s. Current transmission and speed—the most important factors in the design of any 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 Super Current Transmission

In addition to their XLR and RCA amplifier line connections, the K-01XD and K-03XD also feature Esoteric's the ES-LINK Analog method of current transmission. Taking full advantage of the HCLD buffer circuit's powerful current supply ensures that both models are 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.

## Grandioso Custom VCXO\* II

A high-accuracy clock circuit is the key to achieving superlative sound quality in digital audio playback, making it truly the heart of any high-end digital player. The K-01XD and /K-03XD both features the superb Grandioso Custom VCXO II clock originally developed for the Grandioso P1X/D1X. This clock was developed with carefully considered modifications made to the internal circuitry and components of other earlier models to more vividly emphasize each player's ultimate audio quality while further boasting remarkably low phase noise and excellent center precision ( $\pm 0.5$ ppm).

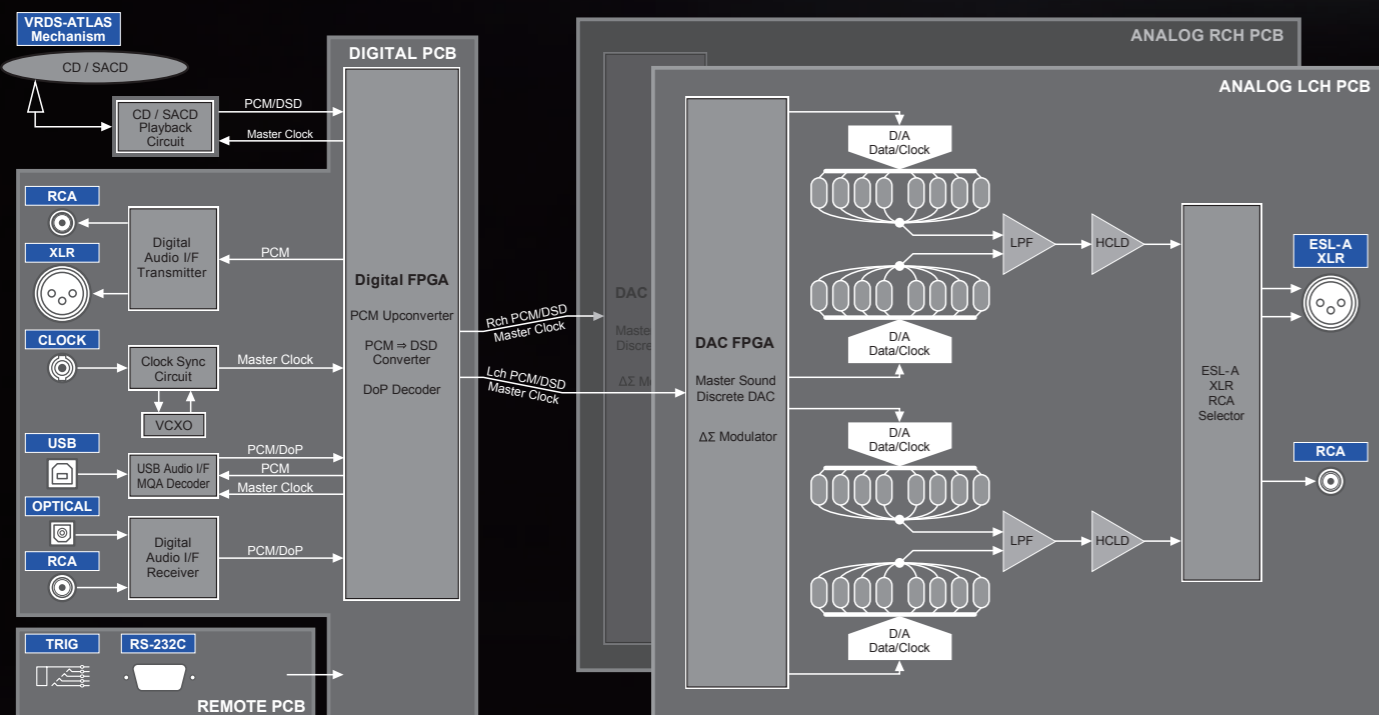
Both models can also be connected to a Master Clock Generator (G-01X or G-02X) for playback, with internal circuits synchronized to a 10MHz clock that features the same high precision as an atomic clock, enabling further pursuit of the highest sound quality.

\*VCXO: Voltage Control-type Crystal Oscillator

## External Input D/A Conversion, USB Ports, Multiple D/D Conversion Options, MQA Support

Both models offer a wide range of digital inputs, including USB ports that support 22.5MHz DSD and asynchronous transmission, enabling use as a D/A converter. Functions to upconvert a PCM digital signal to 2, 4, 8, and 16 times higher bitrates (Max. 768kHz) and to convert PCM to DSD are also included. Both models are also compatible with MQA-CD decode playback and full MQA decoding for playback of various digital inputs including USB.

## K-01XD/K-03XD Signal Block Diagram



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