

ESOTERIC

Super Audio CD/CD Player **K-05Xs**



A New Renaissance in Playback as an Art Form

The artists of old never rested on their laurels. They constantly strove for greater heights, pouring passion into every step of the way. At Esoteric, we have taken that spirit of creation to heart, bringing the skill and passion of those old masters to the next evolution of our Super Audio CD player.

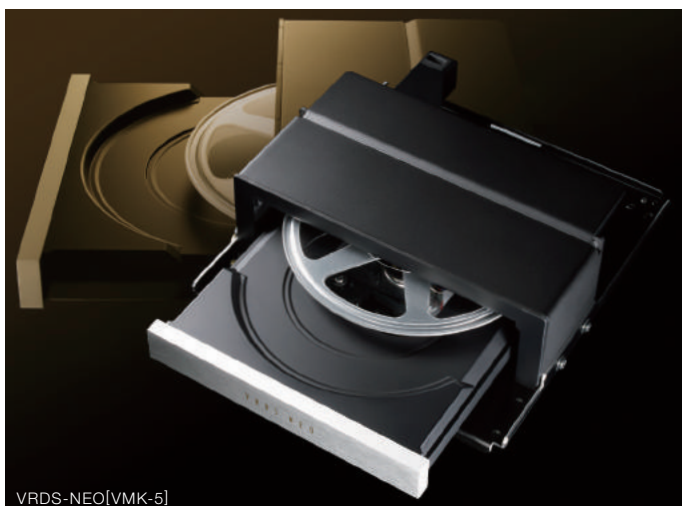
The K-05Xs, the third incarnation of the K-05, heralds a new renaissance in playback as an art form.



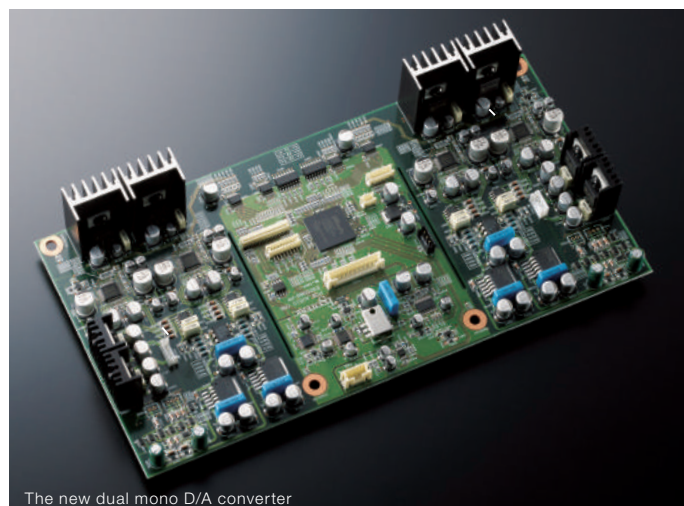
Super Audio CD/CD Player

K-05Xs

The K-05 Super Audio CD player is the core model in the K series, following the legendary K-01 and K-03 players. The first version of the K-05 was launched in 2011, and in 2015 this evolved into the K-05X. The K-05X instantly became a top seller because of features such as the VRDS-NEO Super Audio CD transport mechanism. This mechanism uses a unique construction that enables it to provide an outstanding level of musical performance, which is why it was adopted by a number of other world-famous high-end audio makers. In its third generation form, the K-05Xs, incorporates the best qualities of Esoteric's flagship model, the Grandioso K1. It combines established class-leading features, such as the VRDS-NEO (VMK-5) mechanism and a high-rigidity aluminum chassis, with the latest K1 DAC platform employing a new dual-mono D/A converter, high current output buffer amplifiers and a new power supply.



VRDS-NEO[VMK-5]



The new dual mono D/A converter

VRDS-NEO [VMK-5]

The unique VRDS-NEO VMK-5 transport mechanism featured in this new model incorporates high-precision turntable that greatly improves reading accuracy by mechanically correcting for disc surface run-out. It's hybrid construction integrates precision-machined aluminum with polycarbonate to help minimize rotational inertia.

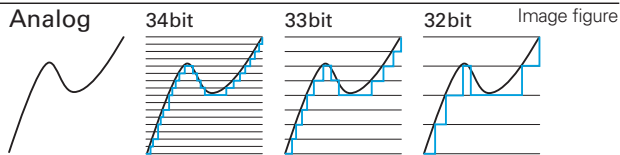
Formed of high-rigidity BMC (Bulk Molding Compound) and steel, the hybrid turntable bridge also makes a significant contribution to the suppression of rotational vibration and run-out. The transports spindle motor realizes further improvements in reading accuracy with an advanced servo control that uses rotation detection circuitry.

Following in the Footsteps of the Grandioso K1: The New Dual Mono D/A Converter

The digital-analog converter section has been fully redesigned based on the latest platform used in the Grandioso K1. An AK4493 32-bit DAC from Asahi Kasei Electronics has been combined with premium components and the latest design technology to provide an exceptional level of sound quality. Four converters are used in each channel in a parallel differential configuration, to provide class-leading linearity and extremely low distortion. Like the K-01Xs and K-03Xs, additional buffer amplifiers are placed immediately after the DAC outputs and this gives a more powerful bass and better reproduction of low-level signals. The layout of the DAC power section has been revised to provide further improvements to the noise performance and stability.

34-bit D/A Processing for Outstanding Powers of Musical Expression

The K-05Xs combines multiple 32-bit DAC chipsets and utilizes a 34-bit D/A processing algorithm to convert the PCM signal to analog at a high resolution of 34 bits. 34-bit processing achieves an astounding resolution that is fully 1,024 times that of 24-bit processing. In the digital range, full advantage is taken of high-bit data gradation to minimize calculation errors and provide faithful conversion to analog, thereby attaining outstanding powers of expression even with extremely small music signals.



Esoteric-HCLD: A Unique Output Buffer Circuit that Optimizes Current Transmission

For an output stage to faithfully convey the wide dynamic range of a musical performance to the next component in the system, it needs to be able to deliver high currents at high speed. To achieve this, the K-05Xs uses the same Esoteric-HCLD (High Current Line Driver) output buffer as our top-of-the-line-models. This buffer uses high-speed output devices to provide an exceptionally high slew rate of 2,000V/μs. Each channel uses two buffer circuits. These are configured differentially for the XLR output and in parallel for the RCA output to provide outstanding linearity and dynamics.

ES-Link Analog: A High Sound Quality Current Transmission Analog Interface

As well as the standard XLR and RCA analog interfaces, Esoteric's proprietary "ES-Link Analog" analog interface is also fitted and this is incorporated into the XLR output circuit. This takes advantage of the high current drive capability of the HCLD buffer circuit, making it less susceptible to the effects of the impedance of the signal path and enabling the audio signal to be transmitted with improved clarity and dynamics. The maximum potential of this system is obtained when it is used with compatible equipment such as Esoteric's F Series integrated amplifiers*.

*Optional OP-ESLA1 input board is required.

Generously Rated High-Speed Power Supply

Together with the D/A converter and output buffer amplifier, the quality of the power supply is also a key factor in achieving high sound quality. In the K-05Xs, this has been re-engineered to provide greater stability and lower noise, combining a large toroidal power transformer with new capacitors designed for exceptional sound quality and a set of super EDLC capacitors.* This set has an extremely large capacity of 330,000μF, enabling the power supply to provide each section with a clean and stable power source.

*EDLC = Electric Double-Layer Capacitor

Wide Range of Upsampling Options

In addition to playing back a digital audio source at the original sample rate, the K-05Xs can upsample PCM signals to 2x, 4x, 8x and 16x (maximum 768kHz). It can also convert a PCM source to DSD 512 (22.5MHz). A DSD filter may be switched in according to preference.

Digital Inputs

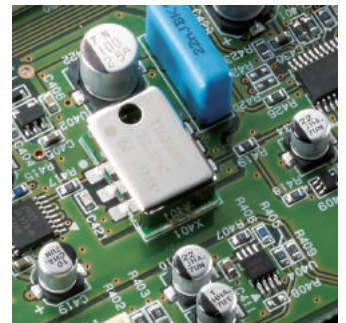
Three digital inputs (USB, coaxial, and optical) enable connection to a wide range of systems. Coaxial and optical inputs support DSD 2.8 MHz (DoP) input and PCM of up to 192 kHz/24-bit.

USB Audio Interface with DSD22.5MHz and PCM768kHz/32-Bit Asynchronous Transmission

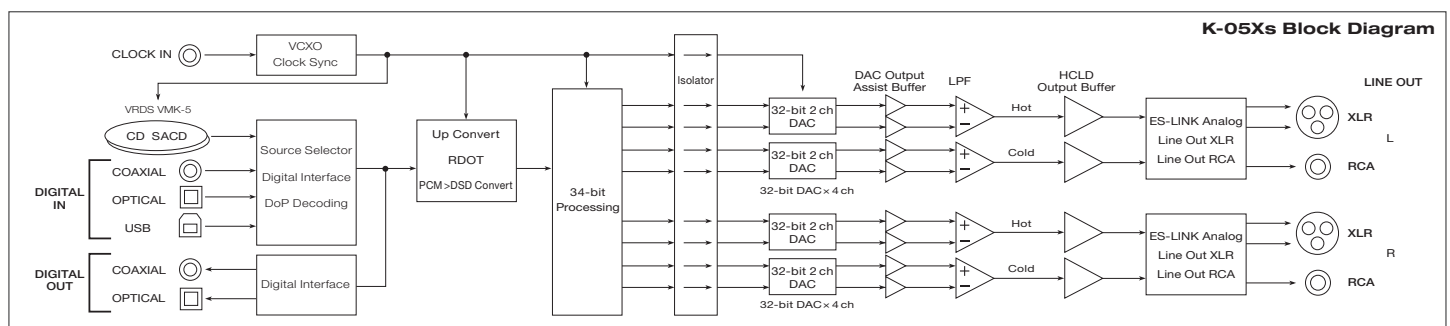
The K-05Xs is equipped with a USB interface to allow it to receive digital data from a computer or an Esoteric N-03T Network Transport. The USB driver and Esoteric HR Audio Player playback software may be downloaded free from our website. The interface supports DSD rates up to DSD512 (22.5MHz) and PCM data up to 768 kHz / 32 bits. The USB interface also supports the Bulk Pet protocol to allow studio-quality playback.

High-Precision VCXO Clock

The heart of any digital audio player is the clock circuit. This ensures that all the digital sections work in perfect synchronization and most importantly, that the audio samples are reproduced at the correct rate. The K-05Xs' clock uses a custom-designed VCXO (Voltage-Controlled Crystal Oscillator). This provides extremely low phase noise and a high level of absolute accuracy (±0.5ppm), which in turn improves low-level detail resolution.



Power supply components



K-05Xs Block Diagram

External Clock Synchronization Feature

Whilst the internal VCXO-based clock provides a very high-quality clock signal, the audio performance of the K-05Xs can be further improved by connecting it to a high-precision master clock generator such as the G-02X. This can be used when playing discs, or when receiving digital audio data via the USB interface.

Output Modes

The analog audio output can be switched between ES-LINK Analog, RCA, and XLR. Hot 2 or Hot 3 XLR pin assignments can also be selected. Loss in audio quality is eliminated with a non-contact system by performing phase inversion in the digital domain.

Chassis Construction

The heavy aluminum chassis is supported by three of Esoteric's unique precision-machined steel insulators to provide maximum vibration suppression. The elegant styling of the chassis is the same as our top-end models and employs round forms and heavy aluminum panels with the minimum use of screws. These features are combined with an attractive organic EL display to form an extremely attractive design worthy of a leading product like the K-05Xs and enhance the pleasure of using and owning this Super Audio CD player.



Remote control : RC-1301



Specifications

Playable disc types

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

Analog audio outputs

XLR/ESL-A connector 1 pair (L/R)
 RCA connector 1 pair (L/R)
 Output impedance XLR: 40Ω ; RCA : 15Ω
 Maximum output level (at 1kHz, 10kΩ load)
 XLR: 5.0Vrms RCA: 2.5Vrms

Frequency response* 5Hz to 55kHz (-3dB)
 S/N ratio* 119dB(A-Weight)
 Distortion* 0.0013% (1kHz)

*Super Audio CD, XLR output

Digital audio outputs

COAXIAL 1
 OPTICAL 1

Digital audio inputs

COAXIAL 1
 OPTICAL 1
 USB-B port (USB 2.0 standard) 1

Clock input

BNC connector 1
 Input impedance 50Ω
 Frequencies that can be input(±15ppm)
 44.1, 48, 88.2, 96, 176.4, 192kHz,
 10, 22.5792, 24.576MHz

Input level
 Rectangle wave equivalent to TTL levels
 Sine wave 0.5 to 1.0 Vrms

General

Power supply AC 220-240V,50/60Hz ; AC 120V, 60Hz ; AC 220V, 60Hz
 Power consumption 22W
 External dimensions (W × H × D, including protrusions)
 445 × 132 × 357mm (17 5/8" × 5 1/4" × 14 1/8")
 Weight 15.1kg (33 3/8 lb)

Included accessories

Power cord set × 1;
 Remote control (RC-1301) × 1;
 Batteries for remote control (AAA) × 2;
 Felt pads × 3;
 Owner's manual × 1; Warranty card × 1

PROUDLY MADE IN TOKYO

ESOTERIC

ESOTERIC COMPANY

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan
 Fax: (042) 356-9240
www.esoteric.jp

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