

KD-HDMI2x4P

**CHROMA
SERIES™**

KD-HDMI2x4P is Video/Audio HDMI switcher and distribution amplifier with capability of switching and distributing 2 HDMI/HDCP/DVID (up to 1080p) Inputs up to 4 Outputs



General

- › The KD-HDMI2x4P distribution amplifier and switcher maintains pure digital and pristine picture quality from either of two (2) input sources to up to four (4) displays and audio systems
- › Switches and Distributes Video and Audio
- › User selects either Input 1 or Input 2 as the source for video and audio:
 - Video is distributed to displays over HDMI
 - Audio is distributed to the audio systems over HDMI, digital PCM, SPDIF, or analog stereo
- › Audio systems may be built-into the displays
- › Maybe a separate audio or Surround Sound systems
- › User separately selects the audio format that is output over the white [left] RCA output jacks for distribution to the audio systems, either:
 - SPDIF audio outputs (4 RCA female jacks) ^[see note 1] from the audio on the HDMI inputs (2 HDMI connectors)
 - Toslink optical audio inputs (2 Toslink connectors) converted to digital PCM audio outputs (4 RCA female jacks) ^[see note 1]
 - Digital PCM audio inputs (2 RCA female jacks) and outputs (4 RCA female jacks) ^[see note 1]
 - Analog stereo left & right audio inputs (2 RCA female jack pairs) and outputs (4 RCA female jack pairs) ^[see note 1]
- › Auto-select mode can be enabled to detect and switch to the active HDMI source input, automatically: An active source present on Input 1 is automatically switched to the outputs. If no active input is present on Input 1, then Input 2 is switched to the outputs

- › Expandable, can cascade and daisy chain multiple units to accommodate additional HDMI sources and displays
- › Up to 8 units in one room are individually addressable

Video & Audio Formats Supported

- › HDMI Video & Audio:
 - Handles ALL video frame rates
 - Handles clock rates up to 165 MHz
 - Compatible with all video resolutions, including: Up to 1080p/60
 - ALL frame rates, including the popular 60 Hz, 50 Hz, and 72 Hz refresh rates
 - Supports products with HDCP (High-bandwidth Digital Content Protection) copy protection
- › In addition to the audio provided over the HDMI link, supports a multitude of audio formats:
 - HDMI audio converted to SPDIF outputs
 - Toslink Optical audio inputs converted to digital PCM audio outputs
 - Digital PCM audio inputs and outputs
 - Analog stereo left & right audio inputs and outputs
- › All outputs are separate but carry identical video and audio signals:
 - Performs no video or audio processing

Video & Audio Input Banks

- › Two (2) HDMI Video/Audio input banks labeled "Input 1" and "Input 2" on the front panel, with the following connectors:
 - HDMI Video & Audio: HDMI Type A 19-pin connectors
- › Supports products with HDCP Copy Protection
- › To support sources with DVI-D video outputs only, use Key Digital® DVI-D adapters at the source output
- › SPDIF audio outputs provided from the audio on the HDMI inputs
- › In addition to the audio provided over the HDMI link, input options for audio sources at each of the two (2) input banks include:
 - Toslink optical audio inputs (Toslink connectors) converted to digital PCM audio outputs
 - Digital PCM audio inputs (white RCA female jacks)
 - Analog stereo left & right audio inputs (2 RCA female jack pairs: [white = left] & [red = right])
 - All audio inputs (except HDMI and Toslink) are on color-coded RCA female jacks
 - For analog stereo audio: [white = left] & [red = right]
 - For digital PCM audio, use the [white = left] RCA female jack only



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KD-HDMI2X4P



Video & Audio Output Banks

- › Four (4) HDMI Video/Audio output banks labeled "Output 1" through "Output 4" are provided on the rear panel, with the following connectors:
 - › HDMI Video & Audio: HDMI Type A 19-pin connector
 - Supports products with HDCP Copy Protection
 - To support displays with DVI-D video inputs only, use Key Digital® HDMI / DVI-D adapters at the output of the KD-HDMI2x4P and Key Digital® DVI-D cables to connect to the displays
 - SPDIF audio outputs provided from the audio on the HDMI inputs
 - › In addition to the audio provided over the HDMI link, output options at each of the four (4) output banks for audio include: Digital PCM audio outputs (white RCA female jacks) [see note 1], if digital PCM is input from a source
 - SPDIF audio outputs provided from the audio on the HDMI inputs (white RCA female jacks) [see note 1]
 - Toslink optical audio converted to digital PCM audio outputs (white RCA female jacks) [see note 1]
 - Analog stereo left & right audio inputs (2 RCA female jack pairs: [white = left] & [red = right]) [see note 1]
 - All audio outputs (except HDMI) are on color-coded RCA female jacks:
 - For analog stereo audio: [white = left] & [red = right]
 - For digital PCM audio, use the [white = left] RCA female jack only
 - While SPDIF out is generated from the HDMI audio on the selected input, and Toslink inputs are converted to wired digital PCM, the KD-HDMI2x4P does NOT perform any audio processing or further audio conversions. Hence, the various audio output options require the corresponding form of audio to be input to the unit first.

Connectors

- › Each input and the output is comprised of the following connectors:
 - HDMI: HDMI Type A 19-pin connector
 - Digital Coaxial PCM audio: 1 x RCA female, white = left jack
 - Optical audio: Toslink connector
 - Analog stereo left & right audio: RCA female (1 each color-coded left & right)
- › RS-232C: D-sub 9-pin
- › 5-pin power connector for external AC-DC power supply input
- › 3.5 mm jack for serial, wired IR input



CAUTION: No other power supply adapter can be used with this unit! Using a power supply other than the one provided by Key Digital® with your unit VOIDS THE ENTIRE PRODUCT WARRANTY, may cause damage to your unit and associated equipment, and is a potential safety hazard.

Status and Control

- › User-selectable input video source for distribution to the displays:
 - Convenient on-board pushbuttons for control, and corresponding LEDs for status
 - Pushbuttons provided on the face of the unit
 - Front- and side-mount LEDs for switching status
- › User-selectable input audio source for distribution to the audio systems:
 - Convenient front-panel pushbuttons for control, and corresponding LEDs for status
 - Pushbuttons provided on the face of the unit
 - Front-mount LEDs for audio select status
- › User-selectable or factory default display EDID for upstream source device:
 - Convenient front-panel pushbuttons for control, and corresponding LEDs for status
 - Pushbuttons provided on the face of the unit
 - Front-mounted LEDs for EDID selection status
- › HDMI hot-plug detect LEDs provided on the input HDMI connectors
- › Easy-to-operate IR remote control:
 - Separate front and rear-panel IR sensors provided (rear panel sensor is perfect for use with an IR extender, such as available from Xantech)
 - Wired IR serial connector provided [see note 2]
- › RS-232 port:
 - Compatible with all control systems, like Crestron, AMX, Elan, Control4
 - Used for Firmware upgrades [see note 3]
 - Supports CEC (Consumer Electronics Control)
- › HDMI protocol that allows HDMI devices to pass control functions along to all devices within the system
- › Each unit (up to 8 in one room) is individually addressable using the IR remote control

Mechanical

- › No fan noise
- › Product Size: 10" (L) x 4.5" (W) x 1.5" (H) (excluding mounting flanges)
- › Product Weight: 5-7 lbs. (excluding external power supply)
- › Enclosure type: Metal
- › Input power: External AC-DC power supply included
 - 5 Volt DC @ 5 Amps, 110-240 VAC, 50-60 Hz

[1] The white [left] RCA female jacks are shared among these signals for each of the four separate output bank, so only one of these audio formats [HDMI SPDIF, Toslink optical converted to digital PCM, digital PCM, or analog stereo left & right] is possible at a time. [2] Contact Key Digital® with the Serial Number of your unit to verify if your unit has the wired IR serial connector enabled. [3] Contact Key Digital® with the Serial Number of your unit to determine the correct Firmware Upgrade procedure for your unit. See our web site at www.keydigital.com for Firmware Upgrade instructions.