

4K Seamless Presentation Matrix Extender and Receiver

MPN: SW-HDSC42D4K



The KanexPro SW-HDSC42D4K 4x2 is a multi-format seamless presentation matrix switcher featuring a single extender receiver. The matrix switcher simplifies meeting room and presentation space system integration by providing four inputs (3x HDMI 1x USB-C), and two outputs, one HDMI and one Extender output featuring a mirrored HDMI loop output. It also provides external one audio input to be embedded in the first HDMI input. Moreover, it provides one MIX audio input and one MIC audio input for global audio.

The matrix switcher provides true 4K scaling up to 4K@60Hz@4:4:4. Both inputs and outputs are capable of providing 4K@60Hz@4:4:4 signals. The Extender output provides an innovative solution allowing transmission of HDMI 2.0 signals over a CATx cable while ensuring very high, original image quality. It is designed for use with the receiver. The USB-C input is ideal for AV interfacing with newer MacBook, Chromebook, and Windows PC, as well as smart phones and tablets.

The matrix switcher supports auto switching on HDMI, Extender with HDMI loop outputs based on TMDS activity signals sensing. It also allows users to control system functionality via Web GUI, RS232, IR and CEC.

The matrix switcher is designed to be the central component of AV system. It is ideal for applications where multiple signals with different resolutions must be optimized for displays. It is also suitable for presentation spaces where two displays are needed.

FEATURES

- 4x2 HDMI 2.0 seamless presentation switcher with matrix outputs
- HDMI 2.0 and HDCP 2.2 compliant. The video resolution can up to 4K@60Hz 4:4:4.
- Supports video resolution down-scaling and up-scaling, 1080P, 1920x1200P, 4K@30Hz, 4K@60Hz can be selected for HDMI and Extender outputs.
- Supports auto switching.
- Features a mirrored HDMI output for Extender output.
- Visually lossless video de-compression and compression for HDMI signals transmission up to 40m at 4K and 70m at 1080P on Extender output.
- Extender output support 24V PoC.
- One external L+R balanced audio input can be embedded in the first HDMI input.
- One MIX input and one MIC input for audio mixing.
- One L+R balanced audio output and one digital SPDIF audio output for audio de-embedding.
- MIX, MIC and output audio volume control.
- Supports ARC.
- Independent audio adjustment.
- Smart EDID management.
- Controllable via front panel buttons, RS232 local and pass-through, IR local and pass-through, TCP/IP, CEC and on OSD.
- Backed by KanexPro 3-year parts and labor warranty

SPECIFICATIONS

Matrix Switcher

• Video Input

Video Input: (3) HDMI, (1) USB-C

Video Input Connector:

(3) Type-A female HDMI, (1) Type-C USB 3.0

Video input Video Resolution:

HDMI: Up to 4Kx2K@60Hz 4:4:4 8bit

USB-C: Up to 4Kx2K@30Hz

• Video Output

Video Output:

(1) HDMI, (1) Extender with (1) HDMI loop

Video Output Connector:

(2) Type-A Female HDMI, (1) RJ45

Video output Video Resolution:

HDMI: Up to 4Kx2K@60Hz 4:4:4

Extender: Up to 4Kx2K@60Hz 4:4:4, supports 4K to 1080P down-scaling.

HDMI Version: Up to 2.0

HDCP Version: Up to 2.2

• Audio Input

Audio Input:

(1) External balanced audio (L+R) for 1.HDMI input port,

(1) Balanced MIX audio,

(1) MIC audio,

Audio Input Connector:

(2) 5-pin terminal blocks, (1) 3-pin terminal block

HDMI Input Audio Stream:

PCM 7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through.

Frequency Response: 20Hz – 20KHz, 33dB

Max Input Level: 2.0Vrms 3 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal.

L-R Level Deviation: <0.3 dB, 1KHz sine at 0dBFS level (or max level before clipping).

Input Impedance: >10KΩ

• Audio Output

Audio Output:

(1) Digital SPDIF audio, (1) Balanced audio (L+R)

Audio Output Connector:

(1) Toslink connectors, (1) 5-pin terminal block

HDMI Output Audio Stream: PCM 2.0

SPDIF/Stereo Output Audio: PCM 2.0

Frequency Response: 20Hz – 20KHz, 31dB

Max Output Level:

SPDIF: 30.05dBFS.

L+R: 2.0Vrms 3 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal.

THD+N: < 0.05% (-80dB), 20Hz – 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level)

SNR:

SPDIF: > 90dB, 20Hz-20 kHz bandwidth.

L+R: > 80dB, 20Hz - 20KHz bandwidth.

Crosstalk Isolation:

SPDIF: < -70 dB, 10KHz sine at 0dBFS level (or max level before clipping).

L+R: < -80 dB, 10KHz sine at 0dBFS level (or max level before clipping).

L-R Level Deviation:

L+R: < 0.05 dB, 1KHz sine at 0dBFS level (or max level before clipping)

Frequency Response Deviation: < 3 0.5dB 20Hz - 20KHz.

Output Load Capability:

L+R: 1Kff and higher (Supports 10x paralleled 10Kff loads).

Stereo Channel Separation: >70dB@1KHz.

Noise Level:

SPDIF: -90dB; **L+R:** -80dB

• Control Part**Control Port:**

(1) Phantom (48V) Switch, (1) IR IN, (1) IR OUT, (1) IR EYE, (1) FIRMWARE, (1) RS232, (1) TCP/IP

Control Connector:

(1) 2-pin DIP Switch, (3) 3.5mm jacks, (1) Type-A USB, (1) 3-pin terminal blocks, (1) RJ45

• General

Transmission Mode: Extender

Transmission Distance:

Extender Output:

1080P@60Hz ≤ 230 feet (70 meters),

4K@60Hz ≤ 131 feet (40 meters)

Bandwidth: 18Gbps

Operation Temperature: -5°C - +55°C

Storage Temperature: -25°C - +70°C

Relative Humidity: 10%-90%

External Power Supply:

Input: AC 100-240V, 50/60Hz; Output: 24V DC 2.71A

Power Consumption: 71W (Max)

Dimension (W*H*D): 436.4mm x 44mm x 265mm

Net Weight: 2.15KG

Extender Receiver**• Video**

Input: (1) Extender

Input Connector: (1) RJ45

Input Resolution:

Up to 4Kx2K@60Hz 4:2:0

Output: (1) HDMI

Output Connector: (1) Type-A female HDMI

Output Resolution:

Up to 4Kx2K@60Hz 4:4:4 8bit HDR10

• Audio

Input: (1) ARC Audio In

Input Connector: (1) Toslink Connector

Output: (1) Audio Breakout

Output Connector: (1) Toslink connector

Audio Format:

Supports PCM, Dolby Digital, Dolby True-HD, DTS and DTS-HD.

Frequency Response: 20Hz - 20KHz, 33dB

Max Output Level:

2.0Vrms 3 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal

THD+N:

< 0.05% (-80dB), 20Hz - 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level)

SNR: > 85dB, 20Hz-20 kHz bandwidth

Crosstalk Isolation:

> 70dB, 10KHz sine at 0dBFS level (or max level before clipping)

L-R Level Deviation:

< 0.3dB, 1KHz sine at 0dBFS level (or max level before clipping)

Frequency Response Deviation: < 3 0.5dB 20Hz - 20KHz

Output Load Capability:

1KΩ and higher (Supports 10x paralleled 10KΩ loads)

Stereo Channel Separation: >70dB@1KHz

• Control**Control Part:**

(1) ARC Mode button, (1) FW, (1) IR In, (1) IR Out, (1) RS232

Control Connector:

(1) Micro-USB port, (2) 3.5mm jacks, (1) 3-pin terminal block

• General

Bandwidth: 18Gbps

HDMI Standard: 2.0

HDCP Version: 2.2, 1.4 compliant

CEC: Pass-through

Bidirectional PoC: Supported

HDMI 2.0 Cable Length:

4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 15m, 1080P ≤ 20m

Transmission Distance:

1080P@60Hz ≤ 230 feet (70 meters),

4K@60Hz ≤ 131 feet (40 meters)

Operation Temperature: -5°C - +55°C

Storage Temperature: -25°C - +70°C

Relative Humidity: 10%-90%

Power Supply:

Input:100V-240V AC; Output:24V DC 1.25A

Power Consumption: 12W (Max)

Dimension (W*H*D): 40mm x 19.5mm x 84mm

Net Weight: 290g