HDMI 2.0 Input Card for FLEX Modular Matrix

The KanexPro FLEX-HDMI8IN is an 8-port HDMI 2.0 input card designed for the FLEX series modular matrix switcher chassis. Each port supports 18Gbps bandwidth at up to 4K 3840×2160 @60Hz 4:4:4 with HDCP 2.2/1.x content protection and full HDR pass-through. Install up to three input cards per chassis to scale from 8 to 24 HDMI source inputs.

ESD Protection — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended. Handle the card by its edges and avoid touching connector pins.

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FEATURES

- ✓ HDMI 2.0 compliant with 18Gbps bandwidth per port
- ✓ HDCP 2.2 and HDCP 1.x content protection
- ✓ Supports 4K 3840×2160 @60Hz 4:4:4 (8-bit)
- ✓ HDR pass-through for high dynamic range content
- ✓ Deep color: 8, 10, 12 bits per color
- ✓ Chroma sampling: RGB, YCbCr 4:4:4/4:2:2/4:2:0
- ✓ Audio: LPCM up to 7.1CH, Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio, DTS-X
- ✓ 8× HDMI Type A (19-pin female) input connectors
- ✓ Hot-swappable modular card design
- ✓ Up to 3 input cards per FLEX chassis (8/16/24 inputs)

PACKAGE CONTENTS

1× FLEX-HDMI8IN HDMI Input Card

Specifications

VIDEO	
HDMI Standard	HDMI 2.0
HDCP Compliance	HDCP 2.2, HDCP 1.x
Video Bandwidth	18 Gbps
Video Resolution	Up to 3840×2160 @60Hz 4:4:4 (8-bit)
Color Depth	8-bit, 10-bit, 12-bit
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
HDR	Supported (pass-through)
AUDIO	
LPCM	2.0 / 2.1 / 5.1 / 6.1 / 7.1 channel
Dolby	Dolby Digital • Dolby TrueHD • Dolby Digital Plus (DD+)
DTS	DTS-ES • DTS-HD Master Audio • DTS-HD HRA • DTS-X
CONNECTION	
Input Connectors	8× HDMI Type A (19-pin female)
Max Cards per Chassis	3 (up to 24 total HDMI inputs)
Card Interface	Proprietary backplane connector (hot-swappable)

Installation

4.1 CARD INSTALLATION

Step 1: Power down the FLEX matrix chassis (recommended, though the card supports hot-swap).

Step 2: Locate an available input card slot on the rear of the chassis. Remove the blank plate by unscrewing the two retaining screws.

Step 3: Align the FLEX-HDMI8IN card with the slot guides and firmly slide the card into the chassis until the backplane connector seats fully.

Step 4: Secure the card with the two retaining screws on the card bracket.

Step 5: Power on the chassis. The system will auto-detect the new input card and its 8 ports will appear in the routing matrix.

4.2 SOURCE CONNECTIONS

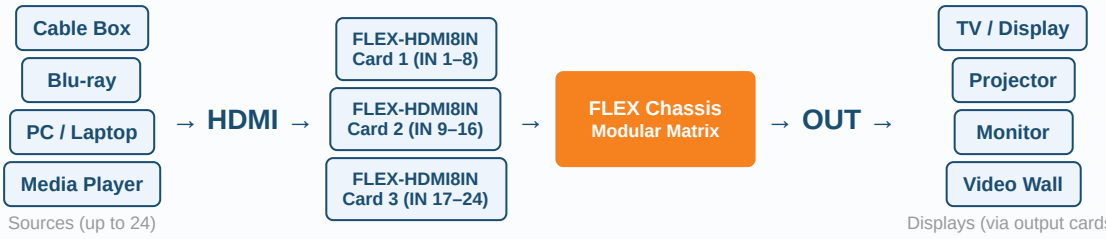
Connect HDMI source devices (cable/satellite receivers, Blu-ray players, media players, PCs, gaming consoles, cameras) to the card's HDMI input ports using Premium High Speed HDMI cables. For 4K60 signals, use cables rated for 18Gbps and keep cable length under 5 meters (16 ft). For 1080p signals, cables up to 15 meters (50 ft) are supported.

Chassis Compatibility

Chassis Model	Input Card Slots	Ports per Card	Max Inputs
FLEX-MF8X10	1	8	8
FLEX-MF16X20	2	8	16
FLEX-MF24X36	3	8	24
FLEX-MF24X60	3	8	24

Application Example

Multi-Source FLEX Matrix with HDMI Input Cards



How it works: Install one to three FLEX-HDMI8IN cards into the FLEX matrix chassis. Connect HDMI sources to the card's input ports. The matrix routes any input to any output card (HDMI or CAT) at up to 4K60 4:4:4 with HDR and multi-channel audio. Scale source capacity as your installation grows by adding more input cards.

Pair with: FLEX-HDMI12OUT (HDMI output card) or FLEX-CATRX (CAT receiver) for output distribution.

TROUBLESHOOTING

Q: No video from a connected source?

A: Verify the HDMI cable is firmly seated in both the source and the card's input port. Use Premium High Speed HDMI cables rated for 18Gbps. For 4K60, cable length must not exceed 5 meters. Check that the source is powered on and set to output HDMI.

Q: Chassis does not detect the input card?

A: Power cycle the chassis. Ensure the card is fully seated in the slot and the backplane connector is engaged. Reseat the card if necessary. Verify the chassis firmware is up to date.

Q: HDCP errors or blank screen with protected content?

A: Ensure the entire signal chain (source → input card → matrix → output card → display) supports HDCP 2.2. If one device in the chain supports only HDCP 1.x, the source may downgrade or block output. Update display firmware if necessary.