

Genesis XD

Multimedia Matrix Switch for 4K UHD and Beyond



GXD Series Features

- HDMI units extend HDMI 1.4b (true HDCP) and support HEAC (HDMI / Ethernet / Audio Return Channel / Control)
- Supports legacy VGA and Component devices
- Supports remote KVM with USB-HID (for keyboard / mouse)
- Supports embedded/de-embedded break-away and switching of Stereo Analog Audio and S/PDIF Digital Audio
- Supports control via CEC, IR, bidirectional RS-232, and 10/100/1000 Ethernet
- Remote distribution options to include Fiber, CATx/ HDBaseT and IP cabling
- Fiber cards support 10.3 Gbps optics: multimode fiber up to 0.3 km or singlemode fiber up to 10 km
- CATx (HDBaseT) cards support up to 100 m
- Future support for video over IP / Ethernet cards support H.264 encoding / decoding

Applications

- Digital Signage / Remote Kiosks
- Command & Control
- Live Events
- Video Conferencing
- Houses of Worship
- Sports Venues
- Auditoriums

Cross-point Matrix Switch for 4K UHD and Beyond

EMCORE's Genesis XD ("GXD") is an all-in-one multimedia matrix solution that converts, scales, switches and transports uncompressed video, audio and data from small to large systems. GXD's massive 40 Gbps backplane accommodates uncompressed 4K UHD resolutions now and 8K resolutions later, allowing it to serve as a staple for Installers that want a flexible and reliable connectivity platform.

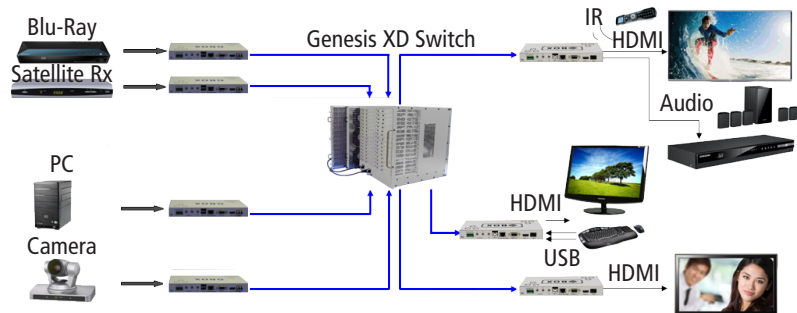
GXD is a non-blocking, full cross-point matrix switch that accepts and converts both analog and digital video signals, including HDMI 1.4b with HDCP (known as HEAC - HDMI, Ethernet, Audio, Control), Display Port, DVI, VGA, Component and 3G HD-SDI. Remote locations can be connected using multimode and singlemode fiber or CATx using HDBaseT technology. GXD can be controlled via RS-232, Ethernet (locally or remotely through the G-Box) or by front panel touch screen. The front panel touch screen also serves as a video monitor to preview any connected video source.

A notable feature of Genesis XD is the ability to break-away and switch audio separately for professional audio editing and processing requirements. GXD also embeds digital S/PDIF or stereo analog audio inputs into HDMI and 3G HD-SDI signals, as well as, de-embeds audio from those same digital signals.

Genesis XD is a modular system, expandable by using GXD insert cards to populate the chassis as the system grows. For remote connections the GBox series, stand-alone flange mount box is utilized on the far end of the distribution system.

GXD allows any source to seamlessly connect to one or many displays for continuous, trouble-free operation in critical applications.

Point-to-Multipoint Applications



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Models

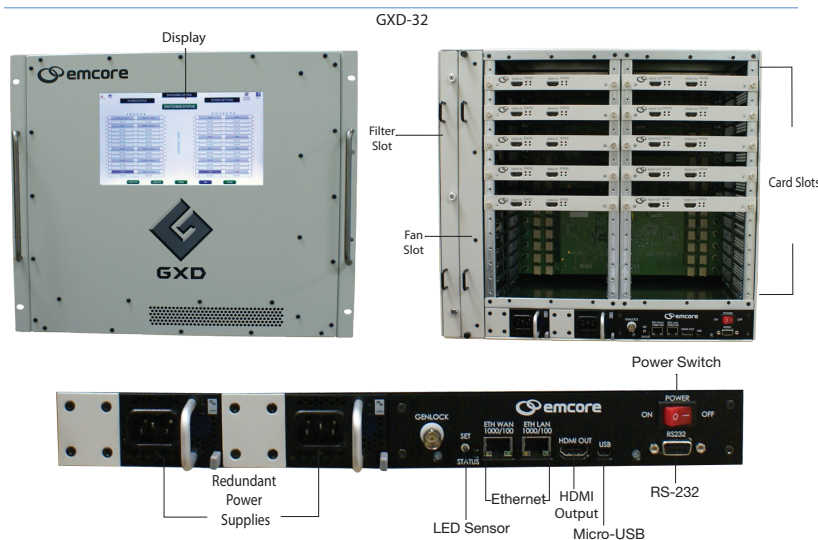
Chassis Frame Models	Description
GXD-8	8x8 Modular Matrix Chassis with redundant power supply (does not include I/O cards)
GXD-16	16x16 Modular Matrix Chassis with redundant power supply (does not include I/O cards)
GXD-32	32x32 Modular Matrix Chassis with redundant power supply (does not include I/O cards)
GXD-PS	Spare power supply for Genesis Matrix Chassis

■ see each individual datasheet for more detailed specifications

Insert Card Options	Description
GXD-2DV4AI-I	2 ch. DVI-I with 4 ch. audio Input Card
GXD-2DV4AO-O	2 ch. DVI-I with 4 ch. audio Output Card
GXD-2DP4A-USB-I	2 ch. Display Port 1.2 with 4 ch. audio with USB Input Card
GXD-2DP4A-USB-O	2 ch. Display Port 1.2 with 4 ch. audio with USB Output Card
GXD-2HDMI-I	2 ch. HDMI 1.4b with HDCP v1.2 Input Card
GXD-2HDMI-O	2 ch. HDMI 1.4b with HDCP v1.2 Output Card
GXD-2-3GHD-I	2 ch. 3G HD-SDI Input Card
GXD-2-3GHD-O	2 ch. 3G HD-SDI Output Card
GXD-8A-I	8 ch. Analog Audio Stereo Balanced Input Card
GXD-8A-O	8 ch. Analog Audio Stereo Balanced Output Card
GXD-2F-SM-2LC-I	2 Port Optical Input Card, 10.3 Gbps, SM, 1310nm SFP+, Dual LC connectors per port
GXD-2F-SM-2LC-O	2 Port Optical Output Card, 10.3 Gbps, SM, 1310nm SFP+, Dual LC connectors per port
GXD-2F-SM-1LC-I	2 Port Optical Input Card, 10.3 Gbps, SM, 1270/1310nm SFP+, Single LC connector per port
GXD-2F-SM-1LC-O	2 Port Optical Output Card, 10.3 Gbps, SM, 1310/1270nm SFP+, Single LC connector per port
GXD-2F-MM-2LC-I	2 Port Optical Input Card, 10.3 Gbps, MM, 850nm SFP+, Dual LC connectors per port
GXD-2F-MM-2LC-O	2 Port Optical Output Card, 10.3 Gbps, MM, 850nm SFP+, Dual LC connectors per port
GXD-2-CATx-I	2 CAT5/6/HDBaseT Ports, Single RJ-45 connector per port, Input Card
GXD-2-CATx-O	2 CAT5/6/HDBaseT Ports, Single RJ-45 connector per port, Output Card

■ see each individual datasheet for more detailed specifications

Connection Diagram



Video

Specifications	Values
Inputs/Outputs	DVI, HDMI 1.4b, 3G HD-SDI, Display Port, VGA, Component
HDCP Compliance	V1.2
EDID	Plug & Play
Color Depth	24-bit
Resolutions Supported	HD up to 1080p, 4K/UHD up to 3840x2160/30Hz

Audio

Specifications	Values
Audio Inputs	Uni-directional (TX to RX) 2 ch. Stereo Analog Audio
Audio Outputs	2 ch. Stereo Analog Audio

Data & Control

Specifications	Values
USB	USB-HID, USB 2.0 optional
USB Connector	TX: 1x USB type B RX: 2x USB type A
IRD	Uni-directional IR
IR connector	3.5mm
RS-232 connector	Terminal block
Ethernet	10/100

General

Specifications	Values
Dimensions (32x32)	19" W x 15.75" H x 15.75" D
Weight (32x32)	40 lbs
Operating Temperature	0° to +50°C
Storage Temperature	-30°C to +85°C
Humidity	0 to 95% (non-condensing)
Power Consumption	300 Watts
Power Supply Voltage	12V, 600W Max
RU Size	GXD-32: 9RU GXD-64: 17RU
Warranty	3 Years

