Enova® DGX 4K60 4:4:4 HDMI Output Board

DGX-O-HDMI-4K60 (FG1061-552)

Overview

The DGX-I-HDMI-4K60 is a 4K60 4:4:4 output board for 4K 60 4:4:4 compatible* Enova DGX 800, Enova DGX 1600, Enova DGX 3200, and Enova DGX 6400. The board is Ultra High Definition (UHD) capable and HDCP 2.2 compliant, with support for 4:4:4 color space and High Dynamic Range (HDR) for optimum image quality and full bandwidth, pixel-for-pixel image reproduction. It has four connections and supports HDMI with embedded audio (including support for Dolby Atmos®), DisplayPort++ or DVI signals.

Common Applications

The Enova DGX HDMI Output Board is ideal for applications where display devices are located within 15 meters of the Enova DGX Digital Media Switcher, providing 4K60 4:4:4 HDMI routing for video wall processors, divisible rooms, and more without the need for external receivers.

Features

- **4K60 4:4:4 Support** – Experience pixel-for-pixel video reproduction with full bandwidth 4K60 images without chroma subsampling.
- **HDCP 2.2 Support with InstaGate Pro® Technology** – Support the latest entertainment devices and enjoy hassle-free matrix switching to all compliant displays.
- **High Dynamic Range (HDR)** – Dramatically improve the viewing experience with broader color range for improved clarity.
- **Hot Swappable** – Easily add or replace I/O boards at any time after deployment - the system automatically recognizes the new configuration and activates the boards.
- **Surround Sound Support** – Pass through high definition surround sound including Dolby Atmos, Dolby TrueHD, Dolby Digital, Dolby Digital Plus, DTS-HD Master Audio, DTS, and 2-channel through 8-channel L-PCM.

Specifications

GENERAL	
Compatible AMX Products	Supported enclosures are Enova DGX 800, 1600, 3200 or 6400 Digital Media Enclosure built after June 1, 2016.
Regulatory Compliance	See Enova DGX Digital Media Switcher Enclosure for regulatory compliance

HDMI w/HDCP	DESCRIPTION
Compatible Formats	HDMI 1.X, HDMI 2.0, HDCP, HDCP 1.X, HDCP 2.2, DVI
Signal Type Support	HDMI, DisplayPort++ DVI-D (Single Link With HDMI Cable Adapter)
Video Data Rate (Max)	When used with compatible Enova DGX 100 series enclosures*: 18 Gbps (Max)
Video Pixel Clock (Max)	When used with compatible Enova DGX 100 series enclosures*: Up to 600 Mhz
Progressive Resolution Support	When used with compatible Enova DGX 100 series enclosures* 480p up to 4096x2160@ 60 Hz 4:4:4 including 3840x2160 @ 60 4:4:4
4K Resolution Support (Max)	When used with compatible Enova DGX 100 series enclosures*: 3840x2160p@24/25/30/60 Hz, 4:4:4 4096x2160p@24/25/30/60 Hz, 4:4:4 3840x2160p@50/60 Hz, 4:2:0 4096x2160p@50/60 Hz, 4:2:0
HDMI Cable Requirement	Premium Certified High Speed Cable Category 2, Recommended. HDMI High Speed Cable Category 2, Required
Output Re-clocking	Yes
Output Scaling	None
Deep Color Support	24-bit, 30-bit**, 36-bit** Output signal follows input format **30-bit and 36-bit are only supported in CTA-861 formats.
HDR Support	Yes HDR10 Output signal follows input format
Color Space Support	sRGB, BT601, BT.709, BT.220 RGB 4:4:4; YCbCr 4:4:4 and 4:2:2 and 4:2:0 Output signal follows input format
3D Format Support	Yes (HDMI Primary Formats) Frame Packing 1080p up to 24 Hz Frame Packing 720p up to 50/60 Hz Frame Packing 1080i up to 50/60 Hz Top-Bottom 1080p up to 24 Hz Top-Bottom 720p up to 50/60 Hz Side-by-Side Half 1080i up to 50/60 Hz
Audio Format Support	Dolby Atmos, Dolby TrueHD, Dolby Digital, DTS-HD Master Audio, DTS, 2 CH through 8 CH L-PCM
Audio Resolution	16 bit to 24 bit
Audio Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192kHz
Local Audio Support	Yes, Insertion of 2 CH L-PCM selectable by channel
DDC/EDID Support	Outputs can copy and save connected display EDID for use on Inputs as Custom EDIDs
HDCP Support	Yes, including HDCP 1.x and HDCP 2.x for full matrix HDCP support (includes any input to any or all outputs)

	HDCP 2.2 support required by input/output board for passage of HDCP 2.2 premium content Key Management System AMX HDCP InstaGate Pro™ Technology Key support up to max 31 devices downstream on one output
CEC Support	None
Output +5V DDC Pin	200mA max per output port
Connectors	4 HDMI Type A Female Ports
HDMI Output Board Propagation Delay	5 us
HDMI Audio Synchronization (Embedded Audio Mode)	Audio lags video by 1 ms
HDMI Audio Synchronization (Switched Audio Mode)	Audio lags video by 33ms default – Adjustable down to 1 ms lag
Audio Switching Board Support	Supports break-away audio switching of 2 CH L-PCM for all channels

* Compatible Enova DGX 100 Series Enclosures are those Enova DGX 800, 1600, 3200 or 6400 enclosures built on or after June 1, 2016.