

Enova® DGX HDMI Output Board

DGX-O-HDMI (FG1058-550)



Overview

The DGX-O-HDMI is a HDCP compliant HDMI output board for the Enova DGX 8, Enova DGX 16, Enova DGX 32 and Enova DGX 64. It has four connections and supports HDMI or DVI signals. The DGX-O-HDMI features SmartScale® Technology which outputs video that is perfectly scaled for each connected display, eliminating the integration challenges that can occur when sources and displays have different optimal resolutions.

Common Applications

The Enova DGX HDMI Output Board is ideal for applications where destinations are located within 15 meters of the Enova DGX Digital Media Switcher, eliminating the need for external receivers. Integrated SmartScale Technology provides optimal display resolution for each connected display.

Features

- **InstaGate Pro® Technology** – Easily integrate HDMI/HDCP into system designs and enjoy hassle-free matrix switching to all compliant displays. No tools, no delays, and no key constraints – it just works
- **SmartScale Technology** – Automatically responds to the display's declared EDID information and scales the video to the best resolution and video parameters for that display without manual setup; this prevents inferior video quality when sources are forced to lower resolutions to support the least capable display in the system
- **Hot Swappable Video Input / Output Boards** – 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 TrueHD, Dolby Digital, DTS-HD Master Audio, DTS, and 2-channel through 8-channel L-PCM

Specifications

GENERAL	
Recommended Accessories	•CBL-HDMI-FL HDMI High Speed Flat Cable with RedMere Technology (FG10-2180-16)

HDMI w/HDCP	Description
Compatible Formats	HDMI, HDCP, DVI
Signal Type Support	HDMI DVI-D (Single Link With HDMI Cable Adapter)
Video Data Rate (Max)	4.95 Gbps / 6.75 Gbps 6.75 Gbps supported when the HDMI Output Scaler or DXLink RX Scaler is in Bypass mode and format is 1080p60 or less
Video Pixel Clock (Max)	165 MHz / 225 MHz 225 MHz supported when the HDMI Output Scaler or DXLink RX Scaler is in Bypass mode and format is 1080p60 or less
Progressive Resolution Support	480p up to 1920x1200 @ 60 Hz If input is interlaced, all scaled outputs will deinterlace video to a progressive resolution format. If in scaler Bypass mode interlaced input will pass through unaltered
2K Resolution Support	2048x1024 @ 47Hz, 2048x1080 @ 60Hz, 2048x1152 @ 60Hz, 2048x1536 @ 24Hz 2K formats are only compatible with the DVI and HDMI Input/Output boards and require the output scaler to be set in Bypass mode
Output Re-clocking	Yes
Output Scaling	SmartScale, or optional manual configuration, or optional Bypass
SmartScale Output Resolution Support	All resolutions between 480p and 1920 x 1200 @ 60 Hz via automatic SmartScale query of the display's declared EDID Detailed Timing Definition
Deep Color Support	24-bit, 30-bit, 36-bit 30-bit and 36-bit supported when the HDMI Output Scaler or DXLink Rx Scaler is in Bypass mode and format is 1080p60 or less
Color Space Support	RGB 4:4:4; YCbCr 4:4:4 and 4:2:2 Input signal support for YCbCr 4:4:4 and 4:2:2, output color-space is converted to RGB 4:4:4
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 3D supported when the HDMI Output Scaler or DXLink RX Scaler is in Bypass mode and format is 1080p60 or less
Audio Format Support	Dolby TrueHD, Dolby Digital, DTS-HD Master Audio, DTS, 2 CH through 8 CH L-PCM Dolby Digital and DTS support up to 48 kHz, 5.1 channels
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 and/or Extraction of 2 CH L-PCM selectable by channel

DDC/EDID Support	EDID provided by Enova DGX 8/16/32/64 EDID is user re-programmable
HDCP Support	Yes, full matrix HDCP support (includes any input to any or all outputs) Key Management System AMX HDCP InstaGate Pro™ Technology Key support up to 16 devices per output, independent of source device
CEC Support	None
Output Voltage (Nominal)	1.0 Vpp Differential
Output Rise Time / Fall Time	100 ps min - 200 ps max (20% - 80%) 0.16 UI min - 0.33 UI max (@ 1.65 Gbps, 20% - 80%)
Output +5V DDC Pin	50mA max per output port
Connectors	4 HDMI Type A Female Ports
HDMI Output Board Propagation Delay	24 ms for progressive, 48 ms for interlace, 5 us when in Bypass mode
HDMI Audio Synchronization	Progressive and Interlace Video Formats @ 60Hz frame rate: Audio is actively delayed to match video within 8ms leading or lagging

About AMX

AMX hardware and software solutions simplify the implementation, maintenance, and use of technology to create effective environments. With the increasing number of technologies and operating platforms at work and home, AMX solves the complexity of managing this technology with reliable, consistent and scalable systems. Our award-winning products span control and automation, system-wide switching and audio/video signal distribution, digital signage and technology management. They are implemented worldwide in conference rooms, homes, classrooms, network operation / command centers, hotels, entertainment venues, broadcast facilities, and more. ©2014 AMX. All rights reserved.

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