

Enova® DGX HDMI Input Board

AVS-ENOVDGX32-VI-HDMI (FG1058-540)



Overview

The AVS-ENOVDGX32-VI-HDMI is a HDCP compliant HDMI input board for the Enova DGX 8, Enova DGX 16, Enova DGX 32 and Enova DGX 64. It has four connections and supports HDMI with embedded audio, DisplayPort++ or DVI signals.

Common Applications

The Enova DGX HDMI Input Board is ideal for applications where source devices are located within 15 meters of the Enova DGX Digital Media Switcher, allowing direct digital inputs into the system and eliminating the need for external transmitters.

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
- **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
- **3D Support** – Pass through latest video formats including 3D and Deep Color
- **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

HDMI w/HDCP	
Compatible Formats	HDMI, HDCP, DVI
Signal Type Support	HDMI DVI-D (Single Link With HDMI Cable Adapter) DisplayPort ++ (Input Only, With HDMI Cable Adapter)

Video Data Rate (Max)	4.95 Gbps / 6.75 Gbps 6.75 Gbps supported when the HDMI Output Board Scaler or DXLink HDMI 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 Board Scaler or DXLink HDMI RX Scaler is in Bypass mode and format is 1080p60 or less
Progressive Resolution Support	480p up to 1920x1200 @ 60 Hz
Interlaced Resolution Support	480i, 576i, 1080i 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 @ 47 Hz, 2048x1080 @ 60 Hz, 2048x1152 @ 60 Hz, 2048x1536 @ 24 Hz Note: 2K formats are only compatible with the DVI and HDMI Input/Output boards and require the output scaler to be set in Bypass mode
Input Equalization	Yes, Adaptive up to 100ft (30m) at 225MHz Cable distance support dependent on cable type and signal format
Input Re-clocking (CDR)	Yes
Deep Color Support	24-bit, 30-bit, 36-bit 30-bit, 36-bit supported when the HDMI Output Board Scaler or DXLink HDMI 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 24Hz Frame Packing 720p up to 50/60Hz Frame Packing 1080i up to 50/60Hz Top-Bottom 1080p up to 24Hz Top-Bottom 720p up to 50/60Hz Side-by-Side Half 1080i up to 50/60Hz 3D supported when the HDMI Output Board Scaler or DXLink HDMI 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 48kHz, 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
Input Voltage (Nominal)	1.0 Vpp Differential
Connectors	4 HDMI Type A Female Ports
HDMI Input Board Propagation Delay	2 us
HDMI Audio Synchronization	Progressive and Interlace Video Formats @ 60Hz frame rate: Audio is actively delayed to match video within 8ms leading or lagging

EDID – FACTORY LOADED ¹	
Standard Timing Identification	1920 x 1080 @60Hz (this is the preferred format DTD identified in the EDID) 1920 x 1200 @60 Hz 1680 x 1050 @60 Hz 1600 x 1200 @60 Hz 1600 x 900 @60 Hz 1400 x 1050 @60 Hz 1440 x 900 @60 Hz 1360 x 765 @60 Hz 1280 x 1024 @60 Hz 1280 x 900 @60 Hz 1280 x 800 @60 Hz 1280 x 720 @60 Hz
Established Timing	1280 x 1024 @ 75 Hz 1152 x 870 @ 75 Hz 1024 x 768 @ 60 Hz, 70 Hz, 75 Hz, 87 Hz 832 x 624 @ 75 Hz 800 x 600 @ 56 Hz, 60 Hz, 72 Hz, 75 Hz 720 x 400 @ 70 Hz, 88 Hz 640 x 480 @ 60 Hz, 67 Hz, 72 Hz, 75 Hz
CEA Video Information Code (VIC) Formats	VIC = 1, 640 x 480 p 59.94/60 Hz 4:3 VIC = 2, 720 x 480 p 59.94/60 Hz 4:3 VIC = 3, 720 x 480 p 59.94/60 Hz 16:9 VIC = 4, 1280 x 720 p 59.94/60 Hz 16:9 VIC = 5, 1920 x 1080 i 59.94/60 Hz 16:9 VIC = 6, 720(1440) x 480 i 59.94/60 Hz 4:3 VIC = 7, 720(1440) x 480 i 59.94/60 Hz 16:9 VIC = 14, 1440 x 480 p 59.94/60 Hz 4:3 VIC = 15, 1440 x 480 p 59.94/60 Hz 16:9 VIC = 16, Native 1920 x 1080 p 59.94/60 Hz 16:9 VIC = 17, 720 x 576 p 50 Hz 4:3 VIC = 18, 720 x 576 p 50 Hz 16:9 VIC = 19, 1280 x 720 p 50 Hz 16:9 VIC = 20, 1920 x 1080 i 50 Hz 16:9 VIC = 21, 720(1440) x 576 i 50 Hz 4:3 VIC = 22, 720(1440) x 576 i 50 Hz 16:9 VIC = 29, 1440 x 576 p 50 Hz 4:3 VIC = 30, 1440 x 576 p 50 Hz 16:9 VIC = 30, 1440 x 576 p 50 Hz 16:9 VIC = 31, 1920 x 1080 p 50 Hz 16:9 VIC = 32, 1920 x 1080 p 23.97/24 Hz 16:9 VIC = 33, 1920 x 1080 p 25 Hz 16:9 VIC = 34, 1920 x 1080 p 29.97/30 Hz 16:9 VIC = 39, 1920 x 1080 i 50 Hz 16:9 VIC = 41, 1280 x 720 p 100 Hz 16:9 VIC = 42, 720 x 576 p 100 Hz 4:3 VIC = 43, 720 x 576 p 100 Hz 16:9 VIC = 44, 720(1440) x 576 i 100 Hz 4:3 VIC = 45, 720(1440) x 576 i 100 Hz 16:9 VIC = 47, 1280 x 720 p 119.88/120 Hz 16:9 VIC = 48, 720 x 480 p 119.88/120 Hz 4:3 VIC = 49, 720 x 480 p 119.88/120 Hz 16:9
Audio Data Block	Basic Audio: 2 Channel L-PCM 32, 44.1, 48 kHz Sampling Frequency at 16, 20 or 24 bits per sample

¹ The default EDID can be overwritten to include a broad range of features, including HDMI mode, based on installation requirements

GENERAL	
Recommended Accessories	•AVB-TX-MULTI-DXLINK DXLink Multi-Format Transmitter (FG1010-310) •AVB-WP-TX-MULTI-DXLINK DXLink Multi-Format Wallplate Transmitters (FG1010-320-BL/WH) •CBL-HDMI-FL HDMI High Speed Flat Cable with RedMere Technology (FG10-2180-16)

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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AMX.com | 800.222.0193 | 469.624.8000 | +1.469.624.7400 | fax 469.624.7153