Enova® DGX 4K60 4:4:4 HDMI Input Board
DGX-I-HDMI-4K60 (FG1061-542)

Overview
The DGX-I-HDMI-4K60 is a 4K60 4:4:4 input board for 4K 60 4:4:4 compatible* Enova DGX 800, Enova DGX 1600, Enova DGX 3200, and Enova DGX 6400 enclosures. The board is Ultra High Definition (UHD) capable and HDCP 2.2 compliant, with support for full 4K60 4:4:4 video and High Dynamic Range (HDR) for optimum image quality and full bandwidth, pixel-for-pixel image reproduction without compression or chroma subsampling. 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 Input Board is ideal for applications where source devices are located within 7 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 transmitters.

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Compatible AMX Products</td>
<td>Supported enclosures are Enova DGX 800, 1600, 3200 or 6400 Digital Media Enclosure built after June 1, 2016</td>
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<tr>
<td>Regulatory Compliance</td>
<td>See Enova DGX Digital Media Switcher Enclosure for regulatory compliance</td>
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### HDMI w/HDCP

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>Compatible Formats</td>
<td>HDMI 1.X, HDMI 2.0, HDCP, HDCP 1.X, HDCP 2.2, DVI</td>
</tr>
<tr>
<td>Signal Type Support</td>
<td>HDMI, DisplayPort++ (Input Only) DVI-D (Single Link With HDMI Cable Adapter)</td>
</tr>
<tr>
<td>Video Data Rate (Max)</td>
<td>When used with compatible Enova DGX 100 series enclosures*: 18 Gbps (Max)</td>
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<tr>
<td>Video Pixel Clock (Max)</td>
<td>When used with compatible Enova DGX 100 series enclosures*: Up to 600 Mhz</td>
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<tr>
<td>Progressive Resolution Support</td>
<td>When used with compatible Enova DGX 100 series enclosures*</td>
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<tr>
<td>Interlaced Resolution Support</td>
<td>480i, 576i, 1080i</td>
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<tr>
<td>4K Resolution Support (Max)</td>
<td>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** ** Supported by DX-RX-4K when in Bypass Scaling mode.</td>
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<tr>
<td>HDMI Cable Requirement</td>
<td>Premium Certified High Speed Cable Category 2, Recommended. HDMI High Speed Cable Category 2, Required</td>
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<tr>
<td>Input Equalization</td>
<td>Adaptive up to 21ft (7m). Cable distance support dependent on cable quality and signal format</td>
</tr>
<tr>
<td>Input Re-clocking (CDR)</td>
<td>Yes</td>
</tr>
<tr>
<td>Deep Color Support</td>
<td>24-bit, 30-bit***, 36-bit**** ***30-bit and 36 bit are only supported in CTA-861 formats. When switched to an output board or RX with Scaling support the Scaler must be in Bypass mode.</td>
</tr>
<tr>
<td>HDR Support</td>
<td>Yes HDR10 Output signal follows input format Note: Requires the use of HDR compatible output board such as 4K60 HDMI Output Board</td>
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<tr>
<td>Color Space Support</td>
<td>sRGB, BT.601, BT.709, BT.2020 RGB 4:4:4 , YCbCr 4:4:4, 4:2:2, and 4:2:0 • Input signal support for YCbCr 4:4:4 and 4:2:2, output color-space is converted to RGB 4:4:4 on scaled output • Output signal follows input format on non-scaled output boards • If 4:2:0 is switched to a 4K RX the RX scaler must be set to bypass</td>
</tr>
<tr>
<td>3D Format Support</td>
<td>• Frame Packing 1080p up to 24 Hz • Frame Packing 720P up to 50/60 Hz • Frame Packing 1080i up to 50/60 Hz</td>
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</table>
**Audio Format Support**
- Dolby Atmos, Dolby TrueHD, Dolby Digital, Dolby Digital Plus, 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, 192 kHz

**Local Audio Support**
- Yes, extraction of 2 CH L-PCM selectable by channel

**Audio Switching Board Support**
- Supports break-away audio switching of 2 CH L-PCM for all channels
- Supports down-mix from one input channel of Dolby True-HD, Dolby Digital, DTS-HD, DTS, or 2 to 8 channel L-PCM

**DDC/EDID Support**
- EDID provided by Enova DGX Digital Media Switcher to the digital (HDMI) port input and includes presets
- EDID is user re-programmable

**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 31 devices per output

**CEC Support**
- None

**Input Propagation Delay**
- 5 us

**Connectors**
- 4 HDMI Type A Female Ports

### 4K HDMI INPUT DEFAULT SHIPPING EDID¹

**Detailed Timing Descriptors (DTD)**
- 3840x2160p @ 30 Hz CTA (VIC 95)
- 1920x1080p @ 60 Hz CTA (VIC 16)
- 1920x1080p @ 50 Hz CTA (VIC 31)
- 1920x1200 @ 50 Hz CVR
- 1920x1200 @ 60 Hz CVR

¹This is the preferred format DTD identified in the EDID.

**Note:** The default EDID can be configured to include support for 4K 60 4:4:4, HDMI mode or audio capabilities or overwritten with custom EDID capture from output devices

**Standard Timing Identification**
- 1920x1200 @ 60 Hz
- 1680x1050 @ 60 Hz
- 1600x1200 @ 60 Hz
- 1440x900 @ 60 Hz
- 1360x765 @ 60 Hz
- 1280x1024 @ 60 Hz
- 1280x800 @ 60 Hz
- 1280x720 @ 60 Hz

**Established Timing**
- 1280x1024 @ 75 Hz
- 1152x870 @ 75 Hz
- 1024x768 @ 60 Hz, 70 Hz, 75 Hz, 87 Hz
- 832x624 @ 75 Hz
About AMX by HARMAN
Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. Revised 5.10.2017. ©2017 Harman. All rights reserved. Specifications subject to change.

www.amx.com | +1.469.624.7400 | 800.222.0193