

Enova® DGX DXLink™ Twisted Pair Output Board

AVS-ENOVADGX32-VO-DXLink (FG1058-580)



Overview

The AVS-ENOVADGX32-VO-DXLINK is a HDCP compliant twisted pair cable output board for the Enova DGX 16 and Enova DGX 32. It has four connections per DXLink Output Board and is designed to transmit audio and video to DXLink Receivers while passing bi-directional control and Ethernet over one standard twisted pair cable up to 100m. DXLink Power is available from the DXLink Output Board to power DXLink Receivers.

Common Applications

The Enova DGX DXLink Twisted Pair Output Board is ideal for applications where destination devices are located up to 100 meters away from the Enova DGX Digital Media Switcher and need to be distributed throughout a commercial or residential environment.

Features

- **Only One Cable** – Send audio and video while passing control, Ethernet and power over one twisted pair cable
- **Send HDMI signals up to 100 Meters** – Extend the reach of the HDMI with HDCP signals far beyond the capabilities of typical HDMI cabling
- **Standard Twisted Pair Cable** – Save time and effort in installation by leveraging pre-existing cost effective twisted pair cable, see the [Cabling for Success with DXLink](#) white paper for more details
- **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
- **HDCP Compliant**

Additional Features

- **Remotely Powered Receivers** - DXLink Power is available from the DXLink Output Board to power DXLink Receivers
- **3D Support*** - Pass through latest video formats including 3D and Deep Color
- **Surround Sound Support** - Pass through high definition surround sound including Dolby Digital, DTS and up to 8-channel L-PCM at 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz

*This feature will be available upon release of a future firmware update

Specifications

Signal Transport – DXLink w/HDCP	Description
Compatible Formats	HDMI Video / Audio / Ethernet / Power and Control
Future Compatible Formats	USB (HID) Keyboard & Mouse *
Signal Type Support	DXLink
DXLink Power	<p>DxLink RX units can have power supplied over twisted pair cable when connected to a DXLink Input or Output board of the Enova DGX Digital Media Switcher</p> <p>Use the Enova DGX Configuration Tool located at AMX.com/enova to determine the power requirements of a configuration and whether any of the DXLink Transmitters or Receivers should be powered with the local power supply. The configuration tool contains instructions on how to determine power requirements.</p>
Connectors	(4) RJ-45 Ports
Transport Layer Throughput (Max)	10.2 Gbps
Twisted Pair Cable Type	Cat5e, Cat6/6e, Cat6A, Cat7 of UTP, SF/UTP, S/FTP, and F/UTP varieties**
Twisted Pair Cable Length	Up to 328 ft (100 m) **
Video Data Rate (Max)	<p>4.95 Gbps / 6.75 Gbps</p> <p>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</p>
Video Pixel Clock (Max)	<p>165 MHz / 225 MHz</p> <p>225 MHz supported when the HDMI Output Board Scaler or DXLink HDMI RX Scaler is in Bypass mode and format is 1080p60 or less</p>
Progressive Resolution Support	480p up to 1920x1200 @ 60 Hz
Deep Color Support*	<p>24-bit, 30-bit, 36-bit</p> <p>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</p>
Color Space Support	<p>RGB 4:4:4</p> <p>YCbCr 4:4:4 and 4:2:2</p> <p>Input signal support for YCbCr 4:4:4 and 4:2:2, output color-space is converted to RGB 4:4:4</p>
3D Format Support*	<p>Yes (HDMI Primary Formats, when used with DXLink Output Boards and the DXLink HDMI RX Scaler is in Bypass mode)</p> <p>Frame Packing 1080p up to 24 Hz</p> <p>Frame Packing 720p up to 50/60 Hz</p> <p>Frame Packing 1080i up to 50/60 Hz</p> <p>Top-Bottom 1080p up to 24 Hz</p> <p>Top-Bottom 720p up to 50/60 Hz</p>

	Side-by-Side Half 1080p up to 50/60 Hz Side-by-Side Half 720p up to 50/60 Hz
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 when used in conjunction with the Enova DGX Audio Insert / Extract Board
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
ICSP, TCP/IP, USB, IR, Control Management	Control distribution is managed by the Enova DGX 16/32 Digital Media Switcher on-board NetLinx Master and Ethernet Switch
Approvals	CE, FCC Class A, UL, cUL, RoHS / WEEE compliant

*This feature will be available upon release of a future firmware update

** Cable runs with a minimum specification of ANSI/TIE/EIA 568A-5 and ratings of 250MHz or better may be used with DXLink equipment. However, cable run topology and environmental influences can affect the overall successful distance capabilities of these runs. For successful deployments up to 100 meters without consideration to outside variables, AMX recommends the use of shielded category cable (STP) or Cat6A (or better) versions of unshielded or shielded twisted pair (UTP/STP) for DXLink runs. For more details and helpful cabling information, please contact your AMX representative for a copy of the white paper titled "Cabling for Success with DXLink".

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. ©2012 AMX. All rights reserved.

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