

# Epica® DGX 288 Single Mode Fiber Input/Output Board, Simplex

EPICADGX288-VIO-SMF-S (FG1055-520)

## Overview

The EPICADGX288-VIO-SMF-S is a Simplex Single Mode Fiber Input/Output Board designed for use with the Epica 288 Fiber Matrix Switcher. Each board contains 16 connections, and each connection is both an input and an output connection. Thus, each board is a full 16x16 configuration.

Compatible with DXLink Multi-Format Simplex Transmitters and DXLink HDMI Simplex Receivers, the board can also receive and send signals from or to any Enova DGX system utilizing simplex fiber boards. This makes the Epica DGX 288 the ideal solution for very large infrastructures that require multiple systems that are directed to a central hub for wider distribution.

Pass crystal clear, high resolution video with zero compression, along with audio. Compatible DXLink Fiber Receivers feature SmartScale® Technology which automatically responds to the display's declared EDID information, scales the video resolution, and adjusts the video parameters to match the display's native format. SmartScale Technology ensures every display operates at its preferred resolution and eliminates the incompatibilities that can arise in matrix switching systems when the output resolution of the source is not supported by some or all of the displays in the system.

## Specifications

GENERAL	
Signal Type Support	DXLink Single Mode Fiber, Simplex (Connectivity between TX and Input Connection and Output Connection and RX requires matching model types, multimode to multimode or single mode to single mode. The backplane architecture of the Epica DGX 288 allows for single mode inputs to be routed to multimode outputs and vice versa)
Compatible AMX Products	Must be used in conjunction with an Epica 288 Matrix Switcher Enclosure and a DXLink Simplex Single Mode Fiber Transmitter and/or Receiver including DXF-TX-SMS (FG1010-361) and DXF-RX-SMS (FG1010-561)

	Note: Can be used in conjunction with Duplex Transmitters and Receivers, however the system will maintain one-way simplex functionality. Simplex infrastructure does not support control transport over fiber (such as Ethernet, USB, IR, Serial Control or EDID); although when used as part of a complete AMX controlled solution that includes NX Control hardware, control can be provided if a supplemental independent network connection is used.
Compatible Formats	HDMI Video / Audio over fiber
Regulatory Compliance	See Epica 288 Matrix Switcher Enclosure for regulatory compliance
Safety Certifications	Class 1 Eye Safe per requirements of IEC 60825-1 / CDRH

<b>DXLink Fiber</b>	
Transport Layer Throughput	10.3125 Gbps
Video Data Rate (max.)	4.95 Gbps
Video Pixel Clock (max.)	165 MHz
Progressive Resolution Support	480p up to 1920x1200,60 Hz
Interlaced Resolution Support	480i, 576i, 1080i
2K Resolution Support	2048x1024,47Hz; 2048x1080,60Hz; 2048x1152,60Hz; 2048x1536,24Hz - 2K formats are only compatible with DVI, HDMI, and DXLink Fiber Input/Output Boards and require the output or RX Scaler to be set in Bypass mode
Deep Color Support	24-bit
Color Space Support	RGB 4:4:4 YCbCr 4:4:4 and 4:2:2 (Input signal support is for YCbCr 4:4:4 and 4:2:2; output color-space is converted to RGB 4:4:4.)
3D Format Support	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  The scaler on the corresponding DXLink Fiber RX must be set to Bypass mode.
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, 192 kHz
HDCP Support	• 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 destinations per output/receiver, independent of source device
CEC Support	None
Connectors	16 LC Simplex Fiber ports (with and input and an output connector on each) conforming to ANSI TIA/EIA 604-10 (FOCIS 10A)

Fiber Cable Types and Supported Length	9/125 mm @ 6.21 miles (10 km)
Optical Wavelength	1310 nm
Single Mode Optical Budget	<ul style="list-style-type: none"> <li>• 7.4 dB (typical) between DXLink Fiber transceivers</li> <li>• Optical Modulation Amplitude (OMA): -5.2 dBm (min.)</li> <li>• Optical Modulation Amplitude (OMA) Sensitivity: -12.6 dBm (typical)</li> </ul>
Single Mode Optical Transceiver Mean Output Power	-8.2 dBm to 0.5 (average power)
DXLink Fiber Input Port Propagation Delay	5 ms
DXLink Fiber Output Port Propagation Delay	5 ms

<b>Connectors and Signal Types</b>	
DXLink Fiber (LC Simplex) Transceiver (Signal support depends on the type of DXLink Fiber Transmitters and Receivers used.)	HDMI with embedded digital audio DVI with or without HDCP or embedded digital audio Analog video input (RGBHV, RGBS, RGsB, Y/Pb/Pr) Digital audio or analog stereo audio

<b>EDID Resolutions Supported through Fiber Transmitter DDC</b>	
Standard Timing Identification (Default Shipping EDID*)	See the Epica DGX 288 Reference Manual for more information.

**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 2.10.2017. ©2017 Harman. All rights reserved. Specifications subject to change.

[www.amx.com](http://www.amx.com) | +1.469.624.7400 | 800.222.0193