FXD

16X16 Photonic Routing Switcher

Bringing Signal Distribution to "Light"

PESA has always offered some of the most innovative solutions for routing switcher technology. Now, partnering with Glimmerglass, Inc., PESA introduces one of the most innovative routing switcher solutions ever. The PESA FXD is a next-generation "photonic" routing switcher powered by BrillianceTM, Glimmerglass' patented microphotonics technology. Housed in a 2RU chassis, the FXD routing system is a revolutionary platform that accepts "any definition" (HD-SDI, SDI, Analog Video, Analog Audio, AES/EBU, ASI/DVB, or any format up to 40 Gb/s) by switching light signals between input and output fibers without electrical conversion. By simply integrating the FXD into your current distribution system, you're guaranteed to be future-proofed for years to come. Many new and exciting formats are beginning to appear as a result of high definition digital distribution, and PESA is gearing the FXD system to address these demands. The FXD supports bandwidths from 3Mb/s up to 40Gb/s.
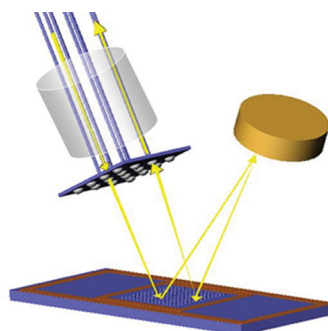
Brilliance™ Technology

Technology Overview

By switching light directly without electrical conversion, the FXD photonic routing switcher is cool and compact, featuring 16X16 non-blocking routing that supports any format. The 2RU chassis transmits over single-mode fiber and is field upgradeable to support a total of 24X24 ports. Integrated with PESA's 3500PRO control system, the FXD photonic routing switcher is the ideal solution for flexible and cost-effective long-distance video distribution (to 20 km) for any signal format.

FXD Photonic Switcher Benefits

The FXD photonic routing switcher complements PESA's industry-leading line of electrical routing switchers with advanced capabilities that bring a new level of flexibility to fiber-based video distribution networks.

• Enables "Format-Independent" Routing Over Fiber (Analog, SD, HD, . . . to virtually any definition)
• Accepts 19.4 ATSC, SMPTE 259M, SMPTE 292M
• Accepts AES/EBU Signals, ASI/DVB, NTSC, PAL, SECAM, Telemetry, L-Band, or Other Sine Wave Signals
• Supports Video, Audio & Data in a Single Chassis
• Non Existent EMI and Excellent Security Benefits
• Reduces space
• Reduces Power Consumption, Using less than 35 Watts for 16X16
• Supports Pathological Data
• Low Jitter Rate for Digital Video
• Monitors Signals in Real-Time and Automatically Routes around Fiber Cuts
• Multicasts any Input to Multiple Outputs (Optical DA)

Glimmerglass Brilliance™
Microphotonics Technology

PESA Switching Systems

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For More Information
on PESA's Line of Products:
www.pesa.com

FXD Photonic Switcher
16X16 Fiber Optic Routing Switcher

FXD SPECIFICATIONS

Integrated Control

The FXD is compatible with the PESA 3500PRO control system. The 3500PRO controller utilizes an open architecture hardware platform along with a user friendly Windows™ based user interface. The feature set of the 3500PRO controller offers specific functionality to serve many of today's high-end professional audio and video market requirements, while providing access to 3rd party control systems via an external RS232 CPU Link.

The controller card can be installed inside many PESA routing mainframes and supports either single or dual control functionality. An optional single 1RU or dual 2RU chassis version is also available. The 3500PRO supports all the popular 3500 series RCP panels.

The 3500PRO provides users with enough power to manage up to 16 control levels, 32 components, 600 sources, 600 destinations, and up to 64 tielines. The 3500PRO expands upon proven capabilities to bring users an easy-to-use control solution. The graphic-oriented, point and click interface permits error-free, offline/online configuration and editing and with flash RAM, firmware upgrades are easy.

3500PRO Controller Features

Virtual Matrix Mapping — Create sources and destinations only on the levels in which they are actually used. Levels which are not used are available to create other sources and destinations, thereby maximizing the use of the matrix. Further flexibility is provided by allowing sources to share inputs.

Matrix Breakup/Segmentation — RGB, RGBHV, Y/C, HDTV, or other multiple levels may be configured as smaller matrices within a large matrix.

PC Configuration with WIN3500PRO — PC based configuration software is independent of the controller operation. Once configurations are complete, the PC link (PRC-RS422) may be disconnected until configuration changes are required.

Switching Flexibility — Switching a variety of ways: audio follow video, breakaway, salvo, and diagnostic switching capabilities are available.

On-Line Diagnostics — Access the router status with physical switching and statusing. The diagnostic function enables the user to obtain readback and confidence status, as well as perform diagnostics on a selected component.

Software Reentry — Take a single source to a dynamic set of destinations in a single key stroke

Tieline Management — Switch a source to a destination transparently over levels of control or remote matrices. Tielines are automatically allocated by the controller, with the system administrator having the ability to monitor the tieline allocation and override any tieline used in the system.

System Integration — Integrate the 3500PRO controller with automation and other outside control monitoring systems with the RS232 CPU Link connection. Connect up third party control and automation systems such as the AMX and Crestron control systems, Leightronix Event Controllers, or any other type automation control interface.

FXD Photonic Switcher Specifications

Matrix Size:	16X16 (expandable to 24X24)
Signal Formats:	Format and Rate Independent, 19.4 ATSC, SMPTE 259M, SMPTE 292M AES/EBU, ASI/DVB, NTSC, PAL, SECAM, Telemetry, L-Band
Wavelength Range:	1270nm to 1630nm
Input Optical Power Range:	-20 dBm to +20 dBm
Insertion Loss:	< 4dB
Switching Time:	<50 ms
Auto Fail-Over Protection:	User-Configurable Power Thresholds 200 ms Recovery Time

MECHANICAL SPECS

Input/Output Fiber Type:	8/125 um Single-Mode Fiber
Connector Type:	LC/UPC or ST/UPC
Power:	Auto Range, 90 - 260VAC; 47Hz - 63Hz 35 Watts
Dimensions:	3RU, 5.25"H x 19"W x 18"D (133.5mm x 483mm x 457.2mm)
Weight:	20 lbs. / 9 kg

Services:
Customer support is available 24 hours a day, 7 days a week by calling 1-800-323-7372. International customers call +1 (256) 732-9222. In addition to our customer service support center, we offer online technical resources via our website at www.pesa.com/support. On site or factory training is available for control system operations, technical, and maintenance training. Contact our technical support group for additional information. Spares can be ordered through your area sales representative. Specifications subject to change without notice.

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