



Features

- 8 non-blocking serial I/O ports
- Up to 10 Gbps/port data rate and compatible with SFP+
- Supports mini HD coax SFP's
- Supports loop, point-to-point and one-to-many communication links
- Supports multiple physical media options including short wavelength multimode (850 nm), 1310 nm, 1550 nm and CWDM singlemode
- Integrated optical redundancy feature, internal signal equalizer, optical power meter and SFP temperature alert
- Local RS-232 / USB programming interface for simple control. Optional SNMP control through OptivaView software
- CLI compatible with industry standard control panels
- Compatible with all Optiva products
- 3-Year Warranty

Applications

- Command and Control Centers
- Large Multiscreen Venues
- Digital Signage
- Video Conferencing and Distance Learning
- Fiber Optic Patch Panel

Optical Matrix Switch Design

The Optiva EMX-8 is a multi rate, non-blocking, optical cross point switch supporting data rates up to 10Gbps and compatible with SFP+ (Small Form-factor Pluggable) & SFP mini HD coax. EMX-8 enables complete end-to-end digital transport and routing over multimode / singlemode fibers and coax cable.

The compact design saves valuable rack space and increases cost effectiveness and flexibility. EMX-8 is compatible with all Optiva products and the intuitive CLI is compatible with practically any external control solution. Programmable via RS232 & USB interface, EMX-8 is the perfect solution for small optical switching applications of digital video, data and other protocols.

Signal switching is accomplished via optical to electrical then back to optical. This allows for high-resolution video signals to be distributed from a one-source-to-many receive locations or a one-to-one configuration. The EMX-8, along with the Optiva DVI card, provide lossless, secure fiber connectivity through out command / control centers and other secure facilities for high-definition video conferencing applications. In addition, the EMX-8 can be used in broadcast facilities for the distribution of 3G-HD over fiber and coax using SFP mini HD coax.

The EMX-8 uses removable SFP's, available separately. Only SMPTE compliant MSA form factor SFP's and SFP+'s are recommended. Coaxial and video SFP's may be used for sending digital video signals over the fiber links. Built-in temperature sensor and optical input / output power meter is available for Digital Diagnostic Interface (DDI) type SFP's.



System Design

EMX-8 is a card-based form factor switch designed for use in Optiva enclosures. It utilizes two insert card slots in 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. Also available in the rackmount form factor is our 1RU enclosure (Model: OT-CC-6-1U) which can accommodate six insert cards and utilizes two 60 watt power supplies. For desktop or wall mounting applications there is a two-slot (Model: OT-DTCR-2) enclosure that uses an external wall mount power supply.

optiva PLATFORM

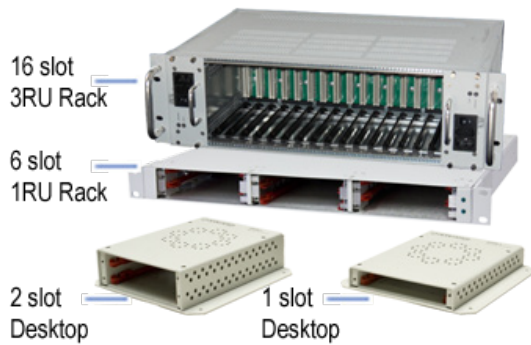
U.S. Patent #'s 7720385 & 8064773

DATASHEET FIBER OPTICS

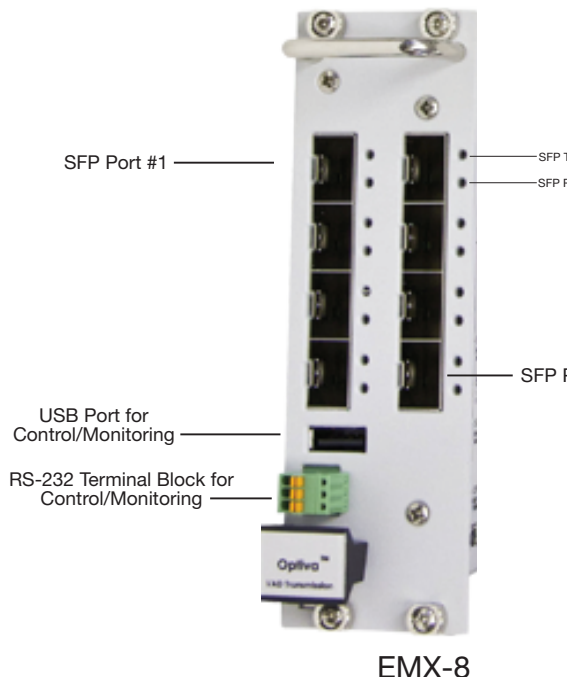
Ordering Information

Model	Description
EMX-8-04	Optiva Platform, 8x8 Optical Switch, 4.25 Gbps Maximum Port Speed
EMX-8-06	Optiva Platform, 8x8 Optical Switch, 6.375 Gbps Maximum Port Speed
EMX-8-10	Optiva Platform, 8x8 Optical Switch, 10 Gbps Maximum Port Speed

Enclosure Options



Connection Diagram



General

Specifications	Values
Dimensions	6.65" L x 1.59" W x 5.05" H
Operating Temperature	-20°C to +50°C
Storage Temperature	-40°C to +85°C
Humidity	0 to 95% (non-condensing)
Power Consumption	< 16 Watts
Data Rates	Up to 10 Gbps per port
Operating Voltage	9 - 12 VDC
Shock / Vibration	IEC-61373:1999, Category 1, Class A
Warranty	3 Years

■ SFP temperature range shall be taken into account during system design. EMX requires active cooling.

Monitoring & Control

Specifications	Values
Local	<ul style="list-style-type: none"> Front panel LED status indicators Optical power meters and temperature sensor (when using DDI type SFPs) RS232 & USB programming interface
Remote	OptivaView SNMP Management Suite

■ Requires OptivaView SNMP Controller Card (Model: OPV-CTLR)

Compliance (pending)

