

POLATIS 576 Optical Circuit Switch - NEW



Description

- 576x576 matrix – largest non-blocking optical circuit switch available
- New optical switching core for increased port density
- Optional field-addressable spare ports (16x16)
- New redundant architecture
- New highly integrated control system
- Superior optical performance
- Protocol and bit rate agnostic
- Dark fiber switching
- POLATIS patented DirectLight™ beam steering technology
- Multiple software interfaces and SDN-enabled
- All firmware field upgradeable
- Hot-swap network interface cards and power supplies



The POLATIS 576 represents a major advance in the size and performance of POLATIS all-optical switches. The largest non-blocking optical circuit switch now available on the market features an all-new internal architecture designed to enhance in-field reliability, availability and serviceability and a new optical core design, enabling a higher port density and saving valuable rack space. The inclusion of optional field-addressable spare ports means that in the unlikely event of a connection being interrupted, it can be recovered by moving a connector to a spare port and just a few clicks in the web UI.

The POLATIS 576 enables applications to scale with no additional impact on optical budgets. Reduce time to revenue by enabling the automation of testing in network test laboratories and the automation of cross connects in data centers. Reduce the risk to networks and national security by allowing network monitoring and cybersecurity applications to survey more lines more cost-effectively. The POLATIS 576 is the ultimate in reliable all-optical switching solutions.

Technical data

Optical performance

Description	Specification
Matrix size – addressable input/output ports	576x576
Field-addressable spare input/output ports ¹	16x16
Typical Insertion Loss ²	1.5dB
Maximum Insertion Loss ²	3.0dB
Maximum Insertion Loss with single OPM ²	3.3dB
Maximum Insertion Loss with two OPMs ²	3.6dB
Loss Repeatability ³	+/- 0.1dB
Connection Stability ³	+/- 0.1dB
Optical Switching Time (single connection)	75ms
Optical Switching Time (all connections)	100ms
Polarization Dependent Loss (PDL)	<0.1dB (C+L Bands) <0.3dB with optional OPMs (C+L Band)
Crosstalk	<-50dB
Operating Wavelength Range	1260-1675nm
Wavelength dependent Loss (WDL)	<0.3dB (C+L Bands)

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Return Loss (APC connectors)	>50dB
Data Latency Through a Switch Connection	<75ns
Optional Optical Power Monitoring (OPM)	Dynamic range -40dBm to +24dBm; accuracy +/-0.5dBm
Optical Input Power Range	Dark to +24dBm
Dark Fiber Switching	Yes
Bi-Directional Optics	Yes

¹ Optional feature

² Measured using the 3 patch-cord method as defined in ANSI/TIA/EIA-526-7-1998

³ Stability and repeatability are measured at maximum transmission

Mechanical data

Description	Specification
Fiber Type	Single Mode
Single Fiber Connector Types	LC or LC-HD Connectors Angled (APC) or Ultra (UPC) Polish Connectors
Array Connector Types	MTP-8 or MTP-12 Elite® Array Connectors
Switch Lifetime	>10 ⁹ Cycles

Electrical and interface data

Description	Specification
Power Supply Options	Hot Swappable Dual Redundant 100-240 VAC 50/60 Hz Hot Swappable Dual Redundant -48DC
Power Consumption	175 Watts with OPMs
Network Interface Card	RJ45 Dual Redundant Hot-Swap Gigabit Ethernet
Craft Interfaces	RS232 Serial and USB
Control Languages	Web GUI, TL1, SCPI, SNMP
SDN Interfaces	RESTCONF, NETCONF
Secure User (AAA) Interfaces	RADIUS (EAP-TTLS, PAP)

Environmental data

Characteristics	Conditions
Operating Temperature (Normal)	+10°C to +40°C <85% Rh non-condensing
Storage Temperature (Normal)	-40°C to +70°C <40% Rh non-condensing

Dimensions

Description	Specifications
Height – LC connectors	12 RU – 533 mm (21")
Height – MTP connectors	8 RU – 355 mm (14")
Width	440 mm (17.3") ; 482 mm (19") with mounting ears
Depth	550 mm (21.6")

HUBER+SUHNER Polatis Ltd
332 Science Park
Cambridge, CB4 0WN
United Kingdom



Supplied and supported in the UK by **Red Helix**
Tel: 01296 397711
Email: info@redhelix.co.uk
Web: www.redhelix.co.uk