

Reconfigurable Optical Switch Tray OST

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The Polatis OST family of products set the industry benchmark for performance in a compact, fully non-blocking optical switch tray.

The Reconfigurable option provides user-definable input and output ports, providing unprecedented flexibility for applications with changing needs. Users can create any matrix up to the total fiber count, such that a 16x16 could be reconfigured as a 1x31.

The OST is an ideal platform for network-level switching, given its ultra-low loss, fast switch speed, and high reliability for fiber routing, IP over optical and hybrid OEO/OOO systems. The ability to manage bi-directional traffic and switch dark fiber provides network operators with an ideal tool for fiber-layer monitoring.

The OST also excels in test environments, providing physical-layer connectivity for sharing of high value equipment and for automation of test sequences in design



verification, and manufacturing systems. Its instrument-grade performance ensures the maximum signal fidelity, with ultra-high stability and repeatability.

DirectLight® Technology

All Polatis products are based on the patented DirectLight beam-steering technology, setting the benchmark for reliable, high performance switching.

Polatis also offers Fixed port single and multimode OST products, as well as a range of optical switch modules and standard backplane optical cards.

KEY FEATURES

- User-definable inputs/outputs
- Ultra-low insertion loss
- High signal stability
- Low polarization dependent loss
- Fast switching speed
- High power handling
- Dark fiber switching
- Fully non-blocking
- Bi-directional operation
- Protocol and bit rate independent
- Ethernet, RS232 and GPIB options
- Standard protocols: SCPI, TL1, SNMP

APPLICATIONS

- Client-side OOO switching
- Hybrid OEO/OOO network switches
- Network IP over optical routing
- Network protection & restoration
- ROADM
- RF over fiber
- Remote network monitoring & test access
- Centralized PON/FTTH test capability
- Automated component test
- Network span emulation
- Centralized optical equipment sharing
- Secure communication networks

High performance optical switch solutions

PERFORMANCE SPECIFICATIONS	
Fiber Count Designator	L
Insertion Loss ¹	<1.4dB
Polarization Dependent Loss	<0.1dB
Crosstalk	<-60dB
Operating Wavelength Range	1260-1625nm
Wavelength Dependent Loss	<0.3dB (C+L Band)
Repeatability	<±0.05dB
Return Loss ²	>55dB
Switching Time	<17ms
Maximum Optical Power ³	+27dBm
Switch Lifetime	10 ⁸ cycles
Operating Temp (Normal)	+10° to +40°C, <85% RH non-condensing
Operating Temp (Extended)	- 5° to +55°C, <90% RH non-condensing
Storage Temp (Normal)	-40° to +70°C, <40% RH non-condensing
Storage Temp (Extended)	-40° to +70°C, <95% RH non-condensing
Qualification (Normal)	EN60950
Qualification (Extended)	Designed to meet Telcordia GR63 EN60950

All parameters are measured excluding connectors at 1550nm and 20°C with an unpolarized source after thermal equalization unless stated.

1. Measured using a 3 patch-cord method as defined in TIA/EIA-526-14A
2. With APC connectors return loss >70dB without connectors
3. Switch will operate on dark fiber

The performance characteristics of the switch trays vary according to the fiber count.

Fiber Count	08	12	16	20	24	28	32
CC	L	L	L	L	L	L	L

Packaging Information

Fiber Count	Connector	Tray Dimensions	Power Dissipation
8-32	LC or MU	19" rack mount	20W
8-16	FC, SC or ST	1 rack unit high	
17-32	FC, SC or ST	19" rack mount 2 rack units high	

Ordering Information

The part numbering scheme for Polatis products is as follows:

OST - x CC - 1 -

Fibers	8-32 Reconfigurable
Fibers	CC = Reconfigurable
Connector	L = LC F = FC C = SC T = ST U = MU
Polish	U = UPC A = APC
Fiber	1 = Single mode 9/125µm
Interface	E = Ethernet & RS232 M = Ethernet (Multisession) & RS232 G = GPIB, Ethernet & RS232
Protocol	S = SCPI T = TL1 N = SNMP
Power	B = Battery (48V) Mains connector type A = North America/Japan E = Continental Europe U = UK C = China/Australia
Environmental	N = Normal E = Extended
Customization	S = Standard R = Rear panel connector V = Non-standard variant



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