Optical Switch Tray OST

Optical Switch Tray

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

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 client-side switching. 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.

The OST is available in both symmetric (NxN) and asymmetric (MxN) port configurations, provided in a standard 19" rack mount enclosure.

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 multimode OST and Reconfigurable single mode OST products, as well as a range of optical switch modules and standard backplane optical cards.

KEY FEATURES

- Ultra-low insertion loss
- High repeatability
- 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

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
- High power laser switching
- Secure communication networks

High performance optical switch solutions

PERFORMANCE SPECIFICATIONS

Fiber Count Designator	G	H
Insertion Loss @ 1550nm [1]	<1.0dB	<1.4dB
Polarization Dependent Loss	<0.05dB	<0.1dB
Crosstalk	<-70dB	<-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)	Designed to meet 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	04	08	12	16	20	24	28	32
04	G	G	G	G	H	H	H	H
08	G	G	G	G	H	H	H	H
12	G	G	G	G	H	H	H	H
16	G	G	G	G	H	H	H	H
20	H	H	H	H	H	H	H	H
24	H	H	H	H	H	H	H	H
28	H	H	H	H	H	H	H	H
32	H	H	H	H	H	H	H	H

Packaging Information

Fiber Count	Connector Dimensions	Tray Dissipation	Power
8-32	LC or MU	19" rack mount 1 rack unit high	25W
8-16	FC, SC or ST		
17-32	FC, SC or ST	19" rack mount 2 rack units high	
33-64	All	19" rack mount 3 rack units high	45W

Ordering Information

The part numbering scheme for Polatis products is as follows:

OST - ___x___ - __ __ 1 - __ __ __ __ __

Fibers
- 4-32 Input
- 8-32 Reconfigurable

Fibers
- 4-32 Output
- 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

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
- V = Non-standard Variant

FOR MORE INFORMATION

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PROD-402-04-0-S JULY 2006