Data Sheet

HUBER+SUHNER

POLATIS® Series 6000 Multimode Instrument Optical Circuit Switch

Description

- Non-blocking multimode optical circuit switch.
- Ultra-low insertion loss.
- High connection stability and repeatability.
- Able to switch and hold dark fiber connections.
- Fully bidirectional optics.
- SDN-enabled.
- Transparent to traffic format and bit rate.



The POLATIS® Series 6000 Multimode Instrument optical circuit switch is a compact, high-performance fully non-blocking all-optical matrix switch, using 50 micron OM4 fiber, with up to 16 input and 16 output ports. The POLATIS DirectLight™ switch optics deliver superior optical performance and enable pre-provisioning of paths over dark fiber. The switch provides a transparent, user-configurable fiber layer that is independent of the traffic format and bit rate, making it an ideal switching solution for production test and measurement applications. The range of Command Line and SDN interfaces ensures that the switch can be easily integrated into test automation environments

Technical data

Optical Performance

Characteristics	Values
Switch Size (Input x Output Ports)	8x8 or 16x16
Maximum Insertion Loss at 1310mn[1]	2.5 dB
Maximum Insertion Loss at 850nm[1]	2.0 dB
Loss Repeatability[2]	+/-0.05 dB
Connection Stability[2]	+/-0.05 dB
Dark Fiber Switching	Yes
Bi-Direction Optics	Yes
Data latency through a switch connection	25 ns
Maximum Switching Time	20 ms
Crosstalk	<-40 dB
Return Loss	>30 dB
Optical Input Power Range	Dark to +24 dBm
Switch Lifetime	$>10^9$ Cycles

Electrical & Mechanical data

Characteristics	Values
Fiber Type	50µ OM4 multimode
Fiber Connectors	LC/UPC or FC/UPC
Power options	Hot Swap Dual Redundant 100-240 VAC 50/60Hz Hot Swap Dual Redundant -48 VDC
User Interfaces	Hot Swap Dual Redundant Gb Ethernet
Craft interfaces	RS232 Serial
Nominal Electrical Power dissipation	20 W
Control Languages	NETCONF, RESTCONF, TL1, SCPI, SNMP, POLATIS Web GUI

Notes:

1. *Measured using the 3 patch-cord method as defined in ANSI/TIA/EIA-526-7-1998*
2. *Stability and repeatability are measured at maximum transmission*

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Environmental data

Characteristics	Value
Normal temperature range in service	+5°C up to +45°C <85% RH non-condensing
Normal temperature range in storage	-40°C up to +70°C <40% RH non-condensing

Switch Dimensions

Characteristics	Value
Chassis height	44.45 mm (1 RU) for LC/FC or 88.90 mm (2RU) for FC
Chassis width	479 mm (19" nominal)
Chassis depth	550 mm

Ordering information

Product Configuration Codes: I - OS T - XX x XX - XX 8 - X M X N S

Product Range
I = Instrumentation

-

Product Type
OS = Optical Switch

Form
T = Tray

-

Input Ports
08 or 16

x

Output Ports
08 or 16 (must be symmetrical)

-

Connectors
L = LC
F = FC

Connector Polish
P = PC Duplex
A = APC Duplex

Fiber Type
8 = Multi Mode OM4 50/125um

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Comms
H = Hot Swap Ethernet & Serial Multisession (2xNICs)
E = Single Ethernet & Serial Multisession (1xNIC)

Protocol
M = Multi-Protocol (TL1, SNMP, SCPI, WebGUI)

Power
H = Hot Swap Twin 100/240 VAC
T = Hot Swap Twin -48 VDC

Environmental
N = Normal

Customisation
S = Standard