

# Reconfigurable VOA & Power Meter Switch Tray VST

## Reconfigurable VOA & Power Meter Switch Tray

The Polatis VST family of products offers an ideal integration of optical switching, attenuation and power monitoring in a single, compact package. This class of switch is unique to Polatis and delivers significant cost savings for a highly versatile tool with a single, easy-to-use interface.

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 to a 1x31.

Ideal for test environments, the VST provides physical-layer connectivity for sharing of high value equipment and automation of test sequences in design verification for manufacturing systems. Its instrument-grade performance ensures the maximum signal fidelity, with ultra-high stability and repeatability. VST integrated power meters permit rapid trouble-shooting across the entire test set without patching in separate meters.



The unique VOA function permits easy control of preset maximum power levels to protect sensitive downstream equipment.

## 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 and Multimode optical switch systems, as well as a range of optical switch modules and standard backplane optical cards.

## KEY FEATURES

- Integrated Variable Attenuation (VOA) option
- Integrated Power Meter (OPM) option
- Instrumentation grade performance
- Ultra-low insertion loss
- High repeatability
- Low polarization dependent loss
- High power handling
- Dark fiber switching
- Bi-directional operation
- Protocol and bit rate independent
- Ethernet, RS232 and GPIB options
- Standard protocols: SCPI, TL1, SNMP

## APPLICATIONS

- Automated component test
- Automated manufacturing test
- Network span emulation
- Systems verification testing
- Centralized optical equipment sharing
- Centralized PON/FTTH test capability
- ROADM

# High performance optical switch solutions

## PERFORMANCE SPECIFICATIONS

Fiber Count Designator	L
Insertion Loss @ 1550nm <sup>1</sup>	<1.7dB
Polarization Dependent Loss @ 0 dB attenuation	<0.15dB
Crosstalk	<-60dB
Operating Wavelength Range <sup>5</sup>	1260-1625nm
Wavelength Dependent Loss	<0.3dB (C+L Band)
Repeatability <sup>6</sup>	<±0.05dB
Return Loss <sup>2</sup>	>55dB
Switching Time	<17ms
Maximum Optical Power <sup>3</sup>	+24dBm
Switch Lifetime	10 <sup>8</sup> 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
<b>VOA Performance</b>	
Optical Attenuation Range <sup>7</sup>	>40dB
VOA Resolution	< 0.25dB
Output Stability @ 0dB <sup>8</sup>	< ± 0.05dB
<b>OPM Performance</b>	
Operating Wavelength Range <sup>5</sup>	1290-1330nm + 1450-1625nm
OPM Dynamic Range <sup>4</sup>	-30 to +24dBm
OPM Accuracy	< ± 0.5dBm

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

- Measured using a 3 patch-cord method as defined in TIA/EIA-526-14A.
- With APC connectors return loss >70dB without connectors.
- Switch will operate on dark fiber.
- Dynamic range for extended temperature is -20 to +24dBm.
- Calibrated range for optical power monitors; switch operable over 1260-1625nm.
- At zero attenuation.
- When output power is within OPM dynamic range.
- For stability at various levels of attenuation please contact Polatis for further details. Partially populated VOA & OPM options also available. Call for details.

The performance characteristics of the switch trays vary according to the fiber count and the selected VOA and OPM options.

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

Polatis Incorporated  
 In the US: 5 Fortune Drive, Billerica, MA 01821  
 Telephone +1 800 514 7435 Fax +1 978 670 4915  
 In the UK: 332 Cambridge Science Park, Cambridge CB4 0WN UK  
 Telephone +44 (0)1223 424200 Fax +44 (0)1223 472015  
 General Inquiries: info@polatis.com, www.polatis.com

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## Packaging Information

Fiber Count	Connector	Tray Dimensions	Power Dissipation
8-32	LC or MU	19" rack mount	25W
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:

**VST** - **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 connectors V = Non-standard variant
Switch Configuration	-100 = Output power monitors with absolute VOA -300 = Output power monitors -400 = Input power monitors

For information regarding any other configurations, please contact our sales team.



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 Phoenix Datacom  
 T: 01296 397711  
 E - info@phoenixdatacom.com  
 W - www.phoenixdatacom.com

