Reconfigurable
VOA & Power Meter Switch Tray
VST

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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

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 [1]	<1.7dB
Polarization Dependent Loss @ 0 dB attenuation	<0.15dB
Crosstalk	<-60dB
Operating Wavelength Range [5]	1260-1625nm
Wavelength Dependent Loss	<0.3dB (C+L band)
Repeatability	±0.05dB
Return Loss [2]	>55dB
Switching Time	<17ms
Maximum Optical Power [3]	+24dBm
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
VOA Performance	
Polarization Dependent Loss @ 20dB attenuation	<0.6dB
VOA Dynamic Range [4]	-30 to+24dBm
VOA Resolution	0.1dB
OPM Performance	
Operating Wavelength Range [5]	1290-1330nm + 1450-1625nm
OPM Dynamic Range [4]	-30 to +24dBm
OPM Accuracy	+/-0.25dB

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
4. Dynamic range for extended temperature is –20 to +24dBm
5. Calibrated range for optical power monitors; switch operable over 1260-1625nm
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.
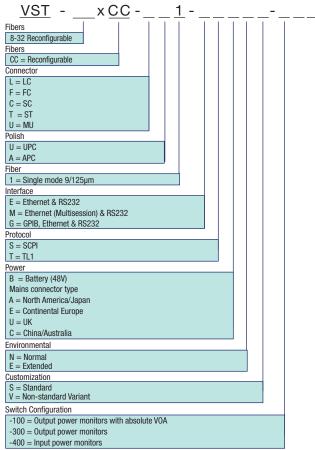
Fiber Count	08	12	16	20	24	28	32
CC	L	L	L	L	L	L	L

Packaging Information

Fiber Count	Connector	Tray Dimensions	Power Dissipation
8-32	LC or MU	19" rack mount 1 rack unit high	30W
8-16	FC, SC or ST	19" rack mount 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

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

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.

FOR MORE INFORMATION

Visit our website: www.jdsu.com

E-mail us: sales@jdsu.com

Phone us:
North American Sales: 1 866 228 3762
Latin American Sales: +55 11 5503 3800
Asia Pacific Sales: +852 2892 0990
EMEA Sales: +49 7121 86 2222

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