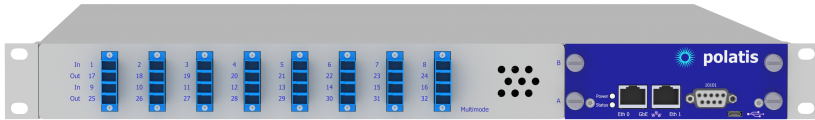


HUBER+SUHNER
Polatis

SERIES 6000i
Multimode Instrumentation
Optical Matrix Switch

MULTIMODE INSTRUMENTATION OPTICAL SWITCH WITH 8x8 TO 16x16 PORTS



Polatis Series 6000i Multimode 16x16 Optical Switch

The Polatis Series 6000i Multimode Instrumentation Grade Optical Switch is a high performance, fully non-blocking all-optical matrix switch available in sizes from 8x8 to 16x16. It is designed to work in demanding production test and measurement applications with exceptionally low optical loss and superior connection repeatability and stability. The switch is configured with 50-micron OM3 multimode fiber. The Series 6000i Multimode switch uses Polatis' patented DirectLight® optical switching technology that has been proven in challenging global production test applications. All-optical switching is an ideal solution for test and measurement applications because it provides a transparent, user-configurable fiber layer that is independent of the traffic format or bit rate.

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KEY FEATURES

- **Non-blocking multimode matrix switch in sizes from 8x8 to 16x16**
- **Ultra-low insertion loss and superior connection reproducibility and stability**
- **Ability to switch continuous and intermittent test signals**
- **Fully bidirectional optics**
- **Protocol and bit rate agnostic up to 100Gbs and beyond**
- **Compact form factor**
- **Built-in user-friendly secure Web GUI interface**
- **SDN Enabled with NETCONF and RESTCONF control interfaces**
- **Eco-friendly with very low power consumption**

DIRECTLIGHT BEAM-STEERING OPTICAL SWITCHING

The Series 6000i Multimode switch uses Polatis' patented piezoelectric DirectLight beam-steering technology that sets the industry standard for the highest optical performance. Polatis' beam-steering technology works with both unidirectional and bidirectional signals and can make and hold connections without light being present on the fiber. This allows pre-provisioning paths over lit or dark fiber and works with continuous or intermittent test signals.

TEST AUTOMATION

All-optical switching brings tremendous flexibility to automate and remotely control optical testing. All-optical switching allows test equipment connections to be fully automated and controlled remotely 24/7 via software from virtually anywhere in the world.

SUPERIOR OPTICAL PERFORMANCE

The Series 6000i Multimode switch has superior optical performance that is designed to meet the needs of the most demanding component, subsystem and system testing applications. The switch has exceptionally low optical loss (2.0dB at 850nm), high connection repeatability (+/- 0.05dB) and fast switching times (20ms). A single connection, or the entire switch, can be reconfigured in under 20ms.

LOWER PRODUCTION COSTS AND IMPROVED RESULTS

All-optical switching significantly lowers production test costs by increasing overall equipment utilization and reducing downtime required to manually reconfigure optical connections. With all-optical switching test equipment resources can be shared among devices and quickly reconfigured allowing more testing to be done in less time. Measurement accuracy and reproducibility are also improved by eliminating the uncertainty associated with making and breaking optical connections

BENEFITS OF POLATIS SWITCHING

- **Reduced costs with increased equipment utilization**
- **Faster test cycles with shorter downtime setting up production tests**
- **More accurate test results with improved measurement repeatability**
- **Future proof with transparent optical connectivity that does not need to be upgraded as transmission signal speeds and formats change**

APPLICATIONS

- **Component and subsystem test automation**
- **24/7 Remote lab operations**
- **Transponder testing**
- **Multimode fiber testing**
- **Lab As A Service (LaaS)**

Performance Parameters

| Performance Parameters | For All Polatis 6000i Multimode Switches |
|---|--|
| Max Insertion Loss at 1310nm ¹ | 2.5dB |
| Max Insertion Loss at 850nm ¹ | 2.0dB |
| Matrix Switch Sizes (NxN) | 8x8 or 16x16 |
| Loss Repeatability | +/-0.05dB |
| Connection Stability | +/-0.05dB |
| Dark Fiber Switching | Yes |
| Bi-Direction Optics | Yes |
| Max Switching Time | 20ms |
| Crosstalk | <-40dB |
| Return Loss | >30dB |
| Maximum Optical Input Power | +27dBm |
| Switch Lifetime | >10 ⁹ Cycles |
| Operating Temperature (Normal) | +10°C to +55°C <90% RH non-condensing |
| Storage Temperature (Normal) | -40°C to +70°C <40% RH non-condensing |

Electrical and Mechanical

| Electrical and Mechanical | Polatis 6000i Specifications |
|------------------------------|---|
| Fiber Type | 50-micron OM3 multimode fiber |
| Single Fiber Connector Types | LC/UPC or FC/UPC Connectors |
| Control Languages | SCPI, TL1, SNMP, NETCONF, RESTCONF & Secure Web GUI |
| User Interfaces | Dual RJ45 Gigabit Ethernet |
| Craft Interface | RS232 Serial |
| Secure User Access Protocols | RADIUS |
| Power Options | Hot-Swappable Dual Redundant 100-240 VAC 50/60 Hz |
| Power Consumption | 20W |

Switch Chassis Size

| Switch Chassis Size | All Series 6000i Multimode Switches |
|---------------------|--------------------------------------|
| LC or FC Connectors | 1RU Height x 19" Width x 550mm Depth |
| FC Connectors | 2RU Height x 19" Width x 550mm Depth |

All parameters are measured excluding connectors at 1310nm and 20°C with an unpolarized source after thermal equalization unless otherwise noted.

1. Measured using the 3 patch-cord method as defined in ANSI/TIA/EIA-526-7-1998

HUBER+SUHNER Polatis

North American Headquarters

HUBER+SUHNER Polatis
213 Burlington Road
Suite 123
Bedford, MA 01730
U.S.A.
For all enquiries:
+1 781 275 5080 phone
+1 844 POLATIS toll free
+1 781 275 5081 facsimile
info.polatis@hubersuhner.com

European Headquarters

HUBER+SUHNER Polatis
332/2 Cambridge
Science Park
Cambridge CB4 0WN
United Kingdom
For all enquiries:
+44 1223 424200 phone
+44 1223 472015 facsimile
info.polatis@hubersuhner.com

Follow us on Twitter @polatisnetworks

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