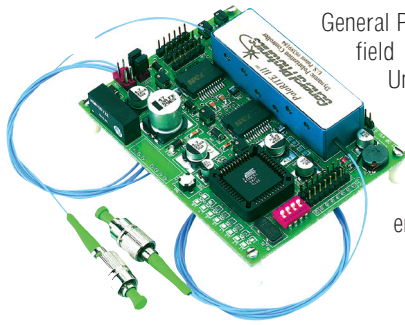


POLARIZATION MANAGEMENT MODULES

Miniature Polarization Scrambler Card



General Photonics' miniature polarization scrambler module is designed specifically for hand held and field instruments. It uses fiber squeezer technology to effectively randomize polarization states. Unlike the PCD-003 and PCD-004, the scrambling rate of this miniature scrambler is user selectable from a few hertz to tens of kilohertz via a push-button switch. Its low power consumption, as low as half a watt, enables the module to be powered by batteries. Its miniature size (3" x 4" x 0.8") allows it to be easily integrated in the tight spaces typical of handheld instruments. Finally, the scrambler has a superb scrambling uniformity enabled by an on board microprocessor and proprietary codes.

Specifications:

| | |
|--|--|
| Insertion Loss | 0.05 dB |
| Operating Wavelength | 1260 to 1650 nm and 970 to 1300 nm standard |
| Output Degree of Polarization (DOP) ¹ | < 5% |
| Average PMD | < 0.05 ps |
| Intrinsic PDL | < 0.05 dB, 0.01 dB typical |
| Return Loss | > 65 dB |
| Optical Power Handling | > 1000 mW |
| Power Supply | 5.0 to 5.5 VDC/3W max. |
| Power Consumption | 0.5 to 3 watts, depending on the scrambling rate |
| Scrambling Frequencies | User selectable: 10, 20, 50, 100, 200, 500, 1k, 2k, 5k, 10k, 12k, and 12.5 kHz |
| Operating Temperature | 0 ~ 65 °C |
| Storage Temperature | -40 ~ 85 °C |
| Board Dimensions | 3" x 4" x 0.8" (L x W x H) |

Notes: Values are referenced without connectors
1. Per 4000-point average.

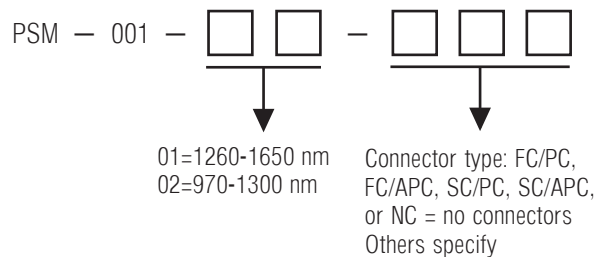
Features:

- Minimal insertion loss and back reflection
- Low residual phase and amplitude modulation
- Selectable scrambling frequencies
- Low power consumption
- Small size (3" x 4")

Applications:

- Hand held and field instruments
- Polarization sensitivity elimination
- Facilitating PMD emulation
- PMD monitoring for PMD compensation
- Facilitating PDL measurement

Ordering Information:



See page 42 for polarization scrambler with micro-processor option, page 40 for standard polarization scrambler, page 66 for passive depolarizer

Tech Info: pp. 103, 152
FAQ: p. 171

