INSTRUMENTS

Multifunction Polarization Controller – PolaMight™

INSTRUMENTS

POLARIZATION MANAGEMENT MODULES

TIMING/DELAY MANAGEMENT MODULES

SPECIAL POLARIZATION COMPONENTS

ACCESSORIES

APPLICATION GUIDE

FAQS

Controlling polarization state has never been easier: This instrument has four operational modes for complete polarization control: variable speed polarization scrambling, manual polarization adjustment, polarization function generation, and externally triggered scrambling. In polarization scrambling mode, the instrument uniformly scans through all SOP's on the Poincaré Sphere with user selectable speed and waveform, at frequencies ranging from 0.01 Hz to 6kHz. Alternatively, it can generate randomized SOP points with a trigger output for synchronizing external devices. In the function generation mode, each polarization control axis can be selectively controlled with a sine, square, or triangle wave of user defined frequency and amplitude. Each polarization control axis can also be controlled manually, by setting the input voltage either from the front panel controls or through a PC interface. In externally triggered scrambling mode, completely random SOP's are generated in response to synchronizing trigger signals, a feature desirable for recirculating loop applications. PolaMight™ puts the user in complete control.

Specifications:

Operating Wavelength Range	1260 - 1650 nm (standard), or 980 - 1360 nm
Polarization Scrambling Mode	Triangle, variable up to 500 Hz Random, variable up to 6 kHz
Manual Polarization Adjustment Mode	4 actuators with more than 5π retardation each
Polarization Function Generation Mode	Each actuator can be set with sine, triangle, and square waveforms of varied frequency & amplitude
External Triggering Mode	Random SOP per TTL trigger signal
Insertion Loss	0.05 dB, excluding connector loss
Display	2x20 character LCD display
Optical Power Handling	> 1000 mW
Operating Temperature	0 ~ 50 ℃
Storage Temperature	- 20 ~ 70 ℃
Power Supply	100 - 120 VAC, 50 - 60 Hz or 200 - 240 VAC, 50 - 60 Hz
Communication Interfaces	RS-232, USB, Ethernet, GPIB
Dimensions	2U, 19" half rack width 3.5"(H) x 8.5" (W) x 14" (L)

Features:

· 4 Polarization Control Modes
· Easy to Use
· Flexible Setting Options
· Speed up to 6 kHz
· Complete Polarization Control

Applications:

· PMD Emulation
· Polarization Scrambling
· System Polarization Studies
· PDL/DOP Measurement
· Recirculating Loop Studies

Tech Info: pp. 93, 98
FAQ: p. 167

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東京都文京区湯島 3-13-8 湯島不二ビル 301 号
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hikari ,inc.

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Typical Performance Data:

Scrambling by Random SOP Generation

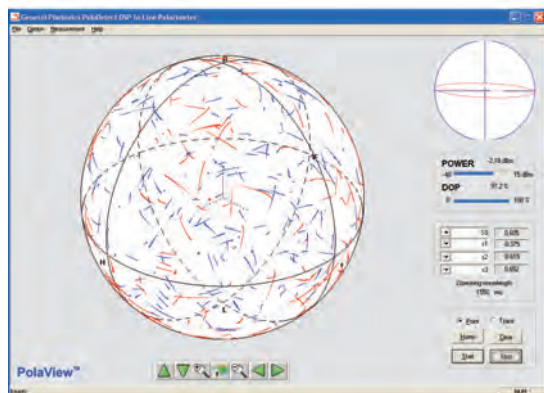Figure 1. Random scramble at f = 10Hz after 1 minute
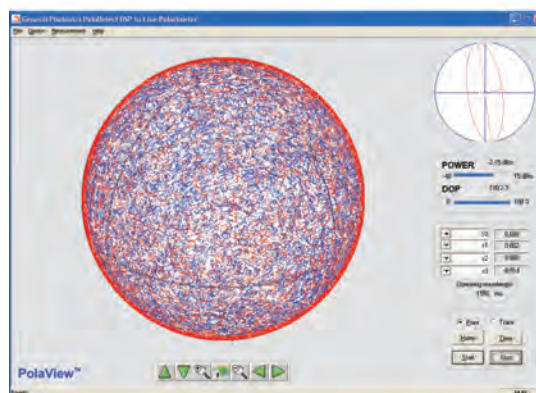(Displayed on POD-101D DSP In-line Polarimeter.)

Figure 2. Random scramble at f = 1kHz after 30 sec.
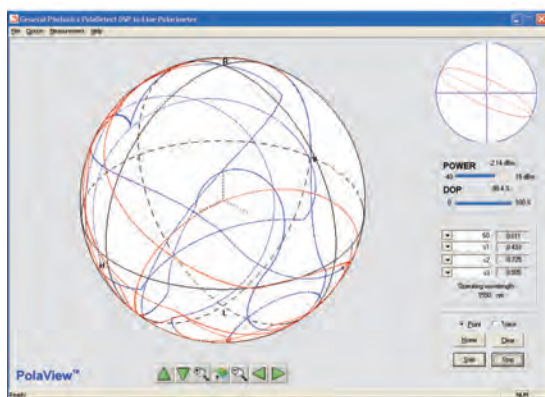
Scrambling by Scanning: SOP Coverage

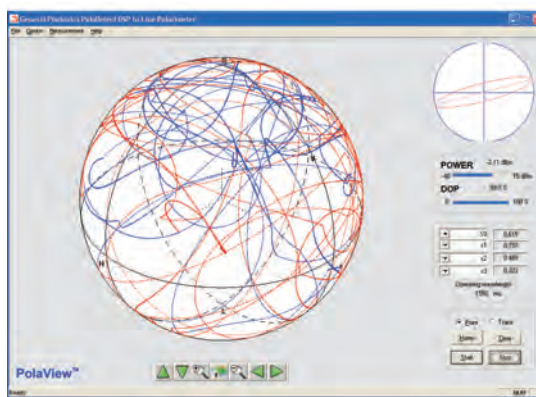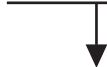Figure 3. Triangle wave scramble at f = 0.5 Hz after 30 seconds.

Figure 4. Triangle wave scramble at f = 0.5 Hz
after 90 seconds.

Ordering Information:

MPC –101 – ☐ ☐ ☐

Connector Type:
FC/PC, FC/APC
SC/PC, SC/APC
Others specify

Accessories:

NoTail™ Isolator	p. 79
NoTail™ Polarizer	p. 78
NoTail™ Circulator	p. 81
NoTail™ PBC/S	p. 74
NoTail™ Faraday Mirror	p. 76

Note: Please specify power supply when ordering.

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