## PolaMight<sup>™</sup> Multifunction Polarization Controller **MPC-101**

Controlling polarization state has never been easier: This instrument has five operational modes for complete polarization control: variable speed polarization scrambling, manual polarization adjustment, polarization function generation, externally triggered scrambling, and optional polarization stabilization. In polarization scrambling mode, the instrument uniformly scans through all SOP's on the Poincaré Sphere with user selectable speed and waveform, with frequencies ranging from 0.01 Hz to 6kHz, hundreds of times faster than the Agilent 11896A. 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 saw 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. In the optional stabilization mode, the output SOP is actively stabilized against input SOP fluctuations. None of these features are available in the Agilent 11896A. PolaMight<sup>TM</sup>, puts the user in complete control.

## **Preliminary Specifications**

Note: Please specify power supply when ordering.

Operating wavelength	1260 – 1630 nm (standard) or 980-1360 nm
Polarization scrambling mode	Saw, variable up to 500 Hz Random, variable up to 6 kHz
Manual Polarization adjustment mode	4 actuators with more than $5\pi$ retardation each
Polarization function generation mode	Each actuator can be set with sine, saw, and square waveforms of varied frequency & amplitude
External triggering mode	Random SOP per trigger signal, TTL
Insertion loss	0.05 dB, excluding connector loss
Display	2x20 characters LCD
Optical power handling	>1000 mW
Operating temperature	0° to 50° C
Storage temperature	-20° to 70°
Power supply	100 – 120 VAC, 50-60 Hz 200 – 240 VAC, 50-60 Hz
Interface with PC	RS-232, USB, Ethernet
Dimensions	2U, 19" half rack width 3.5"(H) $$ x 8.5" (W) x 14" (L)

## **Applications:**

PMD emulation Polarization scrambling System polarization studies PDL/DOP measurement Recirculating loop studies Unique Features: 5 polarization control modes Easy to use Flexible setting options Speed up to 6 kHz Complete polarization control **Ordering Information:** MPC - 101 - XXX



ng Light Work Lighte al Photor

General Photonics Corp. 5228 Edison Ave. Chino, CA 91710

> Tel: 909.590.5473 Fax: 909.902.5536

Email: info@generalphotonics.com



Website: www.generalphotonics.com

