

Integrated PolaRITE™ II/III with Miniature Piezo Driver Card

PCD-M02-B

The PCD-M02-B integrates a General Photonics all-fiber dynamic polarization controller module with an MPD-001 miniature piezo driver card, so that the SOP of the signal can be directly controlled either by a 0-5V analog control signal or a 12-bit TTL digital control signal. Because there is an on-board HV DC/DC converter, no external high voltage power supply is required. A 12-volt power adapter is provided. As a polarization controller, the PCD-M02-B can convert any input polarization state to any desired output polarization state. As a scrambler, it can randomize the output polarization state.

This instrument offers the low insertion loss, low back reflection, and low activation loss needed for test and measurement applications in a convenient small enclosure.



Preliminary Specifications

External Analog Input	10 pin
External Digital Input	20 pin
Number of Channels	3 or 4
Max. Output Voltage	140V
Max. Output Current	20 mA / channel all channels (continuous) 60 mA single channel (continuous) 60 mA per channel (peak)
Max. Analog Control Voltage	5V
Analog Input Gain	30V/V $\pm 1\%$
Digital Control Resolution	12 Bits
Input Impedance	>20 k Ω
Output Impedance	50 Ω
Noise	<40 mV (RMS) ¹
Response Time	<65 μ s rise and fall time with 15V output
Power Supply	12V/1.25A adapter (provided)
Operating Temperature	0° to 40° C
Storage Temperature	-20° to 60° C
Dimensions	170 (L) x106 (W) x38 (H) mm

1. Measured with PolaRITE II/III loading and output voltage of 140V.

Applications:

- Polarization control
- Polarization scrambling
- PDL measurement
- PMD compensation/emulation
- Fiber sensor

Unique Features:

- No insertion loss
- Low activation loss
- Fast response
- Digital and analog control
- Compact

Ordering Information:

PCD - M02 - B - XX - XXX - X

Channels:
3X = 3 Channel
4X = 4 Channel

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

Fiber Core Size:
1=3.7 μ m
2=4.6 μ m
3=5.6 μ m
4=6.0 μ m
5=7.0 μ m
6=7.7 μ m
7=9.0 μ m

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