



ACTIVE POLARIZATION MODULES

Mini Dynamic Polarization Controller - PolaRITE™ III (MPC-3/4X)



In response to customer requests for low profile polarization controllers for system integration, General Photonics made a special effort in designing this third generation polarization controller, the PolaRITE $^{\rm III}$ III, with significantly reduced height and size. The height reduction is especially advantageous for integration in test equipment, fiber sensors, fiber lasers and optical network modules. Due to a special athermal design, the temperature stability is also significantly improved over our earlier version PolaRITE $^{\rm III}$ II. Like the other products in the PolaRITE $^{\rm III}$ afmily, PolaRITE $^{\rm III}$ III essentially eliminates insertion loss and back reflection with its unique all fiber construction. Combined with General Photonics' miniature piezo driver card, it can be controlled either by a digital or analog signal to obtain any desired polarization output from an arbitrary input polarization state.

Specifications:

Intrinsic Insertion Loss	0.05 dB
Return Loss	> 65 dB
Wavelength	1260 to 1650 nm standard, others specify
Rise and Fall Time ¹	30 µs max.
Vπ at DC (at 23 °C)	35 volts max. @ 1550nm
Max. Activation Loss	0.01 dB (P grade), 0.05 dB (A grade) with 0 – 150VDC applied to all axes
Polarization Mode Dispersion	0.05 ps
Operating Temperature	-25 to 80 °C
Storage Temperature	-40 to 85 °C
Fiber Pigtail	$9/125~\mu m$ single mode fiber standard, others specify
Electrical Interface	8 pin 0.03 inch square, with 0.098 inch pitch
Dimensions	2.58" × 0.80" × 0.63" (3 axes) 3.27" × 0.80" × 0.63" (4 axes)
Maximum Applied Voltage	150 volts
Note: Values are referenced without connectors	

Features:

- · No intrinsic insertion loss
- · No intrinsic back reflection
- Fast response
- · Compact size

Applications:

- PMD compensation
- · Polarization stabilization
- Polarization demultiplexing
- Fiber sensor
- Fiber laser
- Testing equipment

Related Products:

- Polarization Controller with Driver Card (PCD-M02)
- Components

Tech Info:

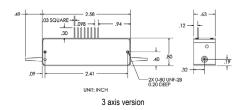
- What is Polarization?
- Polarization in Fiber Systems: Squeezing out More Bandwidth
- Combat Polarization Impairments with Dynamic Polarization Controllers
- PolaRITE™ II/III Polarization Controllers/ Scramblers Application Note

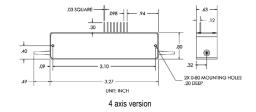
FAQ:

Polarization Controllers

Dimensions (in inches):

10 to 90% transition for a voltage change of V_m





Germany and Other Countries

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