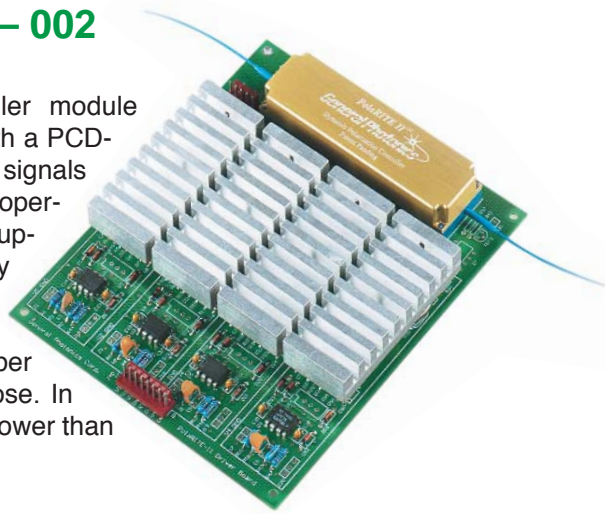


Driver Card for PolarITE™ II — PCD – 002

General Photonics' all fiber dynamic polarization controller module (patented) integrates a PCS-4X(3X) polarization controller with a PCD-002 drive card. The drive card has 4 inputs to accept 4 control signals of 0 ~ 10V to drive the PCS-4X(3X) polarization controller. To operate the polarization controller to its maximum range, a power supply of 150V is required. However, lower voltage power supply may also be used. For example, a power supply of 72V can provide a maximum driving voltage of 67V (72V-5V). This 67V voltage can induce more than 2π retardation for each fiber squeezer and is sufficient for most polarization control purpose. In general, the maximum driving voltage from the card is 5 volts lower than power supply voltage.



Specifications:

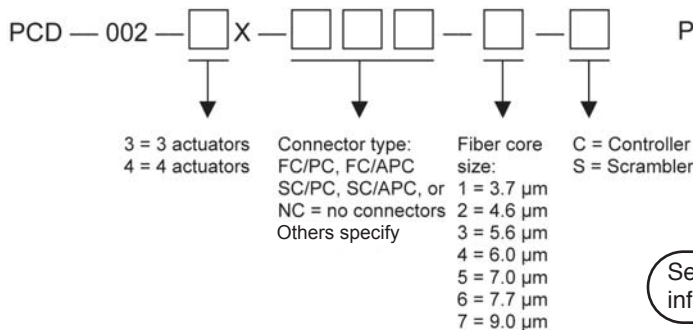
Electrical Characteristics	
Number of PZT Channels	4
EXT. Input Voltage Range	0 ~ 10 volts
EXT. Input Resistance	20 k Ω
Output Impedance	50 Ω
Rise Time	15 μ s @ 10 Vp-p
Output Voltage Range	0 ~ 150 volts VDC \pm 1%
EXT. Input Gain	15 V/V \pm 1%
Noise ¹	< 40 mV (rms)
-3 dB Bandwidth ²	40 kHz
Operating Temperature	0 ~ 40 $^{\circ}$ C
Storage Temperature	-20 ~ 60 $^{\circ}$ C
Physical Features	
Dimensions	4.5" (W) x 5.4" (D) x 1.0" (H)
EXT. Input Connectors	8 pin (25 mil. square) with 100 mil. pitch connector
Input Power Supply	160 V, 250 mA VDC and \pm 15 V, 200 mA VDC
Maximum Ratings	
Max. Output Current	60 mA per channel (continuous) 120 mA per channel (peak)
Max. EXT. Input Voltage	10 VDC

¹ The noise was measured with the output set to 150V and an output capacitance of 0.18 μ F (capacitance of PolarRITE II's piezo actuator). It may decrease with higher output capacitance and increase with no output capacitance.

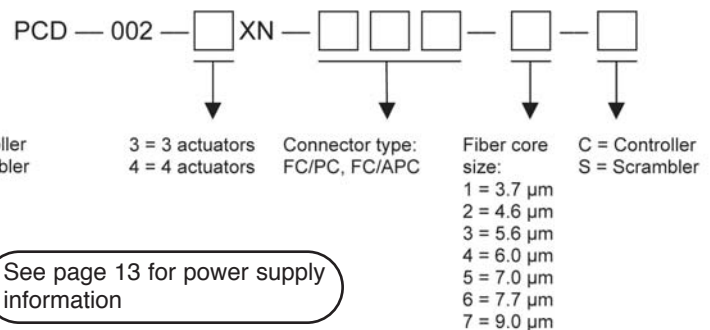
² The bandwidth was measured at 150V output without load. Any piezo added to the output may decrease the bandwidth.

Ordering Information:

Pigtail model:



NoTail™ model:



See page 13 for power supply information