Endless Polarization Controller

(Preliminary and Patent Pending)

Product Description

Agiltron's endless polarization controller offers true endless conversion of state of polarization (SOP) for network applications where interrupts due to device resets are prohibited. It converts any SOP to a fixed and linear polarization state, or to a user-defined SOP. The incoming SOP can vary in any fashion, including unlimited rotation in one direction. The device utilizes Agiltron's fast and highly stable electro-optic plates controlled by a proprietary polarization-conversion algorithm which advantageously forgoes the need for resets.

Agiltron provides driving board and electro-optical plate configuration for software development.
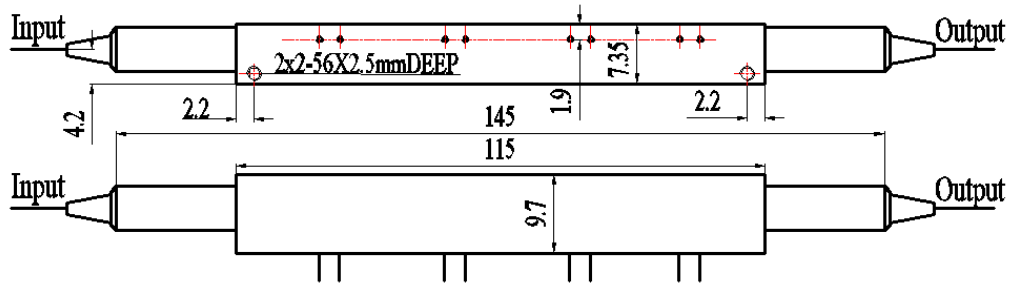

Features

- No Moving Parts
- High Reliability
- High Speed
- Low Insertion Loss
- Epoxy-Free Optical Path
- Low Power Consumption

Applications

- Polarization Management
- Polarization Detections
- PMD Compensation

Performance Specifications

Endless Polarization Controller	Min	Typical	Max	Unit
Wavelength		1250 ~ 1650		nm
Insertion Loss [1]		2.5	3	dB
Polarization Dependent Loss			0.2	dB
Return Loss		50		dB
Tracking Response Time		50		μs
Recovery Time		400		μs
Operating Optical Power			400	mW
Operating Temperature		-5 ~ 70		^oC
Storage Temperature		-40 ~ 85		^oC
Power Supply		5		V
Input Fiber Type		SMF-28		
Output Fiber Type		PMF		

1.Excluding connectors

Endless Polarization Controller

Mechanical Dimensions (mm)

Ordering Information

NEPC-	**1 1**	☐	**1**	**1**	**1**	☐	☐	☐
	Type	Wavelength	State	Package	Fiber Type		Fiber Length	Connector
		1310 = 3 1550 = 5 Special = 0			SMF-28 =1 Special=0	Bare fiber =1 900um loose tube=3 Special=0	0.25m= 1 0.5m = 2 1.0 m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0