

High Speed Polarization Scrambler (200kHz)

Product Description

Photonware's polarization scrambler using multiple electro-optical waveplates generates birefringence to alter SOP in the fiber line. Its fast response speed (ns) and no moving parts make it outstanding and reliable operation in achieving better than 5% DOP.

The polarization scrambler is based on fast speed electro-optical phase retardation with three plates oriented at 0, 45 and 0 degree. They are driving at slightly different frequencies. It converts any input state of polarization to randomly polarized states fully covering the Poincare sphere.



Performance Specifications

Polarization Scrambler	Min	Typical	Max	Unit
Center Operating Wavelength	1310	1550	1800	nm
Operating Wavelength Range		100		nm
Insertion Loss ^[1]		1.0	1.5	dB
Polarization Dependent Loss		0.05	0.15	dB
Return Loss	45	50		dB
Degree of Polarization (1000 AVG)			5	%
Modulation Frequency ^[2]	100	150	200	kHz
Power Supply		12 V		
Power Consumption		6		W
Operating Optical Power			500	mW
Operating Temperature		-5 ~ 70		°C
Storage Temperature		-40 ~ 85		°C

^[1] Excluding connectors.

^[2] Frequencies on three EO waveplates

Features

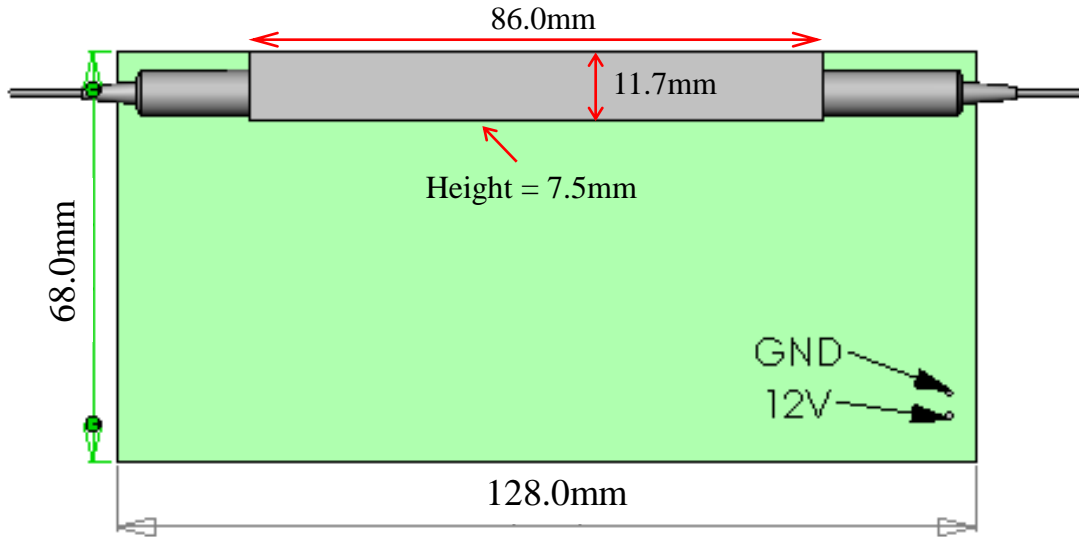
- No Moving Parts
- High Reliability
- Solid-State High Speed
- Compact Size
- Low Power Consumption
- Bidirectional

Applications

- Polarization scrambler
- Polarization Management
- Instrumentation

High Speed Polarization Scrambler

Mechanical Dimensions (mm)



Ordering Information

NOPS-	20	<input type="checkbox"/>	1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Wavelength	State	Package	Fiber Type		Fiber Length	Connector
	200kHz	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