

Ultra-High Speed (5MHz) Polarization Scrambler (preliminary)

Product Description

The polarization scrambler (5MHz) is based on fast speed electro-optical materials functioning as phase retardation with three plates oriented at 0, 45 and 0 degree. The electro-optical materials are modulated at ultra-high speed around 5MHz. Unlike conventional polarization scrambler, it is uniquely non-mechanical. It converts any input state of polarization to randomly polarized states fully covering the Poincare sphere. The polarization scrambler is designed to meet the most demanding operation requirements of ultra-high reliability, fast response, compact size to provide an ultimate solution for polarization randomization.

Features

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

Performance Specifications

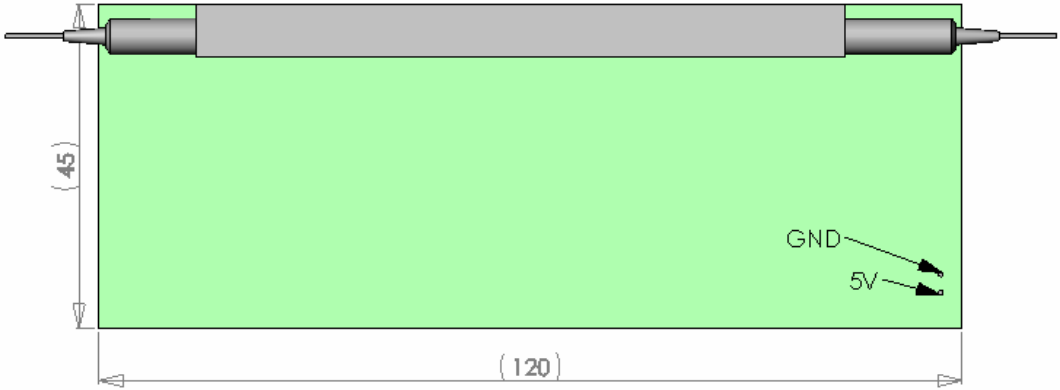
Polarization Scrambler	Min	Typical	Max	Unit
Center Operating Wavelength	800	1550	1800	nm
Operating Wavelength Range		100		nm
Insertion Loss		0.6	1.0	dB
Polarization Dependent Loss			0.15	dB
Return Loss	45	50		dB
Modulation Frequency		5		MHz
Intrinsic Birefringence		NO		
Cover All Polarizations		Yes		
Operating Optical Power			500	mW
Operating Temperature		-5* ~ 70		°C
Storage Temperature		-40 ~ 85		°C
Package Dimensions		45X120X10		mm

Applications

- Polarization scrambler
- Polarization Management
- Instrumentation

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Mechanical Dimensions (mm)



Electrical Driving Requirements

Parameter	Minimum	Typical	Maximum	Unit
Power Supply	4.75	5	5.25	V
Power Consumption	5.5	6	6.5	W

Ordering Information

NOPS-	1 2	<input type="checkbox"/>	1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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	

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