

# Polarization Scrambler

## PS3000 Series

**FIBERPRO's** Polarization Scramblers perform polarization scrambling at high speed and make Degree Of Polarization (DOP) zero on time average. It is based on all fiber technology that has enabled us to build very low insertion loss, back reflection free and a compact polarization scrambler.

Polarization dependence is one of the biggest issues in fiber-optic measurement, communications and sensors. PDL in components and equipments, Polarization Dependent Gain (PDG) in EDFA are typical examples.

Depolarizing is one of the solutions for the polarizing problems. Polarization Scrambler provides the best solution for most situations in which the depolarization is needed.

This equipment provides you with an excellent way to characterize / qualify optical property of optical devices. Furthermore, our PS can solve the problems associated with PDG of EDFAs by scrambling polarization of the optical signal.



## Features

- High speed scrambling (~1MHz)
- All single mode fiber configuration (Low loss, Low PMD)
- Wide operating wavelength range
- Input polarization independent
- GPIB, RS232, USB remote interface.
- Plug & Play

# Specifications

Model	PS3010	PS3110	PS3210
Output DOP	< 5%		
Polarization Modulation Frequencies	~ 1MHz <sup>1)</sup>		
Center Wavelength <sup>2)</sup>	1310nm	1550nm / 1590nm	1310nm
	1480nm		1550nm
	1550nm		1570nm
	1590nm		
Operating Wavelength Range	> 40nm	> 40nm each	> 80nm
Insertion Loss	< 1.0dB (with connectors)		
Average PMD	< 0.3 ps		
PDL	< 0.05dB (with connectors)		
Return Loss	> 40dB (PC connector)		
	> 60dB (APC connector)		
Operating Temperature Range	5°C ~ 35°C <sup>3)</sup> (DOP < 5%)		
Input / Output Connectorization	FC / PC <sup>4)</sup> (standard)		
Interface	GPIOB / RS232 / USB		
Power Input	100 ~ 250V, 50Hz / 60Hz free voltage		
Dimensions (W x D x H)	234mm x 410mm x 108mm (With rubber cover)		
	212mm x 380mm x 86mm (Without rubber cover)		

1) It is fine-tuned for optimum operation at the factory.

2) PS3110 has band selection function.

3) In the range of 0°C ~ 50°C, the output DOP slightly increases, however it is less than 10%.

4) Other connectorization is available. Specify when you order.

## Ordering Codes

### PS(1) - (2) - (3)

1. Model No. ➡ 3010 / 3110 / 3210

2. Center wavelength

PS3010 ➡ 131 : 1310nm

PS3110 ➡ X

148 : 1480nm

PS3210 ➡ 131: 1310nm

155 : 1550nm

155 : 1550nm

159 : 1590nm

157 : 1570nm

3. Connector type ➡ F / P : FC / PC

F / A : FC / APC

S / P : SC / PC

S / A : SC / APC



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