

# 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 EDFA 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 (Up to 120nm)
- Input polarization independent
- GPIB, RS232, USB, LAN remote interface.
- Plug & Play

# Specifications

Model	PS3010	PS3210	PS3510
Output DOP		< 5%	
Detection Bandwidth	≤ 10 kHz	≤ 3 kHz	≤ 1 kHz
Polarization Modulation frequencies		~ 1 MHz <sup>1)</sup>	
Center Wavelength	1310 nm 1480 nm 1550 nm 1590 nm	1310 nm 1550 nm 1570 nm	1310 nm 1440 nm 1570 nm
Operating Wavelength Range	> 40 nm	> 80 nm	> 120 nm
Insertion Loss <sup>2)</sup>	< 1.0 dB (with connectors)		< 1.5 dB (with connectors)
PDL <sup>2)</sup>	< 0.05 dB (with connectors)		
Return Loss	> 40 dB (PC connector) > 60 dB (APC connector)		
Operating Temperature Range	5 ~ 35 °C		
Input/Output connectorization	FC / PC <sup>3)</sup> (standard)		
Interface	RS232 / GPIB / USB 2.0		RS232 / GPIB / USB 2.0 / LAN
Power Input	100 ~ 240 V, 50 Hz / 60 Hz free voltage		
Dimensions (W×D×H)	234 mm×410 mm×108 mm (With rubber cover) 212 mm×380 mm×86 mm (Without rubber cover)		

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

2) In the case of PC type, over the whole operating wavelength range.

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

## Ordering Codes

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

1. Model No. ➔ 3010 / 3210 / 3510

2. Center Wavelength

PS3010 ➔ 131 : 1310nm

148 : 1480nm

155 : 1550nm

159 : 1590nm

PS3210 ➔ 131 : 1310nm

155 : 1550nm

157 : 1570nm

PS3510 ➔ 131 : 1310nm

144 : 1440nm

157 : 1570nm

3. Connector type ➔ F / P : FC / PC

F / A : FC / APC

S / P : SC / PC

S / A : SC / APC