

Polarization diversity coherent receiver module (InGaAs balanced detector 1510-1590nm bandwidth 100MHz)



● Product Description

Idealphotonics' PDR series polarization diversity receiving module is for polarization-sensitive fiber optic sensing applications. The polarization diversity receiving module separately coheres the two polarization states of the local oscillator light and the signal light, and uses two high-speed

low-noise balanced detectors to receive them separately, which can well solve the problem of coherent polarization state and is suitable for distributed fiber optic sensing, laser wind radar, optical coherence tomography and other application fields.

● Product features

High bandwidth、 High gain、 Low noise、 Built-in low noise isolated power supply

● Part Number

MP-PDR-M-I-100-F-A

● Application area

Fiber optic sensor、 Laser wind radar、 Optical coherence tomography、 Spectral measurement

● Core parameters

Wavelength	Bandwidth	Responsivity
1510-1590nm	100MHz	0.95A/W@1550nm



● General Parameters

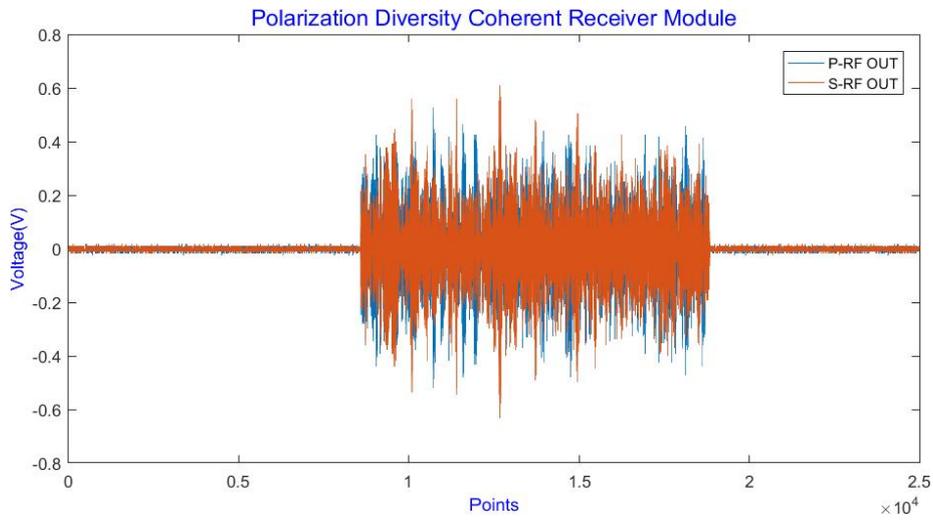
Parameter

wavelength	1510~1590 (1300±40nm; 1060±40nm customizable)											nm
bandwidth	100	200	350	400	500	800	1G	1.2	1.5	2G	2.5	Hz
	M	M	M	M	M	M		G	G		G	
Detector responsivity	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	A/W @1550nm
Transimpedance Gain	30K	30K	30K	10K	5K	30K	30K	30K	30K	15K	15K	V/A
Input light	Local	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	mW
	Signal	300	300	300	300	300	300	300	300	300	300	μW
Polarization extinction ratio	22	22	22	22	22	22	22	22	22	22	22	dB

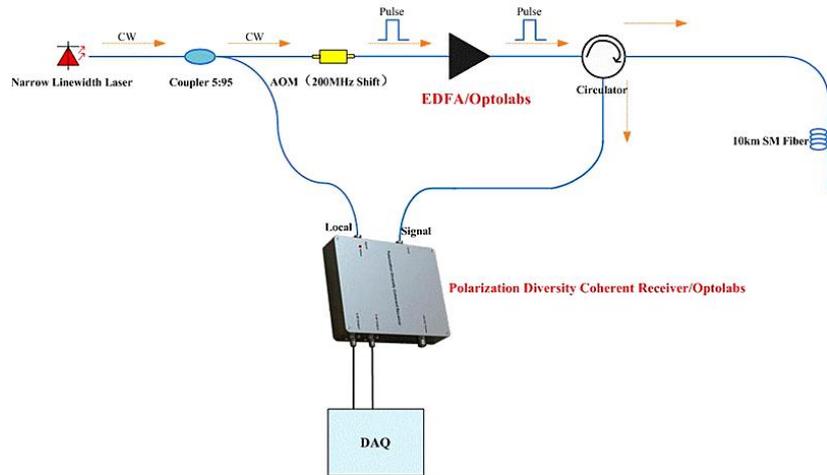


NEP	5	5	5	7	7	9	9	9	9	9	9	pW/ Sqrt (Hz)
Supply voltage	5	5	5	5	5	12	12	12	12	12	12	V
Supply current	0.4(max)	0.4(max)	0.4(max)	0.4(max)	0.4(max)	0.3(max)	0.3(max)	0.3(max)	0.3(max)	0.3(max)	0.3(max)	A
Output coupling mode	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	
Connector type	Electrical connector: SMA					Fiber connector: FC/APC						
Fiber type	Local: PM ; Signal: SM											
RF Output	SMA											
Dimension	120*100*25mm (90*80*20mm can be choose)											

Related test data



P polarization and S polarization coherent signals



Polarization diversity coherent receiving optical path diagram.