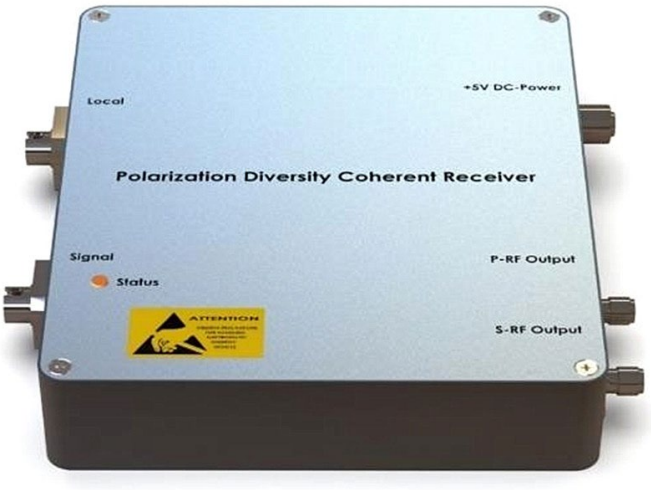
Polarization Diversity Coherent Receiver



Description:

The polarization diversity receiving module covers the two polarization states of local oscillator and signal light separately, and receives them separately by two high-speed low-noise balance detectors. It can solve the problem of coherent polarization well. It is suitable for distributed optical fiber sensing, laser wind radar, optical coherence tomography and other applications.

Features:

- Low Noise
- High Bandwidth
- High Transimpedance Gain
- Compact Structure
- Customizable Products

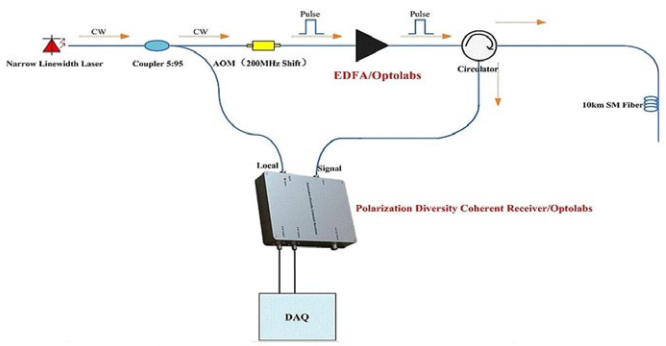
Application:

- Optical Fiber Sensing
- Doppler Wind Lidar
- OCT
- Laser Ranging
- Spectrometry

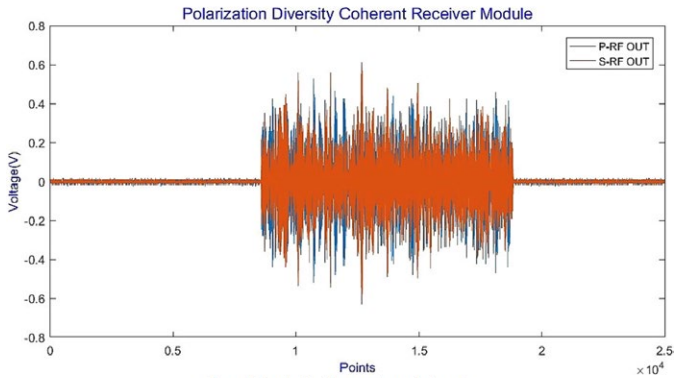
Specifications:

Product Model		PDR-100M-A	PDR-200M-A	PDR-300M-A	PDR-400M-A	PDR-500M-A	PDR-800M-A	PDR-1G-A	PDR-1.2G-A	PDR-1.5G-A	PDR-2G-A	PDR-2.5G-A	Unit
Wavelength		1510~1590 (1300±50nm; 1060±50nm choose)											nm
Detector Responsivity		0.95@1550nm											A/W
Bandwidth		100M	200M	300M	400M	500M	800M	1G	1.2G	1.5G	2G	2.5G	Hz
Transimpedance Gain		30K	30K	30K	20K	10K	30K	30K	30K	30K	30K	30K	V/A
Input	Local	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	mW
	Signal	300	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)
Output Coupling Mode		AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	
Supply Voltage		5	5	5	12	12	12	12	12	12	12	12	V
Supply Current		0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	A
Interface Type		Electrical Interface: SMA Optical Fiber Interface: FC/APC											
Optical Fiber Type		Local: PM; Signal: SM											
Radio Frequency Output		SMA											
Shape Size		120*100*25mm											

Test Result:



Polarization Diversity Coherent Receiving Optical Path Map



P and S polarization coherent signals