

Rof BPD High speed balanced Photodetector optical detection module unamplified

ROF-BPD series high-speed balanced optical detection module can effectively reduce laser noise and common mode noise, improve the signal-to-noise ratio of the system, optional bandwidth up to 40GHz, easy to use and other features. It is mainly used in the fields of coherent optical communication, LiDAR, microwave photon coherence detection, and fiber optic transmission.

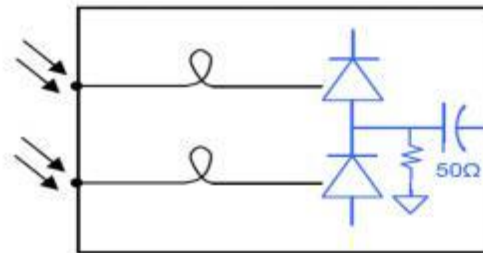
Feature

Spectral range: 1000~ 1620nm
Up to 40GHz analog bandwidth
Low noise, high common-mode rejection ratio
DC and AC coupling output Optional

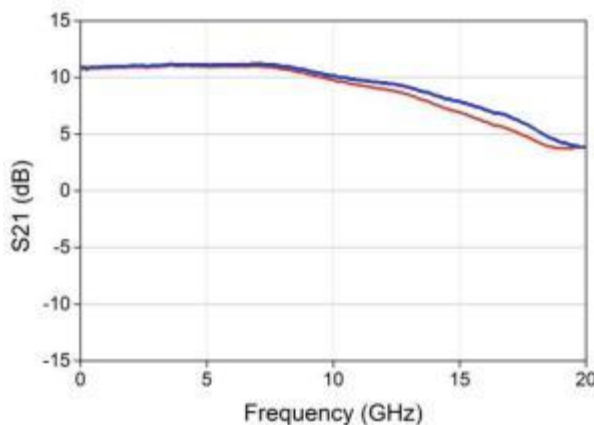
Application

High Speed Optical Fiber Communication System (DPSK, DQPSK)
High speed optical fiber sensing system

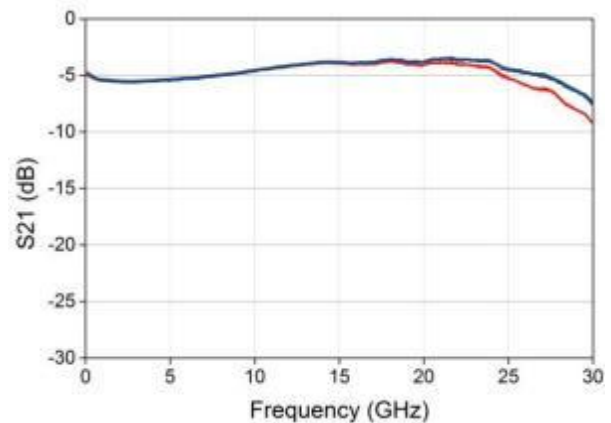
Working principle



Characteristic curve



ROF-BPD-10G



ROF-BPD-25G

Detector two-way (positive and negative) frequency response curve



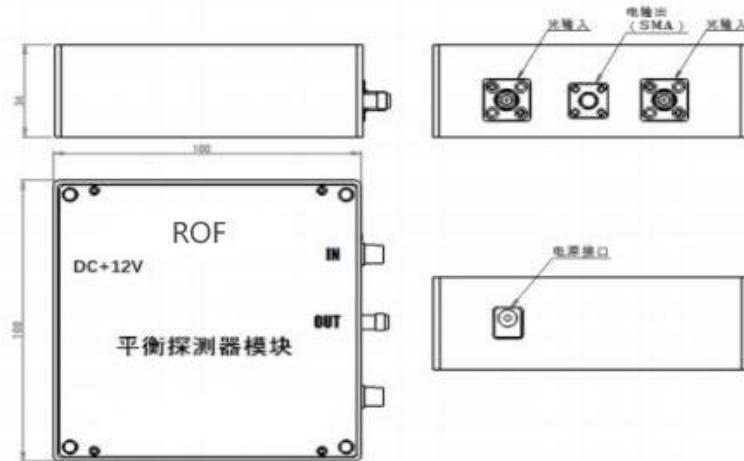
Parameters

parameter	Symbolic	unit	ROF-BPD-10G	ROF-BPD-25G	ROF-BPD-40G
Response wavelength	λ	nm	1000~1620		1525~1575
-3dB bandwidth	BW	GHz	>10	>25	>37
Saturated input optical power	P_s	dBm	10		
Common mode rejection ratio	CMRR	dB	>20 (typ. 25)		>15 (typ. 18)
Responsiveness @1550nm	R	A/W	>0.9	>0.8	>0.45
Dark current	I_d	nA	<20		<200 (typ. 5)
Polarization dependent loss	PDL	dB	<0.6		<0.8 (typ. 0.4)
Optical return loss	ORL	dB	>25 (typ. 30)		>27
Power supply	U	V	DC 12V, 1A		
Output coupling mode			AC and DC coupling is optional		
Output impedance	Z	Ω	50		
Output RF connector	--		SMA (f)	K (f)	V(f)
Input fiber connector	--		FC/PC、FC/APC is optional		

Limiting condition

parameter	Symbolic	unit	Minimum	Typical	Maximum
Balance the input optical power	P_{in}	mW			10
Operating temperature	T_{op}	$^{\circ}C$	-20		70
Storage temperature	T_{st}	$^{\circ}C$	-40		85
humidness	RH	%	5		90

Package size (mm)



Ordering information

PT	XX	XX	XX
Probe module type: BPD—Balanced Photodiode	Operating bandwidth: 10---10GHz 25---25GHz 40---40GHz	Pigtail type: SM---- single-mode optical fiber	Joint type: FP---FC/PC FA---FC/APC

* If you have any special requirements, please contact our sales staff