ROF-BPR Series

Equipped with amplification balanced photodetector

The ROF-BPR series balanced light detection module integrates two matched photodiodes and an ultra-low noise transimpedance amplifier, effectively reducing laser noise and common mode noise, improving the signal-to-noise ratio of the system, with multiple wavelengths and bandwidths to choose from, low noise, high gain, and convenient use. Mainly used in laser radar heterodyne detection, optical delay measurement, optical coherence tomography (OCT) and other fields.

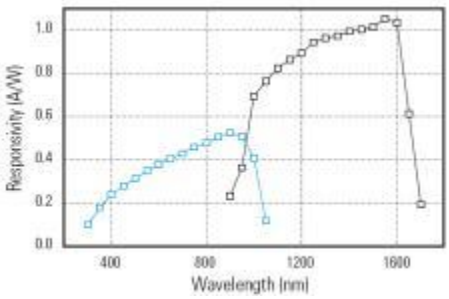
Feature

- Spectral range: 400-1100, 850-1650nm
- Typical wavelengths: 850/1064/1310/1550nm
- 3dB bandwidth: Multiple bandwidths to choose from
- High common mode rejection ratio:>25dB
- High gain: optional and adjustable gain
- Support various customized solutions

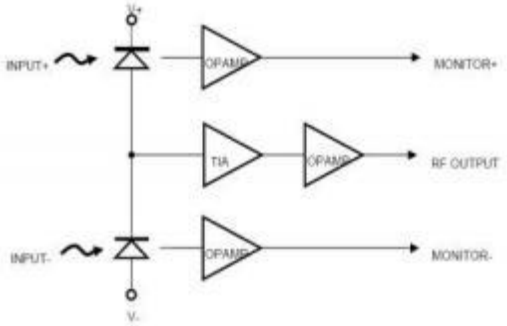
Application

- LiDAR
- Optical delay measurement
- Optical coherence tomography imaging

Working principle



Typical spectral response curve



Internal Circuit Diagram

Product application recommendation

Model (ROF-)	BPR-10M-B	BPR-80M-A	BPR-200M-A	BPR-350M-A	BPR-400M-A	BPR-500M-A	BPR-1G-A	BPR-1.6G-A	BPR-2G-A	BPR-2.5G-A
Bandwidth (Hz)	10MHz	80MHz	200 MHz	350MHz	400 MHz	500 MHz	1GHz	1.6GHz	2GHz	2.5GHz
Typical wavelength	850/ 1550nm	850/ 1550nm	1310/1550 nm		1064/1310/1550nm					
OCT	★★	★★	★	★	★★★	★★★	★★★	★★	★★	★
LiDAR	★	★	★★	★★★	★		★★	★★	★★	★

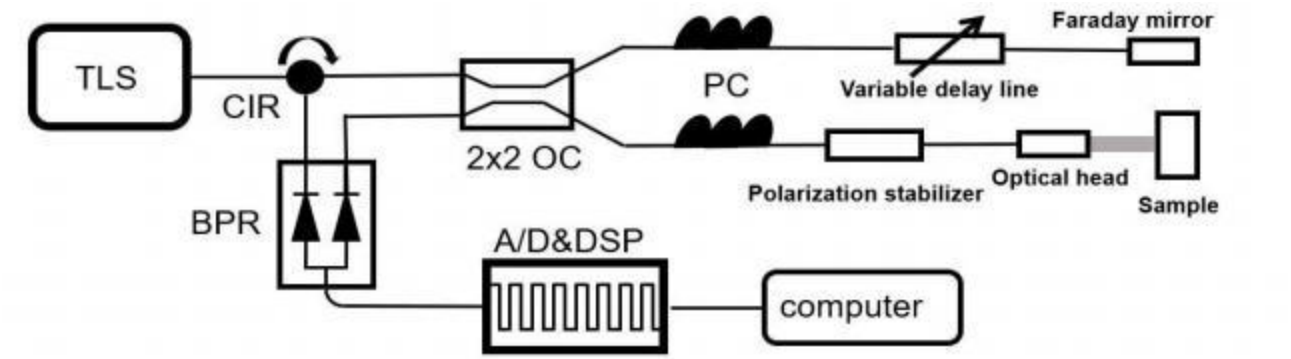
Series bandwidth fixed gain balanced photodetector （10MHz/80MHz/200MHz/400MHz/500MHz/1GHz/1.6GHz/2GHz /2.5GHz）

The high gain balanced detection module optimized for the third-generation OCT (SS-OCT) system has high gain and ultra-low noise characteristics. Through wavelength optimization, it achieves high common mode rejection ratio, high output voltage amplitude, and is equipped with Monitor monitoring signal (up to 10Vpp) output. This detector can provide DC-10MHZ,DC-80MHZ,DC -200MHZ,DC-400MHz, 50K-1GHz, 50K-1.6GHz, 50K-2GHz, 1M-2.5GHz, Optimized for 1064nm and 1310nm wavelengths, with ultra-low noise performance

Feature

- Typical wavelengths: 850/1064/1310/1550nm
- 3dB bandwidth: 10MHz/80MHz/200MHz/400MHz/500MHz/1GHz/1.6GHz/2GHz/2.5GHz
- High common mode rejection ratio:>30dB
- High gain: 14.5 × 103V/W (50 ohms)

SS-OCT schematic diagram



BPR-10MHz

Model	ROF-BPR-10M-A2-FC-DC/AC	ROF-BPR-10M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-10 MHz /10KHz-10MHz	DC 10MHz/10KHz-10MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ high impedance state	10×10^3V/W	0.7×10^3V/W
Noise voltage (RMS)	$<1mV_{RMS}$	$<1mV_{RMS}$
sensitivity	-40db	-35db
Saturated optical power	400μW	800μW
Maximum output amplitude @ high impedance	3.8Vpp	3.8Vpp

Damage to optical power	10mW
Working temperature range	-20~+70 ℃
Working Voltage	DC ± 12V (with low-noise power adapter)
operating current	60mA
Input connector	FC
Output connector	SMA
output impedance	50 ohms
Output coupling method	AC coupling (DC optional)
Dimensions (mm)	78.5mm×71mm×25.7mm

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-80MHz

Model	ROF-BPR-80M-A2-FC-DC/AC	ROF-BPR-80M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-80 MHz /10KHz-80MHz	DC-80MHz/10KHz-80MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ high impedance state	10×10^3V/W	0.7×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
sensitivity	-40db	-35db
Saturated optical power	400μW	800μW
Maximum output amplitude @ high impedance	3.8Vpp	3.8Vpp
Damage to optical power	10mW	

Working temperature range	-20~+70 ℃
Working Voltage	DC ± 12V (with low-noise power adapter)
operating current	60mA
Input connector	FC
Output connector	SMA
output impedance	50 ohms
Output coupling method	AC coupling (DC optional)
Dimensions (mm)	78.5mm×71mm×25.7mm

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-200MHz

Model	ROF-BPR-200M-A2-FC-DC/AC	ROF-BPR-200M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-200 MHz /10KHz-200MHz	DC-200MHz/10KHz-200MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ high impedance state	10×10^3V/W	0.7×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
sensitivity	-40db	-35db
Saturated optical power	400μW	800μW
Maximum output amplitude @ high impedance	3.8Vpp	3.8Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	60mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-400MHz

Model	ROF-BPR-400M-A2-FC-DC/AC	ROF-BPR-400M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-400 MHz / 10KHz-400MHz	DC-400MHz/10KHz-400MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ high impedance state	10×10^3V/W	0.7×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
sensitivity	-39db	-34db
Saturated optical power	400μW	800μW
Maximum output amplitude @ high impedance	3.8Vpp	3.8Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	60mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-500MHz

Model	ROF-BPR-500M-A2-FC-DC/AC	ROF-BPR-400M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-500 MHz /10KHz-500MHz	DC-500MHz/10KHz-500MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ high impedance state	10×10^3V/W	0.7×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
sensitivity	-39db	-34db
Saturated optical power	400μW	800μW
Maximum output amplitude @ high impedance	3.8Vpp	3.8Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	60mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10

Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-1GHz

Model	ROF-BPR-1G-A2-FC	ROF-BPR-1G-A1-FC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	50K-1GHz	50K-1GHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ 50 Ω	14.5×10^3V/W	10×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
Maximum output amplitude @ high impedance	5.5Vpp	5.5Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	200mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-1.6GHz

Model	ROF-BPR-1.6G-A2-FC	ROF-BPR-1.6G-A1-FC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	50K-1.6GHz	50K-1.6GHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ 50 Ω	14.5×10^3V/W	10×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
Maximum output amplitude @ high impedance	5.5Vpp	5.5Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	200mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-2GHz

Model	ROF-BPR-2G-A2-FC	ROF-BPR-2G-A1-FC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	50K-2GHz	50K-2GHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ 50 Ω	14.5×10^3V/W	10×10^3V/W
Noise voltage (RMS)	<5mV$_{RMS}$	<5mV$_{RMS}$
Maximum output amplitude @ high impedance	5.5Vpp	5.5Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	
operating current	200mA	
Input connector	FC	
Output connector	SMA	
output impedance	50 ohms	
Output coupling method	AC coupling (DC optional)	
Dimensions (mm)	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

BPR-2.5GHz

Model	ROF-BPR-2.5G-A2-FC	ROF-BPR-2.5G-A1-FC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	1MHz-2.5GHz	1MHz-2.5GHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ 50 Ω	14.5×10^3V/W	10×10^3V/W
Noise voltage (RMS)	$<5mV_{RMS}$	$<5mV_{RMS}$
Maximum output amplitude @ high impedance	5.5Vpp	5.5Vpp
Damage to optical power	10mW	
Working temperature range	-20~+70 ℃	
Working Voltage	DC ± 12V (with low-noise power adapter)	

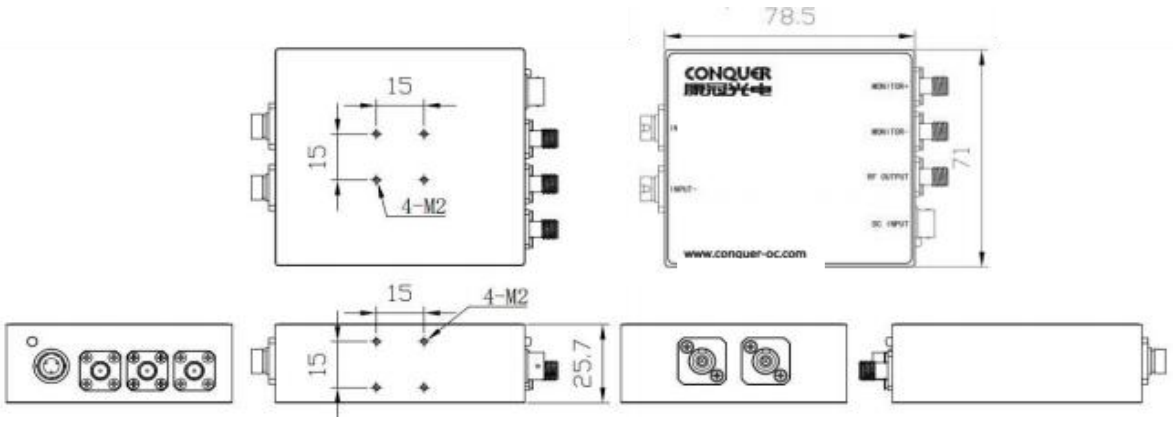
operating current	200mA
Input connector	FC
Output connector	SMA
output impedance	50 ohms
Output coupling method	AC coupling
Dimensions (mm)	78.5mm×71mm×25.7mm

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

Dimensions (mm)

Balanced photodetector

±12V power adapter

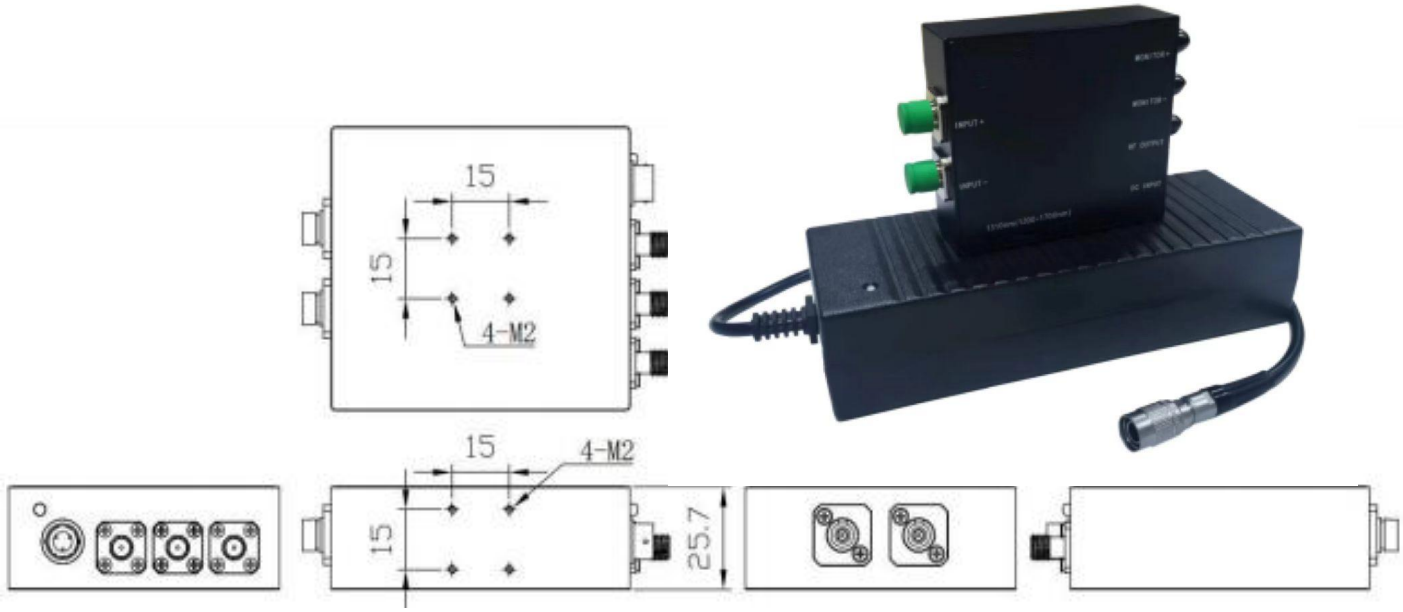


BPR-400MHz/40K Ultra low noise

Model	ROF-BPR-400M-A2-FC-DC/AC	ROF-BPR-400M-A1-FC-DC/AC
Spectral response range	1200-1700nm	900-1400
Typical wavelength	1310nm/1550nm	1064nm
responsiveness	0.9A/W@1550nm	0.7A/W@1064nm
3dB bandwidth	DC-400 MHz / 10KHz-400MHz	DC-400MHz/10KHz-400MHz
Common mode rejection ratio CMRR	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ 50 Ω	40×10^3V/W	28×10^3V/W
Noise voltage (RMS)	<23mV_{Vpp}	<23mV_{Vpp}
Maximum output amplitude @ high impedance	-45db	-43db
Damage to optical power	-10 dBm	-8 dBm
Working temperature range	3.8Vpp	3.8Vpp
Working Voltage	10mW	
operating current	-20~+70 ℃	
Input connector	DC ± 12V (with low-noise power adapter)	
Output connector	60mA	
output impedance	FC	
Output coupling method	SMA	
Dimensions (mm)	50 ohms	
model	AC coupling (DC optional)	
Spectral response range	78.5mm×71mm×25.7mm	

Project	SYP	Unit	technical indicators	measured value
Monitor working bandwidth	BW	Hz	5M	5M
Monitor gain	G	V/W	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm	10V/mW@1550nm 10V/mW@1310nm 7V/mW@1064nm
output impedance	Z	Ω	200	200
Maximum output amplitude	V_{max}	V	10	10
Maximum input optical power	P_{max}	dBm	5	5
Monitor noise voltage	Vpp	mV	7	6.5
Maximum output amplitude	V_{max}	V	10	10

Dimensions (mm)



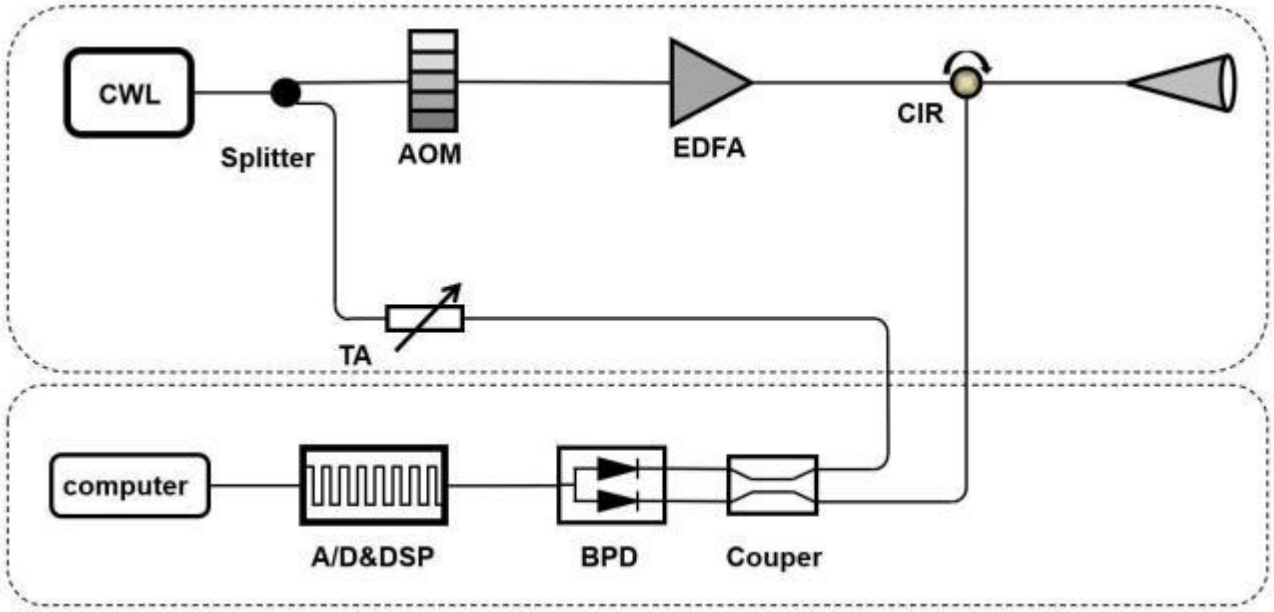
Low bandwidth fixed gain balanced photodetector（200MHz/350MHz）

The ROF-BPR series 200M and 350M high gain balanced photodetectors have high gain and low noise characteristics. By optimizing the responsiveness of two PIN tubes, they achieve high common mode rejection ratio and high output voltage amplitude (~3.5V). This detection module can provide different gain and coupling output methods according to customer requirements, making it very suitable for coherent detection systems such as coherent Doppler wind radar.

Feature

- Wavelength range: 900-1700nm (400-1100nm optional)
- 3dB bandwidth: DC-200MHz/350MHz
- High common mode rejection ratio: 30dB
- High gain: 38 × 103V/W (other gains can be customized)

Schematic diagram of coherent Doppler wind



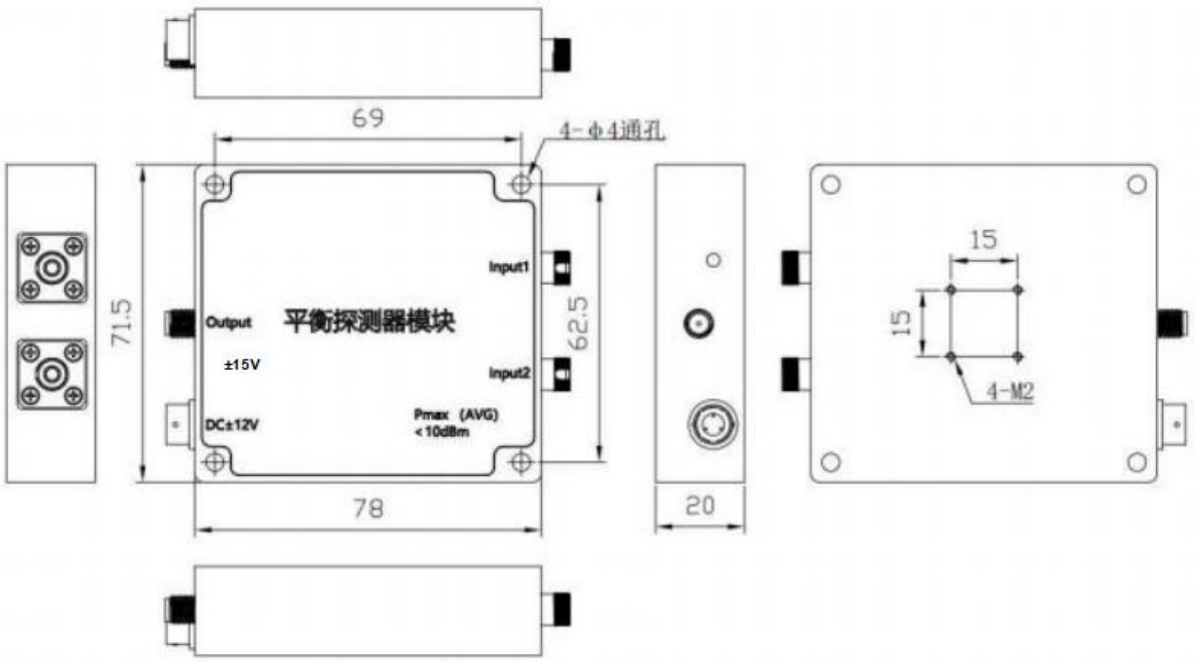
key metrics

Model	ROF-BPR-200M-A-FC-H-DC	ROF-BPR-200M-A-FC-DC	ROF-BPR-350M-A-FC-DC
Spectral response range	900-1700nm	900-1700nm	900-1700nm
Typical wavelength*	1310nm/1550nm	1310nm/1550nm	1310nm/1550nm
responsiveness	0.95A/W@1550nm	0.95A/W@1550nm	0.95A/W@1550nm
3dB bandwidth	DC-200MHz	DC-200MHz	DC-350MHz
Common mode rejection ratio CMRR	>25dB（30dB typ.）	>25dB（30dB typ.）	>25dB （30dB typ.）
Gain @ high impedance state	30×10^3V/W	20×10^3V/W	14×10^3V/W
Noise voltage	<20mV$_{RMS}$	<10mV$_{RMS}$	<10mV$_{RMS}$

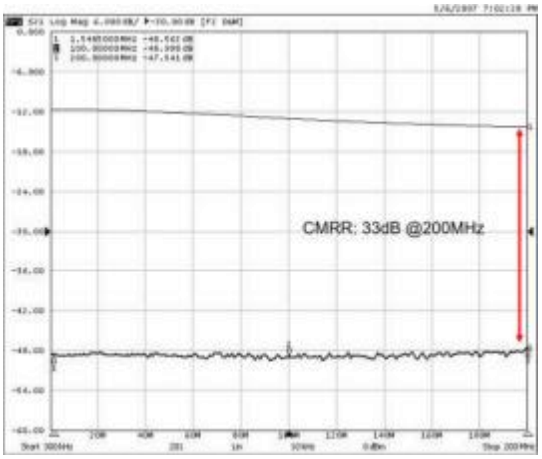
(RMS)			
sensitivity	-26dBm	-33dBm	-33dBm
Saturated optical power (CW)	-9dBm	-12dBm	-5dBm
Maximum output amplitude	3.5Vpp	3.5Vpp	3.5Vpp
Damage to optical power	10mW		

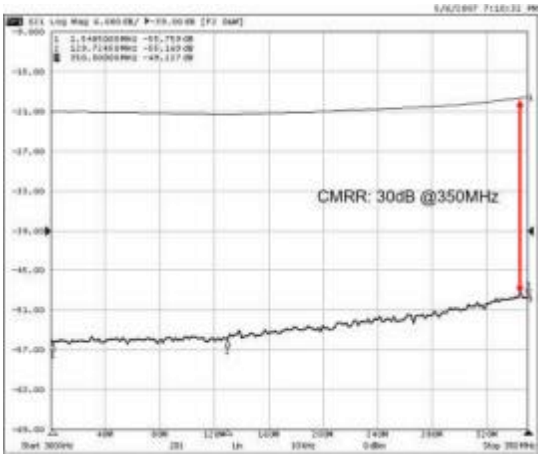
Working temperature range	-20~+70 ℃	
Working Voltage		DC ±15V
operating current		50mA
Input connector		FC
Output connector		SMA
output impedance		50 ohms
Output coupling method		AC coupling (DC optional)
Dimensions (mm)		78.5mm×71.5mm×20mm

Dimensions (mm)



CMRR Test (S21)





Gain adjustable balanced photodetector（DC~150MHz）

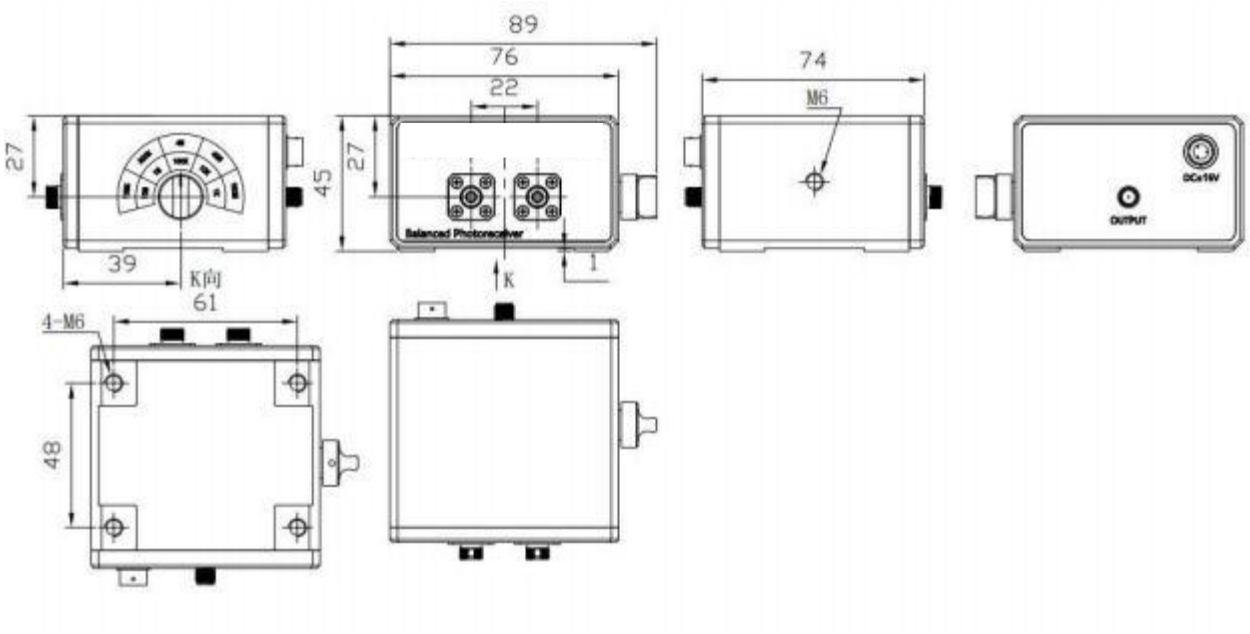
ROF-GBPR series gain adjustable balance detection module, supports up to 5 adjustable gain levels, different gains correspond to different bandwidths, customers can According to the actual light signal to be detected in the system, different levels of gain can be selected for flexible and convenient use.

Feature

- Wavelength response: 850-1650nm (400-1100nm optional)
- 3dB bandwidth: DC-150MHz
- Common mode rejection ratio:>25dB
- Adjustable gain: 5 adjustable gain levels

Project	SYP	ROF-GBPR-150M-A-DC	ROF-GBPR-150M-B-DC
Spectral response range	λ	850~1650nm	400~1100nm
detector type		InGaAs / PIN	Si/PIN
responsiveness	R	≥0.95@1550nm	≥0.5@850nm
3dB bandwidth	B	DC - 150, 45, 4, 0.3, 0.1 MHz	
Common Mode Rejection Ratio	CMRR	>25 dB	
Conversion gain @ high impedance state	G	10^3, 10^4, 10^5, 10^6, 10^7 V/A	
Noise voltage	V_{RMS}	DC - 0.1 MHz: 30mV_{RMS} DC - 0.3 MHz: 12mV_{RMS} DC - 4.0 MHz: 10mV_{RMS} DC - 45 MHz: 6mV_{RMS} DC - 150 MHz: 3mV_{RMS}	DC - 0.1 MHz: 30mV_{RMS} DC - 0.3 MHz: 12mV_{RMS} DC - 4.0 MHz: 10mV_{RMS} DC - 45 MHz: 6mV_{RMS} DC - 150 MHz: 3mV_{RMS}
sensitivity	S	DC - 0.1 MHz: -60dBm DC - 0.3 MHz: -47dBm DC - 4.0 MHz: -40dBm DC - 45 MHz: -30dBm DC - 150 MHz: -23dBm	DC - 0.1 MHz: -57dBm DC - 0.3 MHz: -44dBm DC - 4.0 MHz: -37dBm DC - 45 MHz: -27dBm DC - 150 MHz: -20 dBm
Saturated optical power (CW)	Ps	DC - 0.1 MHz: -33dBm DC - 0.3 MHz: -23dBm DC - 4.0 MHz: -13dBm DC - 45 MHz: -3dBm DC - 150 MHz: 0dBm	DC - 0.1 MHz: -30dBm DC - 0.3 MHz: -20dBm DC - 4.0 MHz: -10dBm DC - 45 MHz: 0dBm DC - 150 MHz: 3dBm
Working Voltage	U	DC ±15V	
operating current	I	<100mA	
Maximum input optical power	P_{max}	10mW	
output impedance	R	50Ω	
Operating Temperature	T_w	-20-70℃	
Storage temperature	T_s	-40-85℃	
Output coupling method	-	AC coupling (DC optional)	
Input optical connector	-	FC/APC	
Output electrical interface	-	SMA	

Dimensions (mm)



Product Selection Guide

ROF	XXX	XX	X	XX	XX	X
	BPR--- Fixed gain balanced photodetector GBPR— Gain adjustable balanced photodetector	-3dB bandwidth: 10M---10MHz 80M---80MHz 200M---200MHz 350M---350MHz 400M---400MHz 1G---1GHz 1.6G---1.6GHz 2G---2GHz 2.5G---2.5GHz	Operating wavelength: A---850~1650nm (1550nm test) B---320~1000nm (850nm test) A1---900~1400nm (1064nm test） A2---1200~1700nm (1310nm 或 1550nm test)	Input type: FC - Fiber Optic Coupling FS----Free space	Coupling type: DC---DC coupling AC---ACcoupling	Gain type: Empty - Normal gain H - High gain requirement

Note:

1. 10M, 80MHz, 200MHz, 350MHz, and 400M bandwidth detectors support operating bands A and B; coupling types AC and DC coupling are optional.
2. 1GHz, 1.6GHz, 2GHz, 2.5GHz support working bands A1 and A2; coupling type only supports AC coupling.
3. Adjustable gain (150MHz) supports operating bands A and B; both AC and DC coupling types are optional.
4. Example: ROF-BPR-350M-A-FC-AC: 350MHz fixed gain balanced detection module, working wavelength 1550nm (850-1650nm), AC coupled output.

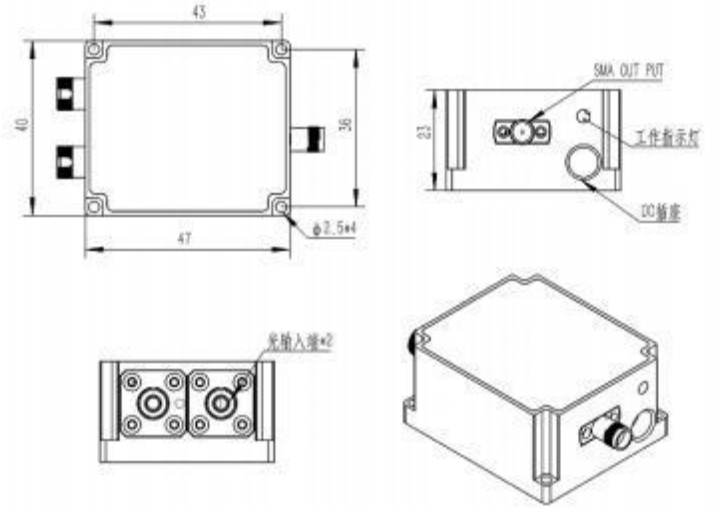
Mini type high gain balanced photodetector（ROF-BPR-10M-B-FC）

The mini balanced detection module optimized for ophthalmic OCT systems has high gain and low noise characteristics. Through wavelength optimization, it achieves high common mode rejection ratio and high output voltage amplitude (~12V). It has been widely used in medical OCT equipment and can also be optimized for wavelengths of 1310nm and 1550nm.

Feature

- Typical wavelengths: 850/1064/1310/1550nm
- 3dB bandwidth: 10MHz
- High common mode rejection ratio:>25dB
- High gain: 150 × 103V/W

model	model	model
Spectral response range	Spectral response range	Spectral response range
Typical wavelength	Typical wavelength	Typical wavelength
responsiveness	responsiveness	responsiveness
3dB bandwidth	3dB bandwidth	3dB bandwidth
Common mode rejection ratio CMRR	Common mode rejection ratio CMRR	Common mode rejection ratio CMRR
Gain @ RF output	Gain @ RF output	Gain @ RF output
Noise voltage (RMS)	Noise voltage (RMS)	Noise voltage (RMS)
Saturated optical power (CW)	Saturated optical power (CW)	Saturated optical power (CW)
Maximum output amplitude	Maximum output amplitude	Maximum output amplitude
Damage to optical power	Damage to optical power	
Working temperature range	Working temperature range	
Working Voltage	Working Voltage	
operating current	operating current	
Input connector	Input connector	
Output connector	Output connector	
output impedance	output impedance	
Output coupling method	Output coupling method	
Dimensions (mm)	Dimensions (mm)	


43
40
36
47
φ2.5*4
SMA OUT PUT
工作指示灯
DC插座
光输入端*2