

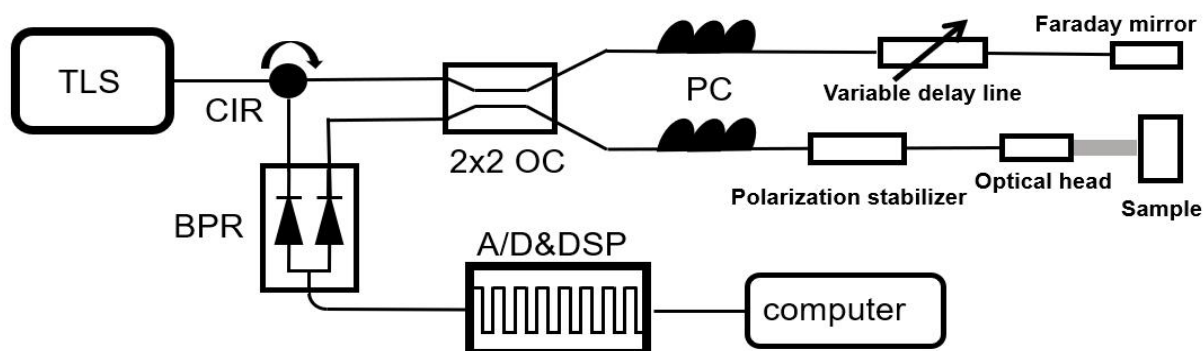
2.5GHz high-bandwidth fixed-gain Balanced Photodetector

Description

The high-gain balanced detection module optimized for the third-generation OCT (SS-OCT) system features high gain and low noise. It achieves a high common-mode rejection ratio and high output voltage amplitude through wavelength optimization. This detector has a bandwidth of up to 2.5GHz and is optimized for wavelengths of 1064nm and 1310nm.

Feature

- Wavelength: 850/1064/1310/1550nm
- 3dB bandwidth: 2.5GHz
- Common-mode rejection ratio: > 25dB
- High gain



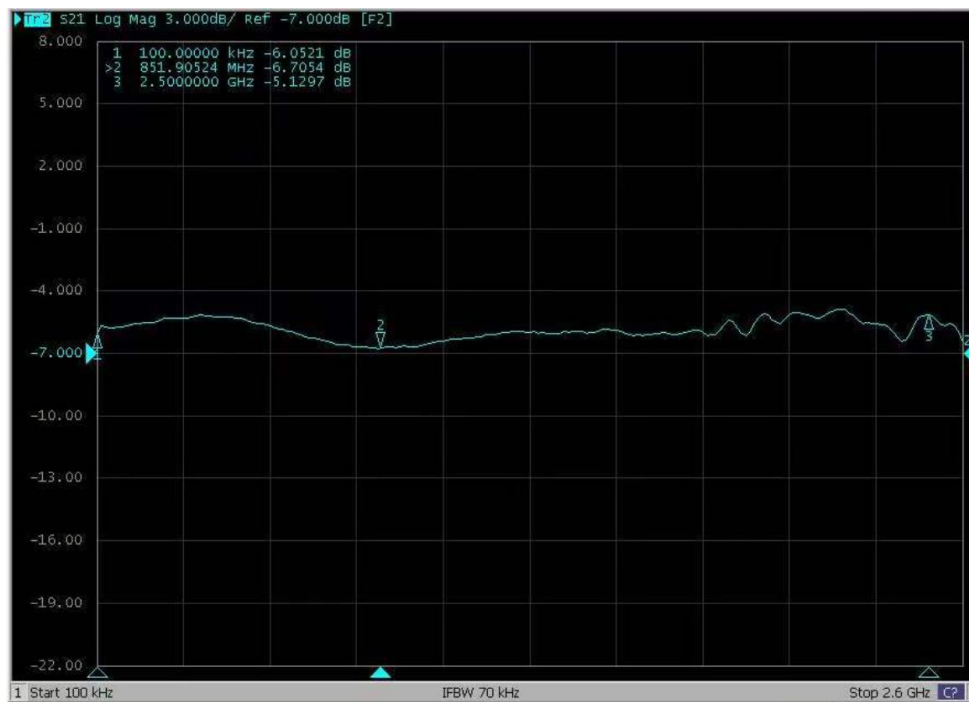
Parameter

model	R-BPR-2G-B-FC	R-BPR-2.5G -A1-FC	R-BPR-2.5G -A2-FC
spectral response range	500~880nm	900-1400nm	1200-1700nm
Typical wavelength	850nm	1064nm	1310nm/1550nm
responsiveness	0.45 A/W@850nm	0.7A/W@1064nm	0.9A/W@1550nm
3 dB bandwidth	50K~2GHz	50K~2.5GHz	50K~2.5GHz
Common-mode rejection ratio (CMRR)	>25dB(30dB typ.)	>25dB(30dB typ.)	>25dB(30dB typ.)
Gain @ High Impedance State	$6.5 \times 10^3 \text{ V/W}$	$10.1 \times 10^3 \text{ V/W}$	$14.5 \times 10^3 \text{ V/W}$
Noise voltage (RMS)	$< 20 \text{ mV}_{\text{RMS}}$	$< 6 \text{ mV}_{\text{RMS}}$	$< 8 \text{ mV}_{\text{RMS}}$
Maximum output amplitude @50 Ω	5.5 Vpp	5.5Vpp	5.5Vpp
Damage optical power	10mW		



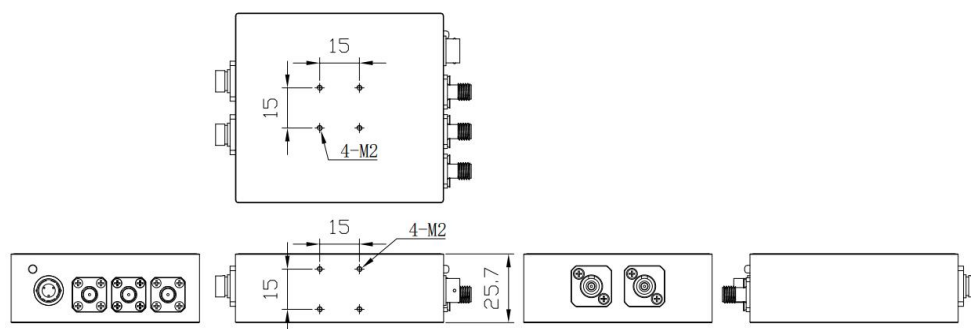
Operating temperature range	-20~+70 °C
Working Voltage	DC $\pm 12V$ (Equipped with a low-noise power adapter)
operating current	350mA
Input connector	FC
Output connector	SMA
output impedance	50 ohms
Output coupling method	AC coupling
External dimensions (mm)	78.5mm×71mm×25.7mm

Characteristic curve





Size



Balanced
Photodetector



$\pm 12V$ Power adapter