

Gain adjustable balance detection module (DC~150MHz)

ROF-GBPR Series gain adjustable balance detection module, support up to 5 gear gain adjustable, different gain corresponding to different bandwidth, customers can choose different gear gain according to the actual optical signal to be detected, flexible and convenient use.

Feature

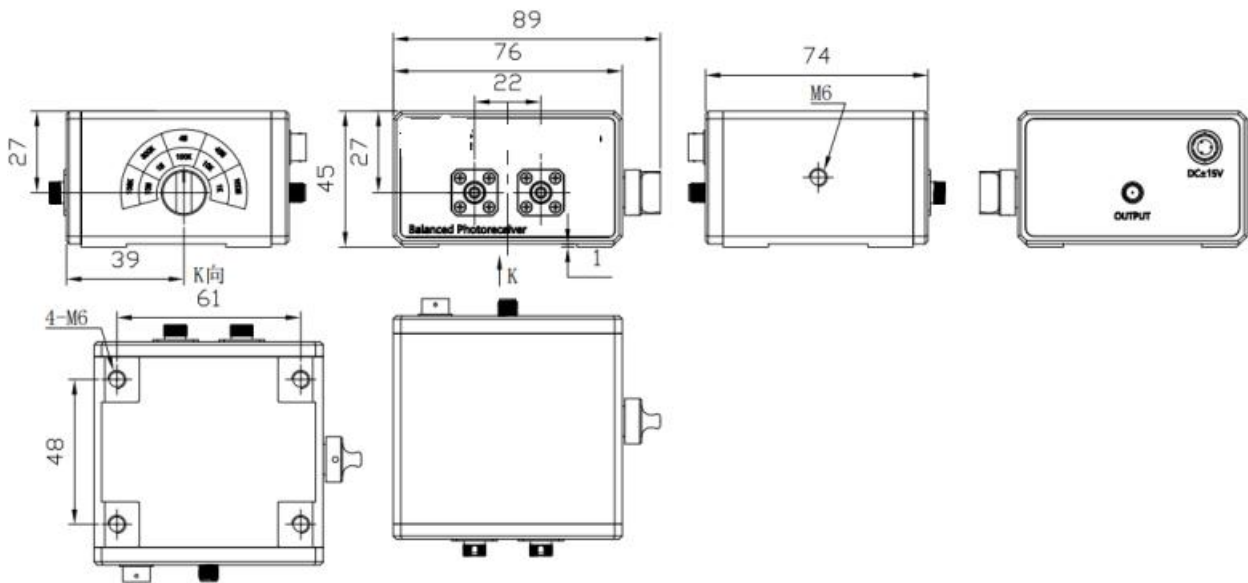
- Wavelength response: 850-1650nm (400-1100nm optional)
- 3dB bandwidth: DC-150 MHz
- common-mode rejection ratio: > 25dB
- Gain adjustable: Five gain gears are adjustable



Parameters	symbol	ROF-GBPR-150M-A-DC	ROF-GBPR-150M-B-DC
Spectral response range	λ	850~1650nm	400~1100nm
Detector type		InGaAs / PIN	Si/PIN
responsivity	R	$\geq 0.95@1550\text{nm}$	$\geq 0.5@850\text{nm}$
3dB bandwidth	B	DC - 150, 45, 4, 0.3, 0.1 MHz	
Common mode rejection ratio	CMRR	>25dB	
Conversion gain @ high resistance 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)	P_s	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
Operating voltage	U	DC $\pm 15\text{V}$	
Working current	I	<100mA	

Maximum input optical power	P_{max}	10mW
Output impedance	R	50Ω
Operating temperature	T_w	-20-70°C
Storage temperature	T_s	-40-85°C
Output coupling mode	-	Default DC coupling (AC coupling optional)
Input optical connector	-	FC/APC
Electrical output interface	-	SMA

Dimensions (mm)



Ordering information

ROF	XXX	XX	X	XX	XX	X
	BPR-- Fixed gain balanced detector	-3dB bandwidth: 10M---10MHz 80M---80MHz 200M---200MHz	Operating wavelength: A---850~1650nm (1550nm test)	Input type: FC---Fiber coupling FS---Free space	Coupling type: DC---DC Coupling	Gain type: Null-- Normal gain H--High



	GBPR-- Gain adjustable balance detector	350M---350MHz 400M---400MHz 1G---1GHz 1.6G---1.6GHz	B---320~1000nm (850nm test) A1---900~1400nm (1064nm test) A2---1200~1700nm (1310nm or 1550nm test)		AC---AC Coupling	gain requirement
--	---	--	--	--	---------------------	---------------------

Note:

1, 10 M, 80MHz, 200MHz, 350MHz and 400 MHz bandwidth detectors support operating bands A and B; Coupling Type Both AC and DC coupling are optional.

2, 1GHz, 1.6GHz, support working bands A1 and A2; Coupling type Only AC coupling is supported.

3, the gain is adjustable (150MHz) to support the working band A and B; Coupling Type Both AC and DC coupling are optional.

4, example, ROF-BPR-350M-A-FC-AC: 350MHz fixed gain balanced probe module, operating wavelength 1550nm(850-1650nm), AC coupled output.