

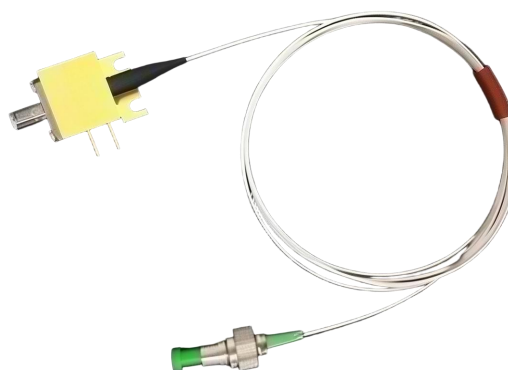


ROF-PD-70 ultra wideband Photodetector

ROF-PD-70 is a PIN based ultra wideband photodetector that achieves photoelectric conversion function. The port has built-in bias-T and $50\ \Omega$ impedance matching, with a typical bandwidth of 3 dB at 67 GHz, an effective bandwidth of ≥ 70 GHz, and a responsivity of ≥ 0.6 A/W. This product is suitable for high-speed instrument detection, microwave photon link and other technical fields.

Feature

- Ultra high bandwidth
- High light responsivity
- Low dark current
- Low port standing wave



Maximum absolute rated value

parameter name	Sym	Rated value	Unit
optical power	P_s	10	dBm
Positive bias voltage	V_r	5	V
Operating Temperature	T_{op}	-40 ~ +70	°C
Storage temperature	T_{stg}	-55 ~ +85	°C

Parameter

Note: Unless otherwise specified, the test temperature is 25 °C.

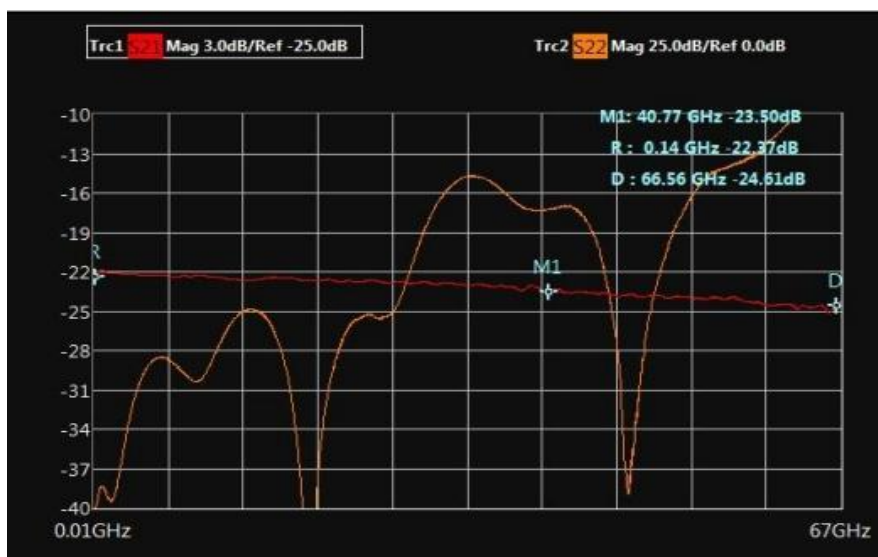
parameter	Sym	Test conditions	Min	Typ	Max	Unit
Operating Wavelength	λ		1260	1550	1570	nm
Responsiveness	R	$P_{光}=0\text{dBm}$, $V_r=+2\text{ V}$, $\lambda=1550\text{ nm}$		0.6		A/W
dark current	I_d	$V_r=+2\text{ V}$		20	60	nA



3 dB bandwidth	BW	$P_{\text{光}}=0\text{dBm}$, $V_r=+2\text{ V}$, $\lambda=1550\text{ nm}$	60	67		GHz
RF reflection loss	S22	$P_{\text{light}}=0\text{dBm}$, $V_r=+2\text{V}$, within the scope of 10M-67GHz		-10	-8	dB
Saturated optical power	P_{sat}	$V_r=+2\text{ V}$, $\lambda=1550\text{nm}$		7		dBm

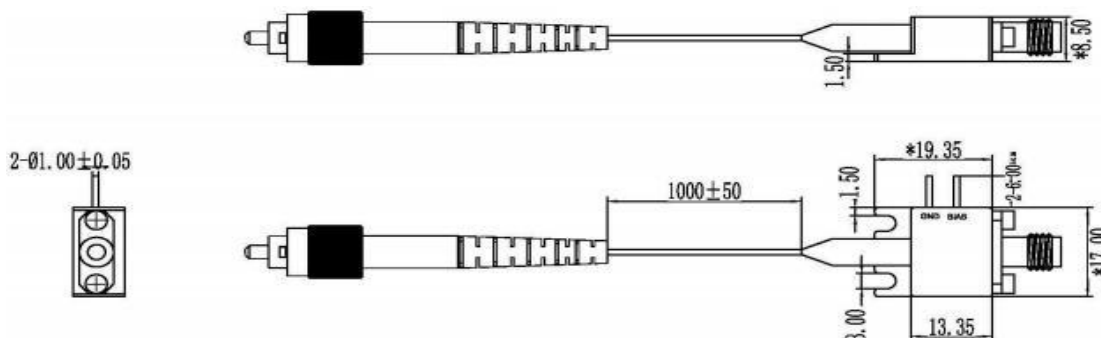
Characteristic curve

Typical performance curve



Size

Dimensions and Pin Definitio





PIN	Functional Description
BIAS	+1-3V (recommended+2V)
GND	grounding
Fiber optic interface	SMF fiber/PMF fiber, FC/APC connector, Pin ≤ 10dBm (recommended ≤ 0-7dBm)
RF interface	1.85mm, mother

Precautions for use

- 1.Necessary ESD protection measures should be taken to avoid electrostatic damage.
- 2.Do not directly pull the tail fiber to avoid damaging the device.
- 3.Pay attention to keeping the optical connector clean to avoid contamination with dust or other foreign objects that may affect its performance.

Ordering

ROF-PD-70	PD	M	-70	-XX
	PD: photodetector	Encapsulation	Effective Bandwidth 70 represents 70 GHz	Tail fiber type -SM stands for Single Mode Fiber -PM stands for Polarization maintaining fiber