

RFoF-RX (30MHz & 5KHz~12GHz)

Wideband RF over Fiber Receiver Module

PRODUCT DESCRIPTION

The RFoF series delivers high-performance, cost-effective solutions for Wideband RF signal transmission over fiber. Designed to meet the demands of diverse application scenarios, these modules enable low-loss, high-linearity analog transport across extended distances. Leveraging expertise in microwave photonics, the company is committed to close collaboration with telecom operators, system integrators, and solution partners to jointly develop advanced RFoF products and customized solutions for evolving industry needs.

RFoF RX is a Wideband RF fiber optic receiver module with a maximum cutoff frequency of 12GHz. The product adopts a high linearity PIN light receiving tube. Due to avoiding the limitations of coaxial cables, the transmission quality and reliability of signals have been greatly improved. It can be widely used in satellite communication, Beidou/GPS signal transmission, remote antennas, and long-distance analog fiber optic communication.



PRODUCT FEATURES

- ▶ High optical sensitivity with low noise figure
- ▶ Wide dynamic range with superior linearity
- ▶ Compact form factor and ultra-low power consumption
- ▶ Frequency support up to 12 GHz (optional 20 GHz extended version)
- ▶ Competitive cost-performance ratio

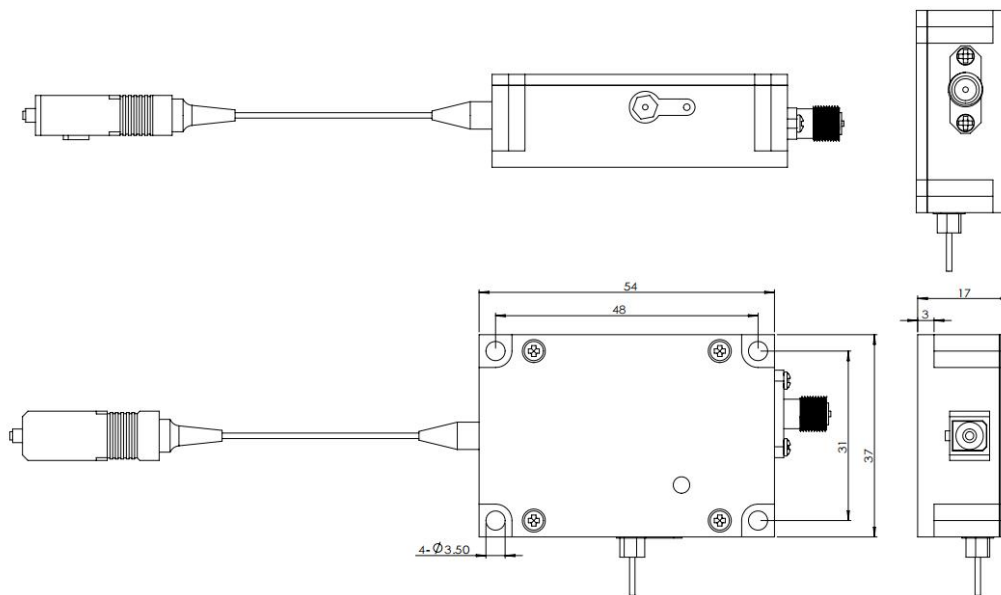
MAIN APPLICATION

- ▶ Secure RF communication links
- ▶ GNSS (Beidou/GPS) signal distribution
- ▶ Microwave photonics and analog optical links
- ▶ Wideband RF signal interception and monitoring systems

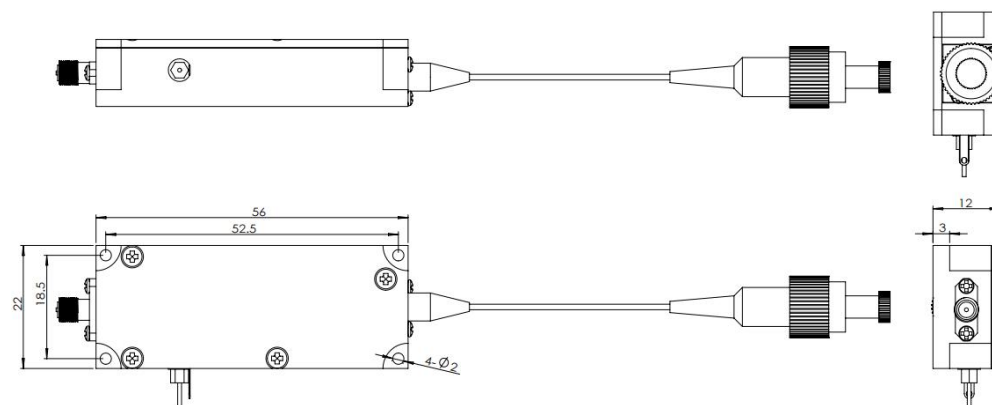
TECHNICAL INDEX

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical Feature	Receiving wavelength range	(nm)	1270		1610	
	Receive specific wavelengths	(nm)		xxxx		Built-in CWDM
	Input optical power range (Analog link input range, typical)	(dBm)	-10		+3	Analog Signal
	Responsiveness	(A/W)	0.85			
	Light Reflection Loss	(dB)	55			APC
	Fiber Connector		LC/APC, FC/APC, SC/APC			Optional
RF Feature	-3dB Minimum Cutoff Frequency	(MHz)	30			General
		(KHz)		5		Customized
	-3dB Maximum Cut-Off Frequency	(GHz)		1.0		RX01
				3.0		RX03
				6.0		RX06
				10.0		RX10
				12.0		RX12
	In-Band Flatness(FL)	(dB)		±0.5	±0.75	RX01
				±1.0	±1.5	RX03
				±1.5	±2.2	RX06
				±2.2	±2.8	RX10~12
	RF Return Loss	(dB)		-16	-12	RX01
				-12	-10	RX03
				-10	-7	RX06
				-10	-5	RX10~12
	SFDR			110@6GH		
	RF Output Power (TX)	(dBm)		5		
	RF Working Impedance	(Ω)		50		
	RF Connector		SMA-F			
General Feature	Supply Voltage (DC)	(V)		+12		
	Working Current	(mA)		200		
	Operation Temperature	(℃)	-20		+75	
	Storage Temperature	(℃)	-40		+85	
	Relative Humidity	(%)	5		95	
	Dimensions (WxDxH)	(mm)	37x54x17			Type-A
			22x56x12			Type-B

DIMENSION



Type-A



Type-B

MODEL EXPLANATION

RFoF - RX □□ / □ - □□□□ - □□ - □

Product Series	Product Type		Maximum Frequency	Minimum Frequency		Receiving Wavelength		Fiber Connector		Module Appearance	
RF Fiber Optic Link Products	RX	Optical Receiver	01	1GH	G	30MHz	1216	1270~1610nm	LA	LC/APC	A
	TX	Optical Transmitter	03	3GH	M	1MHz	XXXX	CWDM	SA	SC/APC	B
	TR	Integrated receiver and transmitter	06	6GH	L	5kHz			FA	FC/APC	
	RT	Optical amplifier and wavelength conversion	10	10GH							
			12	12GH							