

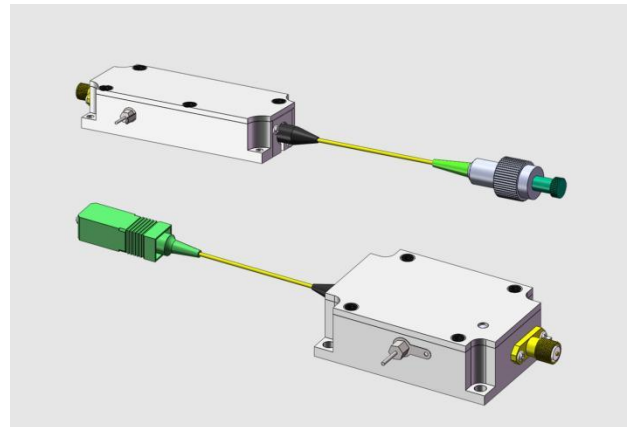
RFoF-TX (30MHz & 5KHz~12GHz)

Wideband RF over Fiber Transmitter 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 TX is a Wideband RF fiber optic transmission module with a maximum cutoff frequency of 12GHz. The product uses a high linearity DFB laser for direct modulation. 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

- ▶ Multiple CWDM wavelengths to choose from
- ▶ Analog signal, direct modulation
- ▶ Ultra small and low-power consumption
- ▶ The transmitting module adopts a high linearity DFB laser
- ▶ The highest frequency can be selected as 12GHz or higher at 20GHz
- ▶ Excellent cost price advantage

MAIN APPLICATION

- ▶ Remote antenna, distributed antenna system
- ▶ Long distance analog fiber optic communication
- ▶ 4G/5G/WiMAX fiber optic repeater (tunnel, tunnel)
- ▶ Secure and encrypted RF communication
- ▶ GNSS (Global Navigation Satellite System)
- ▶ OFDM fiber optic transmission system
- ▶ Microwave optoelectronics
- ▶ Analog RF-over-Fiber links in satellite uplink/downlink chains
- ▶ Wideband optical repeater systems for tunnels, remote sites
- ▶ Telecom-grade DAS (Distributed Antenna System) front haul

TECHNICAL INDEX

Performance				Index			Supplement
				Min.	Typ.	Max.	
Optical Feature	Working Wavelength	(nm)		1310		O-Band	
				1550		C-Band	
			1270	xxxx	1610	CWDM	
	Output Optical Power	(dBm)		6		Optional 10 dBm	
	Edge touch inhibition ratio	SMSR (dB)		45			
	Output optical isolation	ISO (dB)	30				
	Light reflection loss	(dB)		55		APC	
Fiber Connector			SC/APC		LC/APC, FC/APC Optional		
High wavelength stability	(pm)			1	T-Type		
RF Feature	-3dB Minimum Cutoff Frequency	(MHz)	30			General	
		(KHz)		5		Customized	
	-3dB Maximum Cut-Off Frequency	(GHz)		1.0		TX01	
				3.0		TX03	
				6.0		TX06	
				10.0		TX10	
				12.0		TX12	
	In-Band Flatness (FL)	(dB)		±0.5	±0.75	TX01	
				±1.0	±1.5	TX03	
				±1.5	±2.2	TX06	
				±2.2	±2.8	TX10~12	
	RF Return Loss	(dB)		-16	-12	TX01	
				-12	-10	TX03	
				-10	-7	TX06	
			-10	-5	TX10~12		
SFDR			110@6GHz				
RF Output Power ()	(dBm)	-5		+3			
RF Working Impedance	(Ω)		50				
RF Connector			SMA-F				
General Feature	Supply Voltage (DC)	(V)		+12			
	Working Current	(mA)		500			
	Operation Temperature	(°C)	-20		+65		
	Storage Temperature	(°C)	-40		+85		
	Relative Humidity	(%)	5		95		
	Dimensions (WxDxH)	(mm)	37x54x17			Type-A	
22x56x12			Type-B				

