

Rof-ROFBox Series

Analog broadband external modulation optical transceiver module

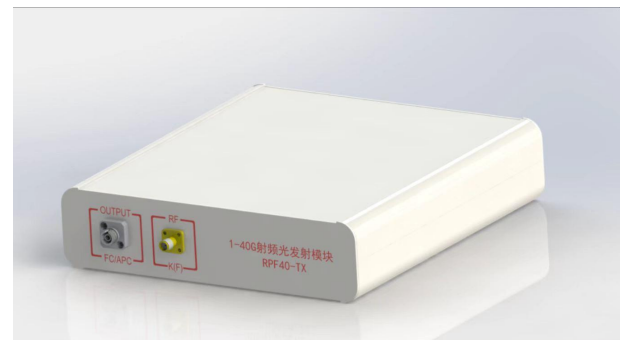
Rof-ROFBox series Analog broadband optical transceiver module, using external modulation mode, can provide RF signal optical transmission in the frequency range of 1-40 GHz, providing superior performance of linear fiber communication for a variety of analog broadband microwave applications. By avoiding the use of expensive coaxial cables or waveguides, the transmission distance limit is eliminated, greatly improving the signal quality and reliability of microwave communication, and can be widely used in remote wireless, timing and reference signal distribution, telemetry and delay lines and other microwave communication fields.

Feature

- High bandwidth 1 to 40GHz
- Excellent RF response flatness
- Wide dynamic range
- transparent working mode, applicable to a variety of signal coding, communication standards, network protocols
- The operating wavelength is 1550nm and 1310nm
- Integrates automatic power control (APC) and automatic temperature control (ATC) circuits
- Built-in high performance laser and optical amplifier module to achieve gain regulation and automatic control
- The built-in drive RF amplifier provides more application flexibility

Application

- Remote antenna
- Long distance analog fiber optic communication
- Military three-wave communication
- Tracking, Telemetry & Control (TT&C)
- Delay lines
- Phased array





Ordering information

Rof-ROFBox	XXXX	X	X	XX
Analog broadband optical transceiver module	Modulation bandwidth: 0118---1-18GHz 1840---18-40GHz 0140---1-40GHz	Packag: M---module D---desktop S---customization	Fiber type: P---Polarization maintaining S---Single mode	Optical fiber connector: FP---FC/PC FA---FC/APC SP---User assignment

*If you have special requirements, please contact our sales staff

Parameter

Argument	Test condition	Index		
		ROFBox-0118	ROFBox-1840	ROFBox-0140
Model number		ROFBox-0118	ROFBox-1840	ROFBox-0140
Operating wavelength (nm)		1310/1550	1550	1550
Operating Frequency (GHz)(S21)		1~18	18~40	1~40
Link gain (dB) (typical)	0dBm input	0	0	0
In-band flatness (dB)	0dBm input	< ±2	< ±3	< ±6
Electric Reflection (dB) (S11/S22)		< -9		
Standing wave ratio (dB)		< 2 (typical1.5)		
P-1dB input (dBm)	—	> 15		
Fiber type	—	SM 或 PM		
Optical fiber connector	—	FC/APC		
Radio frequency interface	—	SMA-K	2.92-K	2.92-K
Input/output impedance (Ω)	Full bandwidth	50		
Operating ambient temperature	—	-40°C ~ +70°C		



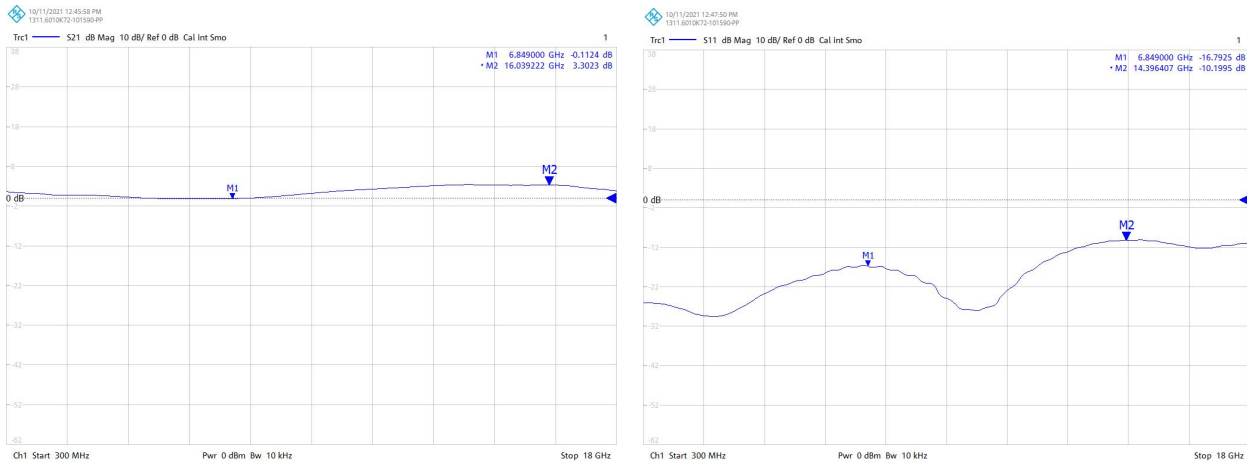
Storage ambient temperature	—	-55°C ~ +85°C
Power supply	—	Built-in battery or adapter power supply
Supply voltage	—	DC12V or AC220V

Limit Conditions

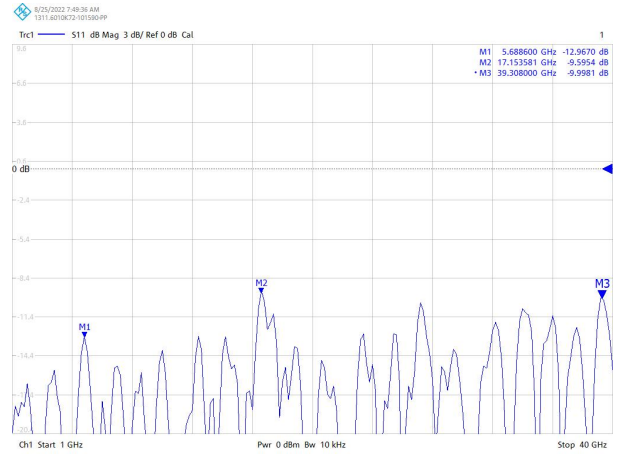
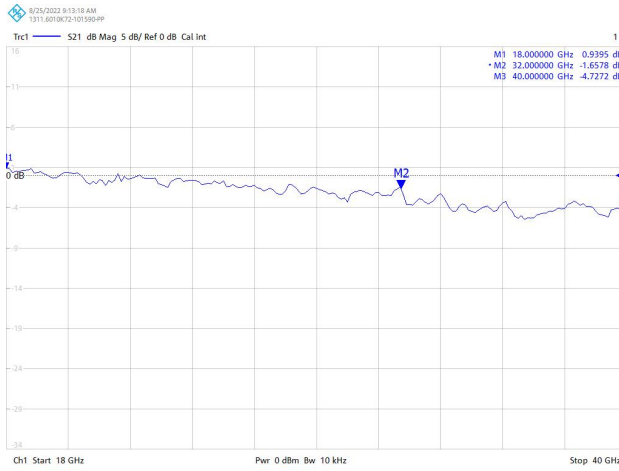
Argument	Symbol	Unit	Min	Typ	Max
Input RF power	dBm			20	
Operating temperature	°C	-40		+70	
Storage temperature	°C	-40		+85	
Operating relative humidity	%	5		95	

Note: Environmental requirements such as high and low temperature need to be put forward when ordering

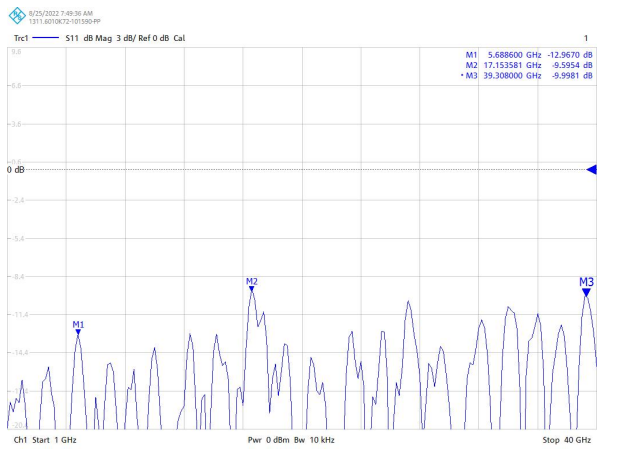
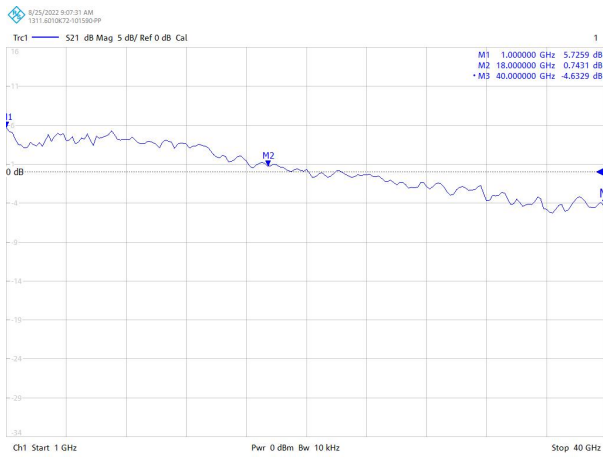
Characteristic curve



ROFBox0118, 1-18G, S21&S11 curve



ROFBox1840, 18-40G, S21&S11 curve



ROFBox0140, 1-40G, S21&S11 curve