



Mini 0.05~6GHz Analog Wideband Transceiver Module

The Mini analog wideband transceiver module(Fiber Optic Transmitter) is a low-cost, high-performance analog wideband transceiver with a very wide dynamic range, designed specifically for optical fiber RF applications. A pair of transceivers will create two-way RF to optical and optical to RF conversion and transmission links that can provide high spurious free dynamic range(SFDR), operating at frequencies from 0.5GHz to 6GHz. The standard optical connector is FC/APC for low back reflection applications, and the RF interface is via a 50 ohm SMA connector. The receiver uses high performance InGaAs photodiode, the transmitter uses linear optical isolation FP/DFB laser, and the optical fiber uses 9/125 μm single-mode fiber with working wavelength of 1.3 or 1.5 μm .

Features

- Bandwidth response 50MHz to 6GHz
- Tight cast metal case
- High SFDR
- flat frequency response
- 1.3 and/or 1.5 μm with isolated FP/DFB

Applications

- WiMAX / 4G LTE
- 5G communication
- Shipborne radio frequency distribution
- satellite earth station



Parameter

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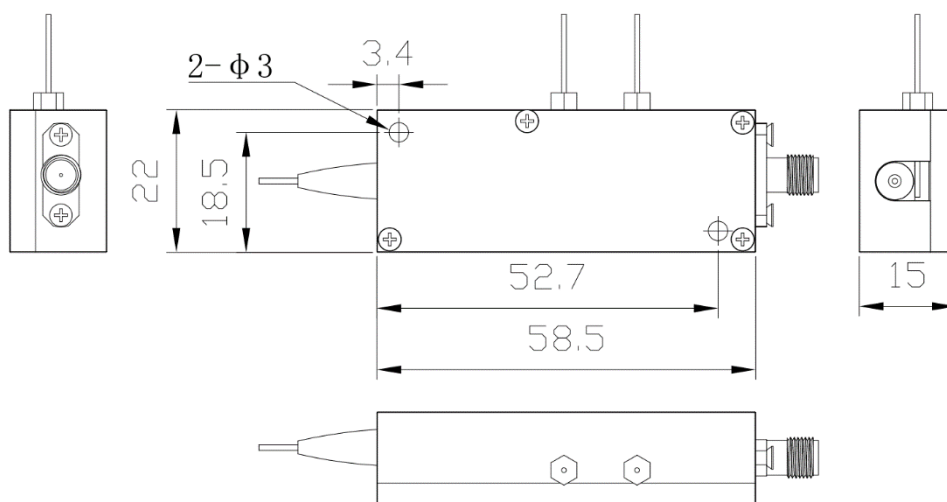
Parameter	Symbol	Min	Typ	Max	unit
Supply voltage	VCC	4.5	5	4.5	Volts
Supply current (total current)	ICC		100		mA
Laser output power			2	4	mW
Transmitter operating wavelength			1310/1550		nm
Receiver operating wavelength			1310/1550		nm
High frequency cut-off	HFC		6		GHz
Low frequency cutoff	LFC		50		MHz
Frequency response(0.6– 6GHz)			± 1.5	± 2	dB
Input rf power			-5		dBm
input/Output impedance	Z		50		Ohms
Standing wave ratio VSWR			1.5		dB
Rf link gain		-5	0		dB
Rf port		SMA			
Optical fiber port		Single-mode fiber 900umProtective casing FC/APC			



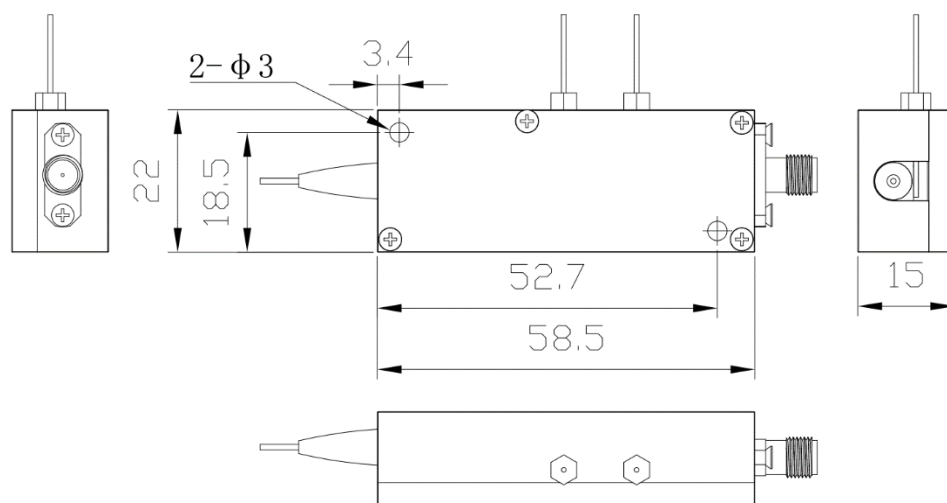
Limit Conditions

Parameter	Symbol	Min	Max	unit
Storage temperature	T _s	-40	85	°C
Operating temperature	T _o	-25	65	°C
DC Supply voltage	V _{DP}	4.5	5.5	V
Maximum RF input(Tx)			10	dBm
Maximum optical input (Rx)			4	mW

Mechanical Diagram(mm)



(a) Transmitting module



(b) Receiving module



Order information

ROF- MINI	XX	XX	X	X
Mini analog broadband optical transceiver module	Operating wavelength: 13- 1310nm 15- 1550nm	Modulation bandwidth: 01---10~ 1200MHz 02---50-3000MHz 03---50~6GHz	Encapsulation: M---module	Connector: FA- --FC/APC SP---User specified