



Mini 0.6~6GHz 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 0.6GHz 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 1.5μm.

Features

- Bandwidth response 0.6GHz to 6GHz
- Tight cast metal case
- High SFDR
- flat frequency response
- 1.3 and/or 1.5μm with isolated FP/DFB

Applications

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



Parameter

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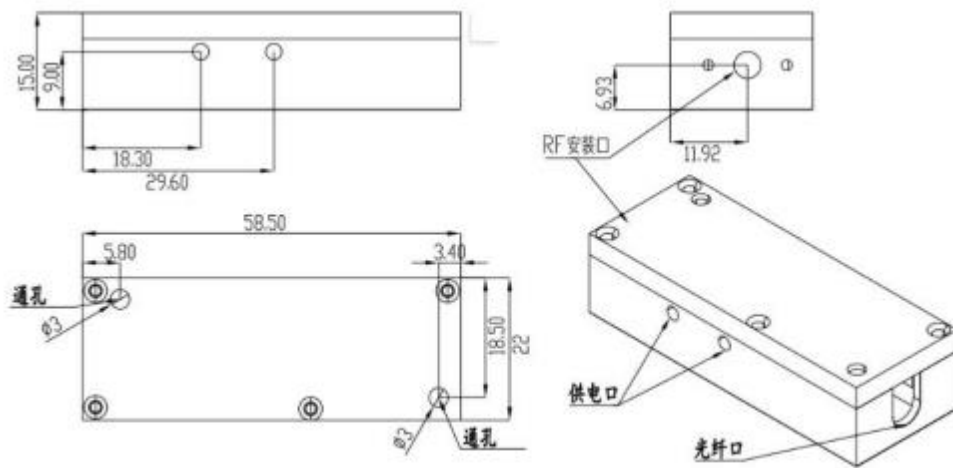
| Parameter | Symbol | Min | Typ | Max | unit |
|----------------------------------|--------|--|-----------|-----|-------|
| Supply voltage | VCC | 9 | 12 | 15 | Volts |
| Supply current (total current) | ICC | | 100 | | mA |
| Laser output power | | | 2 | 4 | mW |
| Transmitter operating wavelength | | | 1310/1550 | | nm |
| Receiver operating wavelength | | | 1310/1550 | | nm |
| High frequency cut-off | HFC | | 0.6 | | GHz |
| Low frequency cutoff | LFC | | 6 | | GHz |
| 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 900um Protective casing FC/APC | | | |



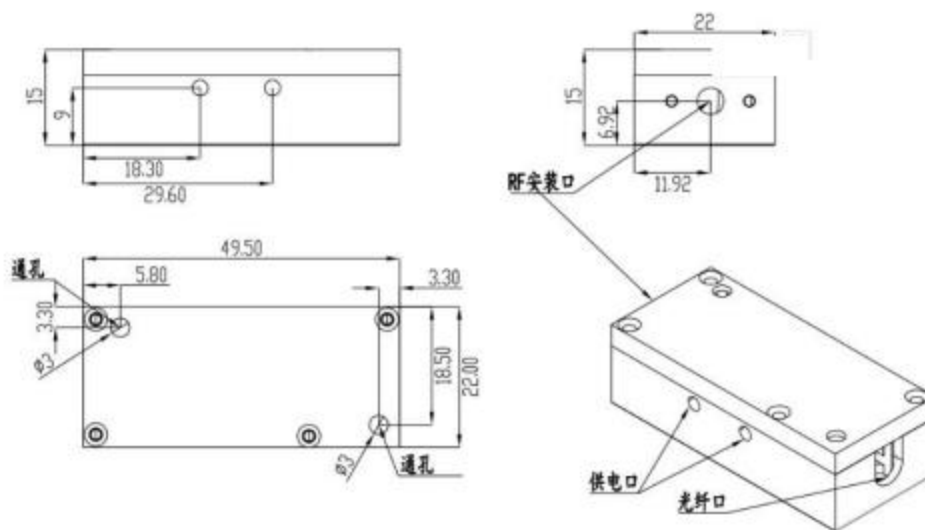
Limit Conditions

| Parameter | Symbol | Min | Max | unit |
|----------------------------|-----------------|-----|-----|------|
| Storage temperature | T _s | -40 | 85 | °C |
| Operating temperature | T _o | -25 | 65 | °C |
| DC Supply voltage | V _{DP} | 9 | 15 | 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---0.5~ 1200MHz 02---50-3000MHz 03---0.6~6GHz | Encapsulation: M---module | Connector: FA- --FC/APC SP---User specified |