



## RF Over Fiber 10-1500MHz Transmit, Receive



### Applications:

- Telecommunication
- Antenna remoting , long RF links via fiber
- Satcom
- GPS
- Radio Telescopes
- Distributed Antenna

### Key features:

- Best Cost Performance
- Frequency Range: 10-1500 MHz
- Compact unit
- Can be installed also in 1U
- Lightweight and small size
- An Outdoors Version

Our Analog RFOF modules convert RF signals to optical signals and back. One unit has an optical transmitter converts RF to Optical signal, and second receiver unit converts Optical to RF signal. The two units are connected by an optical fiber of the customer.

Our RF Over Fiber modules (RFOF) are suitable for telecommunications and radar applications.

- Satellite, Point-to-Point antennas can be connected from several meters to many kilometers away from the control room.
- Base stations can be connected through fiber to remote sector antennas.
- Broadcasters can easily distribute their full RF streams over fiber to remote locations, therefore eliminating the need for complex equipment to be installed in far and hard to reach locations.
- With our wide-band units, cable operators can centrally locate their broadcasting equipment, and connect the RF through fiber to the remote location, thus reducing significantly the CAPEX and OPEX of their networks.
- Radar system houses can easily connect remote antenna elements using economical fiber.
- Phased array antennas can also use fiber to connect to their RF systems

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### Order Examples: RRFOF10-1500M-Tx-Rx-z17

Description: (RF Over Fiber, 10-1500MHz, Transmit, Receive)

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## RF Over Fiber-10-1500MHz, Transmit, Receive RRFOF-10-1500M-Tx-Rx -z17

Parameter	Unit	
<b>RF Tx-Rx Link</b>		
Frequency Range (1)	MHz	100 – 1,500
RF Gain	dB	7.5
Gain Flatness (1)	dB	+/-1.5
1dB input compression point	dBm	-5
VSWR	-	2:1
RF input signal range	dBm	(-65) - (-5)
Maximum input level	dBm	10
Noise Figure (2)	dB	28
Spurious signals (3)	dB	-70
Input and output impedance	Ohm	50
<b>Optical and Electrical (Tx, Rx)</b>		
Laser diode operating wavelength	nm	1.31±0.01
Receiver Photodiode operating wavelength	nm	1.2 – 1.65
Optical Power	dBm	1.5
Optical Connectors	-	FC/APC
RF input and output connectors	-	SMA
Electrical Connectors (4)		DB9
Power (4)	VDC	12
Current consumption at 5VDC (Tx unit)	A	0.1
Current consumption at 5VDC (Rx unit)	A	0.05
LED status indicators (Tx./Rx.)	-	Green
<b>Mechanical and Environmental (Tx, Rx)</b>		
Dimensions of Transmitter	mm	80*55*22
Dimensions of Receiver	mm	80*55*22
Operating temperature range (Trans./ Rec.)	°C	-10 to 55
Storage Temperature range (Trans./Rec.)	°C	-40 to +85

- (1) Maximum frequency is 2700 MHz  
 (2) Can be improved by high gain pre amplifier  
 (3) Excluding in-band harmonics.  
 (4) DB-9 pin layout table below.  
 (5) DB-9 female adaptor to 110/220 D AC adaptor is optional.

Pin #	Value	Usage
1+2	+12VDC	Operating voltage for RFoF Tx and Rx
3	NC	Not Connected
4+5	0	Ground
6	EN(TX)	for turn off externally the RFoF unit by +5VDC input
7	LED OUT	for customer's external LED (useful for integrators)
8+9	NC	Not connected

**D9 Male Layout**

