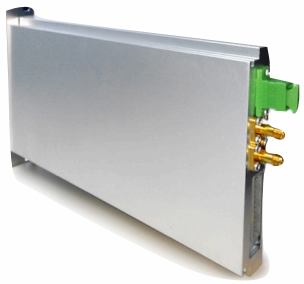
RF Optic
Optical RF Solutions

RF over Fiber | Multi Links Series



Applications:	Key features:
Satcom	Frequency Range: 0.1-2.4 GHz
GPS	Wide Dynamic Range
Radio Telescopes	Remote management
Distributed Antenna	Option for 2:1 Redundancy mechanism
Telecommunication:	Redundant Power Supply
▸ Antenna Remoting	>10 Km transmission distance
▸ Long RF links via fiber	Additional features/frequencies upon request

RFOptic's analog RFoF compact modules convert RF signals to optical signals and back. The Tx unit using an optical transmitter converts RF to Optical signal, and the Rx unit converts Optical to RF signal. The two units are connected by the customer's fiber.

With our wide-band units, cable operators can centrally locate their broadcasting equipment and connect RF through fiber to the remote location, thus reducing significantly the CAPEX and OPEX of their networks.

The 2.4 GHz RFoF system can accommodate up to 12 Tx or Rx links (or a combination), 2 power supply cards and 1 control card that can be interfaced to a management system through RS232 or SNMP protocols. The product is lightweight and can be installed in a 19" rack. There are light indications on the front panels in the management system.

The system is ideal for Satellite applications where several links run in parallel. In a case failure of one of the main channels, the system switches automatically to a redundant channel. The system can be provided with gain control at the receiver side in to tune the gain to certain required level.

Table below describes the typical specifications of the RFoF-2.4GHz Multilink product.		
Parameter	**Unit**	**Specifications**
RF Tx-Rx link		
Frequency Range	MHz	100 – 2400
RF Gain	dB	> 0
Gain Flatness (Max)	dB	≤ ± 2
1dB Input compression point	dBm	≥ -5
VSWR	-	2:1
RF input signal range	dBm	(-65) - (-5)
Maximum input level	dBm	10
Noise Figure at 1.2 GHz	dB	<30
Spurious signals [1]	dBc	<-70
Input and output impedance	Ohm	50
Optical and Electrical (Tx,Rx)		
Laser diode operating wavelength	µm	1.31
Receiver Photodiode operating wavelength	µm	1.2 - 1.65
Optical Power	mW	2 ± 0.5
Optical Connectors	-	FC/APC
RF input and output connectors	-	SMA
Electrical connectors [3]		DB9
Power (4)	VDC	5 ± 0.25
Current consumption at 5VDC (Tx unit)	A	≤ 0.1
Current consumption at 5VDC (Rx unit)	A	≤ 0.05
LED status indicators (Tx./Rx.)	-	Green
Mechanical and Environmental (Tx,Rx)		
Number of Tx/Rx units in 19" Chassis	-	12 (Max)
Chassis Dimensions	-	19" 3U
Operating temperature range (Trans./ Rec.)	°C	-10 to 65
Storage Temperature range (Trans./Rec.)	°C	-40 to +85

(1) RFoF with lower N.F ≤ 20dB, P1dB noise figure values can be changed by adding pre/post amplifiers.
(2) Excluding in-band harmonics.
(3) DB-9 pin layout is described below.
(4) DB-9 female convertor from 5VDC to 110/220 VAC is optional.