



Sat-Light Gold Series

OEM RF Optical Link



Features & Benefits

- Complete fiber optic RF analog link for OEM integration
- Compact size: 105x50x15mm
- 10–2200MHz wide input frequency range
- High and low gain versions available
- Adjustable laser drive and RF power output
- Switchable AGC/MGC
- Alarm output signals
- Compatible with all Global Foxcom products

Product Description

Global Foxcom's OEM Link offers a high performance, cost effective alternative for OEM users requiring optical transmission of RF signals covering the range of 10 to 2200MHz. Two versions are available depending on the application— high gain transmitters are available for low power input signals and low gain transmitters for high RF input power. Two receiver options with different power output are also available.

The dimensions of the OEM board are 105x50x15mm. The OEM board operates on a wide voltage range and is compatible with all Sat-Light products. Switchable AGC/MGC is standard. Optical/RF alarm output signals are available in both 50Ohm and 75Ohm versions.

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Specifications OEM RF Optical Link: W-Band [10-2200MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range	MHz	10-2200MHz		
Link Gain	dB	Adjustable	-10	+10
Amplitude Response @ Unity Gain (TBD) 950-2150MHz 10-950 Any 36 MHz	dB	±2 ±1.5 ±0.25		±2.2 ±1.5 ±0.3
Gain Stability	dB/24hr	±0.25		±0.3
SFDR ¹	dB/Hz ² / ³	103	100	
CNR [36 MHz @ 5GHz] ¹	dB	60	55	
Noise Figure (NF) ¹	dB	22		21
Output IP3 (OIP3) ²	dBm	+5	0	
Third Order Inter-Modulation [IMD] ³	dBc	Adjustable	55	30
Group Delay Variation- linear 950–2150MHz	Ns	0.4		5
Input Signal Range–Total Power	dBm		-45	-20
Output Signal Range–Total Power	dBm		-45	-20
Maximum Input without Damage	dBm		+15	
Input/Output Impedance	ohm		50	75
TX/RX Input/Output return loss 50 Ohm 75 Ohm	dB	-14 -12		-14 -12
RF Input/Output Connector Type		MCX		
Optical Specifications	Units	Typical	Minimum	Maximum
Optical Power Output	dBm	3	4	8
Optical Budget / Distance	dB/Km	4/8		
Optical Connector Types		FC-APC		
Optical Wavelength	nm	1310		
Electrical Specifications	Units	Typical	Minimum	Maximum
Supply Voltage	Vdc	13	12.7	18
Supply Current [TX] ⁴	Amps	0.4		
Supply Current (RX)	Amps	0.3		
Physical Specifications	Units	Typical	Minimum	Maximum
Operating Temperature Range			-10	+50
Dimensions [D×W×H]		105x50x15		
MTBF	Hours	TX: 309, 481 RX: 359, 057		

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1. -25dBm RF input, unity gain, IMD=-40 dBc @ 1 meter Fiber
2. -25dBm RF Output, IMD=-40dBc
3. User adjustable
4. Under 10°C add 120 mA [laser heating]

Ordering Information

Model Number	Description
FOC1-420T-1310-FC-50	W-Band analogue optical Transmitter, 30dB internal Gain, optimized for downlink, -20 to -45dBm input signals.
FOC1-430T-1310-FC-50	W-Band analogue optical Transmitter, 20dB internal Gain, optimized for Uplink -5 to -25dBm input signals.
FOC1-420R-FC-50	W-Band analogue optical receiver, 20dB internal Gain, -20 to -50dBm RF output.
FOC1-430R-FC-50	W-Band analogue optical receiver, 30dB internal Gain, -5 to -30dBm RF output.

Note: Use -75 for 75Ohm MCX version

All specifications are subject to change without prior notice.