

## GL7430 Wideband Optical Link



### Features & Benefits

- Optimized for Professional Satellite and Wireless Applications
- Wide Dynamic Range
- 10Km Transmission Distance
- Selectable AGC/MGC
- Front Panel Test Port
- Powerful Monitoring Features
- Compatible with all 1<sup>st</sup> Generation Sat-Light Products

### Product Description

Foxcom's Sat-Light/Gold Wideband Optical Link offers a high performance, cost effective alternative to conventional coaxial-cabled systems. Sat-Light/Gold L-Band IFL covers the range of 10 to 2200MHz. The Gold Series Wideband link is designed for a wide range of satellite and wireless applications. Foxcom's high dynamic range DFB laser delivers exceptional signal quality for the most demanding of requirements.

The new Sat-Light Gold series is compatible with first generation Sat-Light 7000 Series platform. The Gold Series support L-Band, 70/140MHz IF, Wide Band (10-2200 MHz), 10MHz Reference, Redundancy, M & C, SNMP, Ethernet, and Serial Data Communication.

The link consists of a high dynamic range optical transmitter, which converts incoming RF signals into optics, and an optical receiver that re-converts the optical signal back into RF. All satellite modulation schemes are accommodated –digital or analog. Inherently low phase is achieved by direct modulation of the laser diode.

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Complete RF-2-Fiber Solutions

GL7430 RF Optical Link Wideband [10-200MHz], 4dB Optical Budget				
RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range	MHz	10-2200MHz		
Link Gain	dB	Adjustable	-10	+10
Amplitude Response @ Unity Gain 10-2200MHz any 36 MHz	dB	±2.25 ±0.3		±2.5 ±0.4
Gain Stability	dB/24hr	±0.25		±0.3
SFDR <sup>1</sup>	dB/Hz <sup>2/3</sup>	102	100	
CNR [any 36 MHz] <sup>1</sup>	dB	55	52	
Noise Figure (NF) <sup>1</sup>	dB	18		21
Output IP3 (OIP3) <sup>2</sup>	dBm	+20	+15	
Third Order InterModulation [IMD] <sup>3</sup>	dBc	Adjustable	55	40
Group Delay Variation- linear 10 -60 MHz 60 - 2200MHz	ns	14 2		
Input Signal Range - Total Power	dBm		-25	0
Output Signal Range - Total Power	dBm		-25	+5
Maximum Input without Damage	dBm		+15	
Input/Output Impedance	75 or 50			
TX/RX Input/Output return loss 50 Ohm 75 Ohm	dB	-15 -13		-15 -13
RF Connector Type Input/Output Test Port		F, SMA BNC		
Test Port [front panel sample port]	dB	-20	-22	-18

Optical Specifications		Typical	Minimum	Maximum
Optical Power Output	dBm	3	2	4
Optical Budget / Distance 4 dB optical budget	dB/Km	1310 nm   1550 nm 8  15		
Optical Connector Types		FC/APC		
Optical Wavelength	nm	1310/1550/CWDM		

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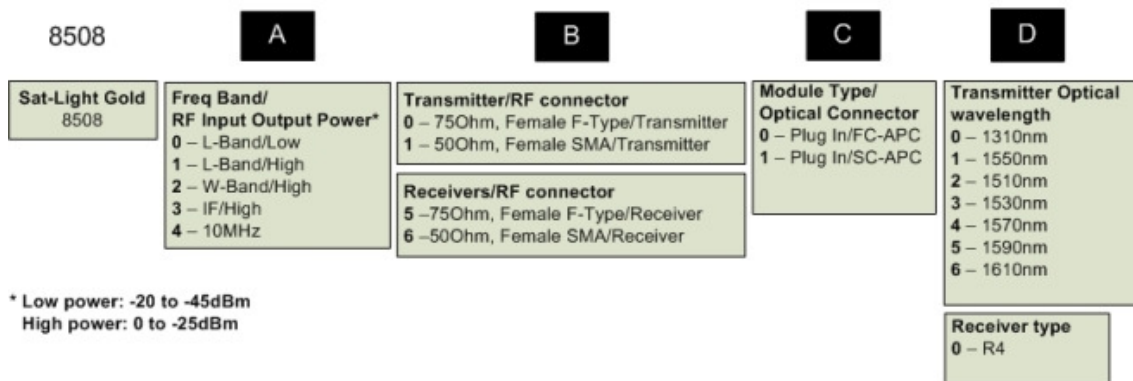
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## Complete RF-2-Fiber Solutions

Electrical Specification				
Supply Voltage	Vdc	13	12.7	18
Supply Current [TX] <sup>5</sup>	Amp	0.4		
Supply Current (RX)	Amp	0.3		
Physical Specifications				
Operating Temperature Range			-10	+55
Dimensions [D×W×H]				
MTBF	Hours	TX: 309, 481 RX: 359, 057		

1. -5dBm RF input, unity gain, IMD=-40 dBc @ 1 meter Fiber
2. -25dBm RF input, 20dB Gain, IMD=-40 dBc
3. 0dBm RF Output, IMD=-40dBc
4. User adjustable
5. Under 10°C add 120 mA [laser heating]

### Ordering Information



Example: Plug in module, L-band, low RF input, 1310nm laser, F-Type RF connector and FC/APC optical connector

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