



Sat-Light Gold Series

GL7230 L-Band Optical Uplink



Features & Benefits

- Optimized for Professional Satellite and Wireless Applications
- High Input Power (-10 to -30dBm)
- 10Km Transmission Distance
- Selectable AGC/MGC
- Front Panel Test Port
- Powerful Monitoring Features
- Compatible with all 1st Generation
 Sat-Light Products

Product Description

Foxcom's Sat-Light/Gold L-Band Interfacility Link offers a high performance, cost effective alternative to conventional coaxial-cabled systems. Sat-Light/Gold L-Band IFL covers the range of 950 to 2200MHz. The Gold Series L-Band link is designed for a wide range of satellite UL (Uplinking) facilities whereby high input power levels are required. Foxcom's high dynamic range DFB laser delivers exceptional signal quality for the most demanding applications.

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, Wideband (10-2200 MHz), 10MHz Reference, Redundancy, M & C, SNMP, Ethernet, and Serial Data Communication.

The link consists of a high input power optical transmitter, which receives the RF signal from an L-band modem, and an optical receiver that connects to the antenna BUC. 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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All specifications are subject to change without notice. Rev 02/July 2013.

Sat-Light Gold Series

Specifications

GL7230 L-Band Optical Uplink [950-2200MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range	MHz	950-2200MHz		
Link Gain	dB	Adjustable	-10	+10
Amplitude Response @ Unity Gain 950-2200MHz any 36 MHz	dB	±2 ±0.25		±2.2 ±0.3
Gain Stability	dB/24hr	±0.25		±0.3
SFDR1	dB/Hz²/³	103	100	
CNR [any 36 MHz] ¹	dB	54	52	
Noise Figure (NF) ²	dB	18		21
Output IP3 (OIP3) ³	dBm		+15	
Third Order InterModulation [IMD] ⁴	dBc	Adjustable	55	40
Group Delay Variation- linear 950 - 2200MHz	ns	4		5
Input Signal Range - Total Power	dBm		-30	-5
Output Signal Range - Total Power	dBm		-25	0
Maximum Input without Damage	dBm		+15	
Input/Output Impedance	75 or 50			
TX/RX Input/Output return loss 50 Ohm 75 Ohm	dB	-14 -12		-14 -12
RF Connector Type Input/Output		F, SMA		
Test Port		BNC		
Test Port [front panel sample port]	dB	-20	-22	-18
Optical Specifications	Unit			
	Unit	Typical	Minimum	Maximum
Optical Power Output	dBm	Typical 3	Minimum 1	Maximum 4
Optical Power Output Optical Budget / Distance 4 dB optical budget				
Optical Budget / Distance	dBm	3 1310 nm 1550 nm		
Optical Budget / Distance 4 dB optical budget	dBm	3 1310 nm 1550 nm 8 15		
Optical Budget / Distance 4 dB optical budget Optical Connector Types	dBm dB/Km	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC		
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength	dBm dB/Km	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC		
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification	dBm dB/Km nm	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM	1	4
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification Supply Voltage	dBm dB/Km nm	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM	1	4
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification Supply Voltage Supply Current [TX] ⁵	dBm dB/Km nm Vdc Amps	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM 13 0.4	1	4
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification Supply Voltage Supply Current [TX] ⁵ Supply Current (RX)	dBm dB/Km nm Vdc Amps	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM 13 0.4	1	4
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification Supply Voltage Supply Current [TX] ⁵ Supply Current (RX) Physical Specifications	dBm dB/Km nm Vdc Amps	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM 13 0.4	1 12.7	18
Optical Budget / Distance 4 dB optical budget Optical Connector Types Optical Wavelength Electrical Specification Supply Voltage Supply Current [TX] ⁵ Supply Current (RX) Physical Specifications Operating Temperature Range	dBm dB/Km nm Vdc Amps	3 1310 nm 1550 nm 8 15 FC/APC or SC/APC 1310/1550/CWDM 13 0.4	1 12.7	18

1. OdBm RF input, unity gain, IMD=-40 dBc @ 1 met	ter fiber 4. User adjustable
225dBm RF Output, IMD=-40dBc	5. Under 10°C add 120 mA [laser heating]
3. OdBm RF Output, IMD=-40dBc	

Ordering Information	
GL7230-T - Gold L-Band Uplink Transmitte	r
GL7230-R - Gold L-Band Uplink Receiver	