



Sat-Light Gold Series

GL952SD S-Band Optical Link



Features & Benefits

- Optimized for Professional Satellite and Wireless Applications
- Wide Dynamic Range
- 8 to 15Km transmission distance
- Selectable AGC/MGC Front Panel Test Port
- Powerful Monitoring Features
- Compatible with all 1st generation Sat-Light products

Product Description

Global Foxcom's Sat-Light/Gold S-Band Optical Link offers a high performance, cost effective alternative to conventional coaxial-cabled systems. Sat-Light/Gold S-Band IFL covers the range of 2000 to 4000MHz. The Gold Series S-Band link is designed for a wide range of satellite and wireless applications. Global 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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Specifications

GL952SD-RF Link S-Band [2000–4000MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency range	MHz	2000–4000		
Link gain	dB	Adjustable	-10	+10
Amplitude response 2000–4000MHz and 36 MHz	dB	±2.25 ±0.3		±2dB ±0.4
Gain Stability	dB/24hr	±0.25		±0.3
SFDR ¹	dB/HZ/ ² . ³	102	100	
CNR [36 MHz @ 2.5GHz] ¹	dB	55	52	
Noise figure (NF) ¹	dB	30		32
OIP3 ²	dB	+20	+15	
Third Order Inter-Modulation [IMD] ³ Group Delay Variation–linear 2000 to 4000MHz	dBc ns	Adjustable 4	55	40
Input Signal Range –Total Power	dBm		-25	-5
RF Output Signal Range–Total Power	dBm		-25	-5
Maximum Input without damage	dBm		+15	
Input/Output Impedance	ohm	50		
TX/RX Input/Output return loss–50 Ohm	dB	-12		-12
RF Connector Type: Input/Output Test Port		SMA SMA		
Test Port [front panel sample port]	dB	-20	-22	-18
Optical Specifications	Unit	Typical	Minimum	Maximum
Optical Power Output	dBm	3	2	4
Optical Budget/Distance 4 dB Optical Budget	dB/Km	1310nm 1550 nm 8 to 15 Km		
Optical connector types		FC-APC or LC-APC		
Optical wavelength	nm	1310 1550		
Electrical Specifications				
Supply Voltage	VDC	13	12.7	18
Supply Current [TX]	Amps	0.4		
Supply Current (RX)	Amps	0.4		
Physical Specifications				
Operating Temperature Range			-10	+55
Dimensions [D×W×H]		5.75" X 1.5" X 5.2"		
MTBF	Hours	TX: 309, 481 RX: 359, 057		

1. -10dBm 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

Ordering Information

Model Number	Specifications
GL952SD-T-SMA-FC	S-Band Downlink fiber optic Transmitter (2 to 4GHz). 4dB (8km) optical budget. 50-Ohm SMA RF Connector. Compatible with the 7180M Chassis. [Special order: Contact Global Foxcom for exact delivery time.]
GL952SD-R-SMA-FC	S-Band Downlink fiber optic Receiver (2 to 4GHz). 4dB (8km) optical budget. 50-Ohm SMA RF Connector. Compatible with the 7180M Chassis. [Special order: Contact Global Foxcom for exact delivery time.]