

GL952SD S-Band 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 1st Generation Sat-Light Products



Product Description

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. 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.

Specifications

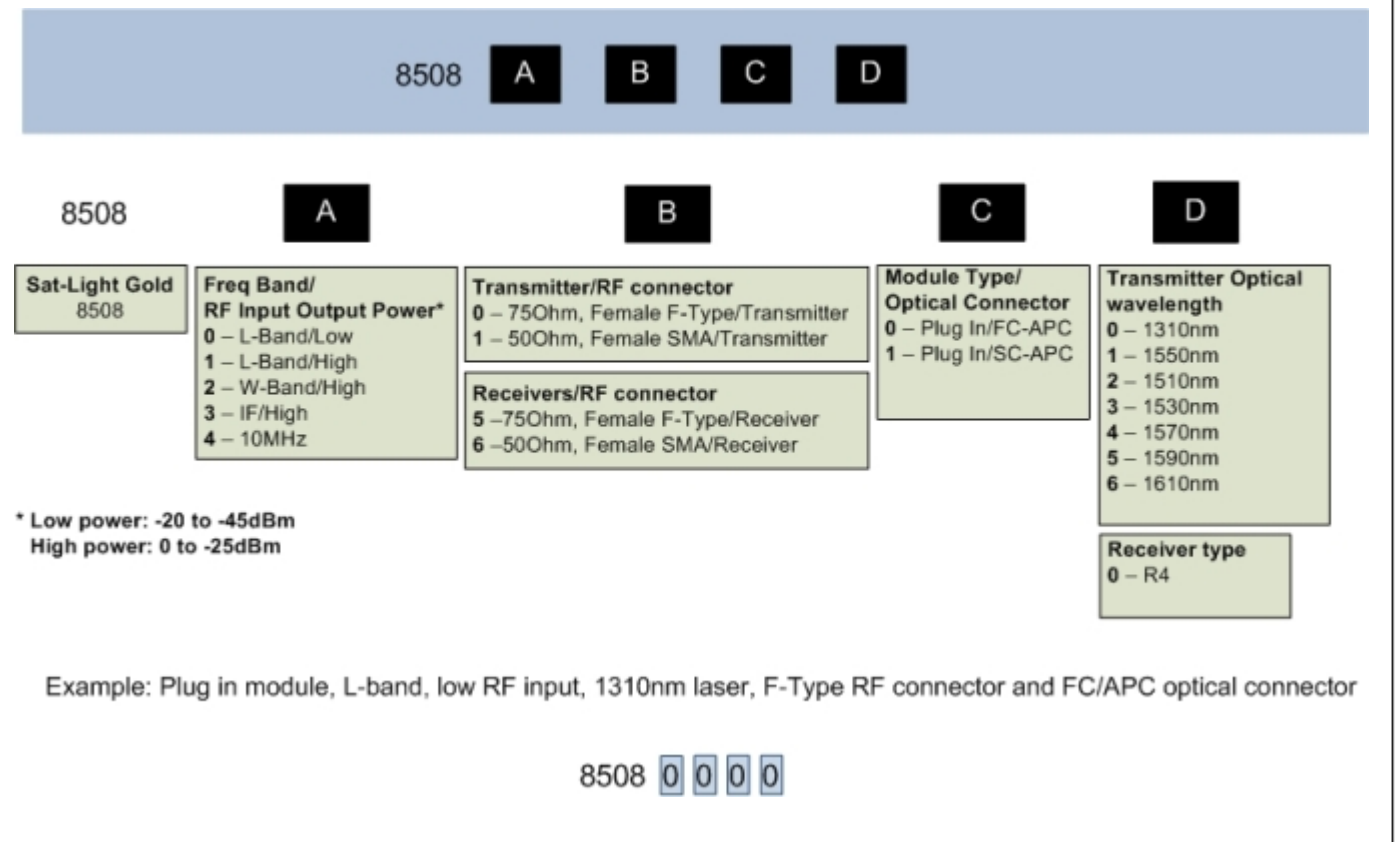
GL952SD RF Link S-Band [2000-4000MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range	MHz	2000-4000MHz		
Link Gain	dB	Adjustable	-10	+10
Amplitude Response @ Unity Gain 2000-4000MHz any 36 MHz	dB	±2.25 ±0.3		±2.5 ±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
Output IP ₃ (OIP ₃) ₂	dB	+20	+15	
Third Order InterModulation [IMD] ₃	dBc	Adjustable	55	40
Group Delay Variation- linear 2000 to 4000MHz	ns	4		
Input Signal Range - Total Power ₇	dBm		-25	-5
RF Output Signal Range - Total Power	dBm		-25	-5
Maximum Input without Damage	dBm		+15	
Input/Output Impedance		50		
TX/RX Input/Output return loss 50 Ohm	dB	-14		-14
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	1310 nm 1550 nm 8 15		
Optical Connector Types		FC/APC		
Optical Wavelength	nm	1310/1550/CWDM		
Electrical Specification				
Supply Voltage	Vdc	13	12.7	18
Supply Current [TX] ₅	Amps	0.4		
Supply Current (RX)	Ampls	0.3		
Physical Specifications				
Operating Temperature Range			-10	+55
Dimensions [DxWxH]				
MTBF		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]

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Ordering Information



Corporate Office Israel

16 Hataasia St.
Har Tuv A,
Beit Shemesh, Israel 99052,
Tel: +(972) 2 5899888
Fax: +(972) 2 5899898

US Office

222 Prince George Street,
Suite 110,
Annapolis, Md 21401
Tel: +(1) 609 514 1800
Fax: +(1) 609 514 1881