



Sat-Light Gold Series

GL7222 GPS Optical Link



Features & Benefits

- Optimized for GPS applications
- Selectable GPS antenna powering voltage
- Supports both L2 & L1 GPS bands
- 10Km 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 L-Band Interfacility Link offers a high performance, cost effective alternative to conventional coaxial-cabled systems. The Gold GPS Link covers the frequency range of 1100 to 1600MHz and supporting both L1 and L2 GPS bands. The Gold Series GPS link is compatible with wide range of active GPS antenna and is equipped with a 3.3/5V voltage selectable GPS antenna powering.

The new GPS link 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 GPS optical transmitter, which receives the RF signal from an active GPS antenna, and an optical receiver that connects to the indoor GPS receiver.

Sat-Light Gold Series

Specifications

GL7222 GPS Optical Link; L-Band [1100-1600MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency range	MHz	1100-1600MHz		
Link gain	dB	Adjustable	-10	+1
Amplitude Response @ Unity Gain 1100-1600MHz any 36 MHz	dB	±1 ±0.25		±1.5 ±0.3
Gain Stability	dB/24hr	±0.25		±0.3
SFDR ¹	dB/HZ/2/3	103	100	
CNR [any 36 MHz] ¹	dB	60	55	
Noise Figure ¹	dB	6		7
Output IP3 (OIP3) ²	dBm	+5	0	
Third Order Inter-Modulation [IMD] ³	dBc	Adjustable	55	30
Group Delay Variation- linear 950 - 2150MHz	ns	4		5
Input Signal Range – Total Power ⁷	dBm			-50
Output Signal Range – Total Power	dBm			-50
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		BNC, SMA BNC		
Test Port [front panel sample port] ¹⁰	dB	-20	-22	-18
Optical Specifications	Units	Typical	Minimum	Maximum
Optical power output	dBm	3	1	4
Optical budget / distance 4 dB optical budget	dB/Km	1310 nm 1550 nm 8 15		
Optical connector types		FC/APC or SC/APC		
Optical wavelength	nm	1310/1550/CWDM		
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	+55
Dimensions [D×W×H]				
MTBF	Hours	TX: 309, 481 RX: 359, 057		

Ordering Information

Model Number	Description
GL75PT-1PPS-1550-BNC50-FC	DC-30MHz, 1PPS Optical Transmitter, 1550nm laser. FC-APC optical connector, BNC50 Input connector.
GL75PR-BNC50-FC	DC-30MHz, 1PPS Optical Receiver, 4dB optical budget. FC-APC optical connector, BNC50 Output connector.