FOXCOM
Complete RF-2-Fiber Solutions

Sat-Light Gold Series

GL7330 IF-Link 10 to 200MHz

Features & Benefits

- Optimized for Professional Satellite 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 70/140MHz IF Link offers a high performance, cost effective alternative to conventional coaxial-cabled systems. Sat-Light/Gold L-Band IFL operates in the range of 10 to 200MHz. The Gold Series L-Band link is designed for a wide range of satellite up and downlinking facilities whereby high CNR levels are required. Foxcom's high dynamic range DFB laser delivers exceptional signal quality for the most demanding of 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, Wide Band (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 IF 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.

Specifications

GL7330 RF Optical Link, IF [10 to 200MHz], 4dB Optical Budget

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range	MHz	10-200MHz		
Link Gain	dB	Adjustable	-10	+10
Amplitude Response @ Unity Gain 10-200MHz any 36 MHz	dB	 ±0.4dB ±0.3dB		±0.5dB
Gain Stability	dB/24hr	±0.25		±0.3
SFDR1	dB/Hz2/3		100	
CNR [any 36 MHz]1	dB	60	57	
Noise Figure (NF)2	dB	18		21
Output IP3 (OIP3) 3	dB	+20	+15	
Third Order InterModulation [IMD][4]	dBc	Adjustable	-55	-40
Group Delay Variation- linear 10 to 25 MHz 25 – 200MHz	ns	 5 1		
Input Signal Range - Total Power	dBm		-30	0
RF 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	 -15 -12		 -15 -12
RF Connector Type Input/Output Test Port		 F, SMA BNC		
Test Port [front panel sample port]	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 Specification	**Units**	**Typical**	**Minimum**	**Maximum**
Supply Voltage	Vdc	13	12.7	18
Supply Current [TX]5	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		

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

Ordering Information
GL7330 IF-T – Gold 10 to 200MHz Tx
GL7330 IF-R – Gold 10 to 200MHz Rx

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