



## Sat-Light Platinum Series

### PL7130T1550 / PL7130R10 10MHz Reference Signal RF Link High Power Input, 10dB Optical Budget



#### Features & Benefits

- Designed to transfer 10MHz reference sine signals
- Equipped with 2<sup>nd</sup> harmonic filter to improve performance
- Powerful management capabilities via a front panel LCD and rack-mounted SNMP
- Variety of RF and optical connectors
- More than 40Km distance

#### Product Description

Global Foxcom's Platinum 10 MHz card is designed to meet the increasing demand for modularity and high-performance in a small form factor for superior long-distance transmission. With high RF input power and wide dynamic range, the link is designed to provide full specification service up to a full 10 dB optical budget with the PL7130R10 receiver.

Utilizing Global Foxcom's DigiRF technology, the user has full control of all important functions for setup, operation, and analysis via the front panel LCD or via the associated sub-rack SNMP capability.

Each low profile individual transmitter or receiver can be "hot swapped" in the chassis maintaining a best subsystem uptime capability. Each module contains an individual processor to maximize specification performance at all times under demanding user applications.

The **PL7130T1550** transmitter and **PL7130R10** receiver are designed for sub-rack chassis mounting. The associated Platinum chassis, model PL7010, has 12 active slots, one main control processor (MCP) slot and two redundant power supplies. No fans are required.

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## PL7130T1550 / PL7130R10, 10MHz Reference RF Link High Power Input, 10 dB Optical Budget [40Km]

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range - Bandwidth	MHz	10		
Amplitude Response @ Unity Gain 5 ± 1 MHz	dB	±0.2		±0.25dB
Gain Stability	dB/24hr	±0.2		±0.25dB
Gain Slope	dB			+1.0
Gain variation over temperature	dB		-2	2
DR (Dynamic Range – single channel) <sup>1</sup>	dB			30
Noise Figure (NF) <sup>2</sup>	dB	24	23	26
Input/Output Impedance	Ohm	50 or 75		
1dB Compression Point	dBm	2		3
Phase Noise <sup>3</sup>	dBm	None		
RF Input Signal Range – Total Power	dBm		-10	+5
Maximum Input without Damage	dBm			+20
RF Output Signal Range – Total Power <sup>4</sup>	dBm		-10	+12
TX/RX Input/Output Return Loss 50 Ohm 75 Ohm	dB			
		-18		-18
		-15		-15
Test Port [front panel sample port]	dB	-20	-22	-18
RF Connector Input/Output Test Port		F, SMA, BNC, N F, BNC		
Optical Specifications	Units	Typical	Minimum	Maximum
Optical Wavelength	nm	1550		
Optical Power Output	mW / dBm	2/3		
Optical Budget / Distance	dBm/Km	1550 nm / 40		
RX Optical Input Power	dBm	-7	-8	4
Optical Connector Types		FC-APC or SC-APC (E2000 option)		
Optical Return Loss	dB		-60	-55
Electrical Specifications	Units	Typical	Minimum	Maximum
Supply Voltage	V DC	12		
Supply Current [TX] <sup>5</sup>	Amps	0.5		
Supply Current [RX]	Amps	0.45		
EMI Rating		EMI Rating: FCC Class B CE Mark		

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Physical Specifications	Units	Typical	Minimum	Maximum
Operating Temperature Range	°C		-10	+55
Storage Temperature Range	°C		-45	+85
Relative Humidity	95% non-condensing			
Altitude	Ft/Km	10,000 [3.08] operating <sup>6</sup> 14,000 [12.2] non-operating		
Dimensions [DxWxH]	In/cm	12x0.8x4 / 30.5x2x10.2		
Weight	Lbs./Kg	0.5 / 0.23		
MTBF	Hours	TX: 309, 481 RX: 359, 057		
MTRR	Hours	0.083		
Shock & Vibration	Designed for normal transportation environment per section 514.4 MIL-STD-810E. Designed to withstand 20G at 11 ms [½ sine pulse] in non-operating configuration.			

1. User adjustable
2. -5 dBm RF input, link gain = 10 dB, single tone@ 0 dBm optical input
3. Direct modulation utilized
4. Alarm trip point: RED +12dBm, AMBER -12dBm
5. Under 10° add 120 mA for TX [laser heating]
6. With standard adiabatic derating at 2°C/1000ft. [0.3 Km.]

All specifications are subject to change without notice

## Ordering Information

Example: PL7230T-50SMA-SC

L-band, high RF input transmitter, 1310 nm laser, 50-Ohm SMA RF connector and SC/APC optical connector

PL7 2 3 0 T Null - 50SMA - SC

A B C D E F G

### A Platinum Product

- 00 - MCP
- 01 - Chassis & PS
- 0 - 5 MHz Tx/Rx
- 1 - 10 MHz Tx/Rx
- 2 - L-Band Tx/Rx
- 3 - IF Tx/Rx
- 4 - Wideband Tx/Rx
- 5 - Data XVCR
- 6 - Accessories
- 7 - Non-chassis mount products

### B Tx RF Input/ Rx RF output

- 2 - Low power input
- 3 - High power input

### C Product Series

- Null - None [default]
- 1 - 1<sup>st</sup> series
- 2 - 2<sup>nd</sup> series
- Etc.

### D Module Type

- T = Tx
- R = Rx
- S = Serial data
- E = Ethernet
- G = GigE

### E Laser for TX & Optical budget for RX

- Tx: Null = 1310nm laser
- 1550 = 1550nm laser
- XXXX = ITU option
- Rx: 4= 4dB      16=16dB
- 10=10dB      25= 25dB

### F RF Connector

- 75F = 75-Ohm F
- 75BNC = 75-Ohm BNC
- 50BNC = 50-Ohm BNC
- 50SMA = 50-Ohm SMA
- 50N = 50-Ohm N

### G Optical Connector

- Null = FC/APC [default]
- SC = SC/APC
- E2 = E2000