

PL7130T1550/ PL7130R20 10MHz Reference signal RF Link High Power Input, 20dB Optical Budget

Features & Benefits:

- ❖ Designed to transfer 10MHz reference sine signals
- ❖ Equipped with 2nd harmonic filter to improve performances
- ❖ Powerful management capabilities via a front panel LCD and rack mounted SNMP
- ❖ Variety of RF and optical connectors
- ❖ More than 70Km distance

Product Description

Foxcom's Platinum 10MHz 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 20dB optical budget with the **R20** receiver.

Utilizing 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 subrack 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 **PL7130R20** receiver are designed for subrack 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.

Specifications

PL7130T1550 / PL7130R20 , 10MHz Reference RF Link High Power Input, 20 dB Optical Budget [70Km]

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range - Bandwidth	MHz	10		
Amplitude Response @ Unity Gain 5 ± 1 MHz	dB	±0.2		±0.25
Gain Stability	dB/24hr	± 0.2		± 0.25
Gain Slope	dB			+1.0
Gain Variation over temperature	dB		-2	2
DR (Dynamic Range - single channel) ¹	dB			30
Noise Figure (NF) ²	dB	58		
Input/Output Impedance	Ohm	50 or 75		
1 dB Compression Point	dBm	2		3
Phase Noise ³	dBm	None		
Input Signal Range - Total Power	dBm		-25	0
Maximum Input without Damage	dBm			+15
Output Signal Range [total power] ⁴	dBm		-25	+5
TX/RX Input/Output Return Loss 50 Ohm 75 Ohm	dB	-18 -15		-18 -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	-16	-17	-7
Optical Connector	Type	FC/APC or SC/APC (E2000 option)	-	
Optical Return Loss	dB		-60	-55
Electrical Specifications				
Supply Voltage	Vdc	12		
Supply Current [TX] ⁵	Amps	0.5		
Supply Current (RX)	Amps	0.45		

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EMI Rating		EMI Rating: FCC Class B CE Mark	
Physical Specifications			
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 14,000 [12.2] non-operating	
Dimensions [DxWxH]	ins/cm	12x0.8x4 / 30.5x2x10.2	
Weight	lbs./Kg	0.5 / 0.23	
MTBF	Hours	TX: 309,481 RX: 359,057	
MTTR	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.		

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1. User adjustable
 2. -5 dBm RF input, link gain = 10 dB, single tone @ -17dBm optical input
 3. Direct modulation utilized
 4. Alarm trip point: RED +7 dBm, AMBER -28 dBm
 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 - 1st series
- 2 - 2nd 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

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