



Sat-Light Platinum Series

PL2-7440 Dual Wideband RF Link



Features & Benefits

- ❖ 24 Wideband uplink and downlink signals per chassis
- ❖ Wideband: 10–3000 MHz
- ❖ More than 8Km. distance [15Km with the PL2-7440T 1550]
- ❖ Powerful management capabilities via a front panel LC and rack mounted SNMP
- ❖ User control and setting of required IMD level
- ❖ 1550nm and CWDM ITU Grid laser options are available for longer fiber runs and single fiber multiplexing solutions

Product Description

Global Foxcom's dual Wideband RF links provide a dynamic solution for multiple uplink and downlink applications where chassis capacity is crucial and rack space is limited. The dual link provides modularity and high-performance in a small form factor for superior distance transmission. The Platinum chassis can be equipped with 12 double-link cards offering 24 separate transportation paths.

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 subrack SNMP capability.

In addition **IMizer**, an automated adjustable link calibration embedded system enables the user to align the RF links IMD/CNR to specific linearity performances without a two-tone test. Select the desired IMD for the optical transmitter, either locally or remotely, **IMizer** automatically adjusts the laser drive to meet the IMD requirements. The **IMizer** requires the use of a correction factor table above 2.5 GHz.

Each low profile individual transmitter or receiver can be "hot swapped" in the subrack 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 **PL2-7440T** transmitter and **PL2-7440R4** 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 even under full subrack loading and full LNB powering.

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Specifications

PL2-7440T [PL2-7440T 1550] / PL2-7440R4 RF Link

Wide Power Range, 4dB Optical Budget [8Km - 1310nm & 15Km - 1550nm]

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range - Bandwidth	MHz	10 - 3000		3000
Amplitude Response @ Unity Gain				
10 - 3000 MHz	dB	±2		±2.25
any 36 MHz		±0.25		±0.3
Gain Stability	dB/24hr	± 0.2		± 0.25
Gain Slope ¹	dB	0	-1.5	+1.5
Gain Variation over temperature	dB	± 1.5	-2	2
SFDR ²	dB/Hz ^{2/3}	100		
SFDR ³	dB/Hz ^{2/3}	95		
DR (Dynamic Range - single channel) ⁴	dB			50
CNR [any 36 MHz] ²	dB	58	55	60
Noise Figure (NF) ²	dB	40	37	43
Noise Figure (NF) ³	dB	12	10	13
Output IP3 (OIP3) ⁵	dBm	20		
Group Delay Variation- linear	ns			
10 to 60 MHz		13		-15
60–3000 MHz		1.5		-11
Input/Output Impedance	Ohm	50 or 75		
1 dB Compression Point	dBm	2		3
Phase Noise ⁶	dBm	None		
Third Order InterModulation [IMD] ⁴	dBc		-55	-40
Input Signal Range - Total Power ⁷	dBm		-50	0
Maximum Input without Damage	dBm			+15
RF Output Signal Range - Total Power	dBm			
⁸			-40	0
⁹			-40	0
TX/RX Input/Output Return Loss	dB			
50 Ohm		-15		-15
75 Ohm ¹²		-13		-11
RF Connector Type				
Input/Output			F, SMA, N	
Optical Specifications				
Optical Wavelength	nm	1310/1550/CWDM		
Optical Power Output	mW / dBm	2 / 3	1.7/2.5	
Optical Budget / Distance	dBm/Km	1310 nm 1550 nm		
4 dB optical budget		8 15		
RX Optical Input Power	dBm	-1	-2	4
Optical Connector Types	Type	LC/APC	-	
Optical Return Loss	dB		-60	-55
Electrical Specifications				
Supply Voltage	Vdc	12		
Supply Current [TX] ¹⁰	Amps	0.5		
Supply Current (RX)	Amps	0.45		
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		

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Altitude	ft / Km	10,000 [3.08] operating ¹¹ 14,000 [12.2] non-operating
Dimensions [D×W×H]	ins/cm	12×0.8×4 / 30.5×2×10.2
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.

1. Within flatness spec
2. -0 dBm RF input, link gain = 0 dB, IMD=-40 dBc @ 3 dB opt. budget [0 dBm optical input & max. RF input]
3. -50 dBm RF input, link gain =20dB, IMD=-50 dBc @ 3 dB opt. budget [0 dBm optical input & min. RF input]
4. User adjustable
5. -0 dBm RF in @ IMD=-40 dBc
6. Direct modulation utilized
7. Alarm trip point: RED -2 dBm, AMBER -53 dBm
8. @ 0 dB optical loss
9. -@ 4 dB optical loss
10. Under 10° add 120 mA [laser heating]
11. With standard adiabatic derating at 2°C/1000ft. [0.3 Km.]
12. -13 dB @10 to 3000MHz, -11dB @ 2500 to 3000MHz