



Sat-Light Platinum Series

70/140 MHz IF Fiber Optic Link



Features & Benefits

- ❖ IF-Band: 10–200 MHz
- ❖ Distances: 4dB: up to 10Km; 10dB: more than 25Km; 16dB: more than 45Km
- ❖ Powerful management capabilities via a front panel LCD and rack mounted SNMP
- ❖ 1550nm and CWDM ITU Grid laser options for longer fiber runs and single fiber CWDM multiplexing solutions
- ❖ User monitoring and control of IMD levels

Product Description

Global Foxcom's Platinum 70/140 MHz IF products are designed to meet the increasing demand for modularity and high-performance in a small form factor for superior long-distance transmission. The link performs at full capability within 4dB, 10dB or 16dB optical budgets.

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.

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.

Each low profile individual transmitter or receiver can be "hot swapped" in the sub-rack 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 **Platinum** transmitters and receivers are designed for sub-rack chassis mounting. The associated Platinum chassis has 12 active slots, one main control processor (MCP) slot and two redundant power supplies. No fans are required even under full sub-rack loading and full LNB powering.

Sat-Light Platinum Series

PL7330 Specifications*

RF Specifications	4dB Value	10dB Value	16dB Value
Frequency Range - Bandwidth	10–200 MHz	10–200 MHz	10–200 MHz
Amplitude Response @			
Unity Gain	±0.35	±0.35	±0.35
10–200 MHz	±0.20dB	±0.20dB	±0.20dB
any 36 MHz			
Gain variation over temperature	±1.5dB	±2dB	±2dB
Gain stability dB/25hr	±0.2dB	±0.2dB	±0.2dB
SFDR	>105 dB/Hz ¹	>103 dB/Hz ⁷	>103 dB/Hz ¹²
SFDR	>105 dB/Hz ²	>99 dB/Hz ⁸	>99 dB/Hz ¹³
Noise Figure (NF)	13dB ¹	27dB ⁷	44dB ¹²
Noise Figure (NF)	13dB ²	13dB ⁸	20dB ¹³
Output IP3 (OIP3)	20dBm ³	20dBm ⁹	20dBm ¹⁴
CNR [any 1MHz]	>75dB ¹	>70dB ⁸	>50dB ¹³
Group Delay Variation	<1.5ns	<1.5ns	<1.5ns
Third Order Inter-Modulation [IMD]	-55 to -40dBc ²	-55 to -40dBc ¹⁰	-55 to -40dBc ¹⁵
RF Input Power Range – Total Power	0 to -30dBm ⁴	-30 to -5dBm	-30 to -5dBm
RF Output Signal Range – Total Power	-30 to 0dBm ⁵	-30 to -5dBm ¹¹	-30 to -5dBm ¹⁶
TX/RX Input / Output Return Loss			
50 Ohm	-15dB	-18dB	-18dB
75 Ohm	-13dB	-17dB	-17dB
RF connector options	N/SMA/F/BNC50/BNC75	N/SMA/F/BNC50/BNC75	N/SMA/F/BNC50/BNC75
Optical Specifications	Value	Value	Value
Optical Wavelength	1310nm	1310nm	1310nm
Optical Power Output	2mW / 3dBm	2mW / 3dBm	2mW / 3dBm
Optical Budget / Distance	4dB/10Km ⁶	25dB/40Km	45dB/75Km
Min RX Optical Input Power	-1dBm	-7dBm	-13dBm

Sat-Light Platinum Series

Optical Connector Types	FC-APC or SC-APC (E2000 option)	FC-APC or SC-APC (E2000 option)	FC-APC or SC-APC (E2000 option)
	1. -25dBm RF input, link gain=20dB, IMD=-40dBc@3dB optical budget		
	2. -10dBm RF input, link gain=20dB, IMD=-40dBc@16dB optical budget		
	2. User adjustable		
	3. -5dBm RF out @ IMD=50dBc		
	4. Alarm trip point: RED -2dBm, AMBER -30dBm		
	5. Within optical budget		
	6. Longer when 1550nm laser is installed		
	7. -5dBm RF input, link gain=0dB, IMD=-40dBc@0dBm optical input – max. RF input		
	8. -30 dBm RF input, link gain=25dB, IMD=-40dBc@0dBm optical input – max. RF input		
	9. -5dBm RF out @ IMD=-40dBc		
	10. Adjustable. Above -10dBm input min. -50 dBc		
	11. Alarm trip point: RED -2dBm, AMBER -33dBm		
	12. -5dBm RF input, link gain=0dB, IMD=-40dBc@-7dB optical input – max. RF input		
	13. -30dBm RF input, link gain=25dB, IMD=-40dBc@-7dB optical input – max. RF input		
	14. -5dBm RF in @ IMD=-40dBc		
	15. Adjustable. Above -10dBm input min. -50 dBc		
	16. Alarm trip point: RED -2dBm, AMBER -30dBm		

*The results shown in this table are typical results. Minimum / maximum results are ± 3 dB.
All specifications are subject to change without notice.

Advanced Technology

Chassis

Figure 1: Rear view of 12 Slot Chassis with one MCP slot and dual Power Supply slots



Transmitter and Receiver with LCD and LED Indicators

Figure 2: Transmitter with LCD and LED Indicators
(Only Transmitter is shown here; Receivers are available and provide corresponding information)

LED Name	Color	Description
Power	Green	Power On
	No Light	Power Off
Status/Alarms	Green	No Alarms
	Amber	Minor Alarms
	Red	Critical Alarm
RF Input	Green	Input within specification
	Amber	Input below specifications
	Red	No input or above specifications
Remote	Yellow	Main processor control in effect
	No Light	No Main Processor Control



SNMP Graphic User Interface (GUI) for Monitoring & Control

Figure 3: SNMP GUI



The SNMP GUI enables the user to perform detailed monitoring & control of the system, including detection, such as:

- General data about the system, including version control
- Card status
- Optical power input and output monitoring
- RF power input and output monitoring
- AGC/MGC selection
- IMD selection (TX only)
- Power supply monitoring, such as DC Voltage, AC/DC Failures, Temperature, Fan speed
- Alarm history and alarm severity
- System statistics

Typical IF-Uplink

Figure 4: Typical IF-Uplink System

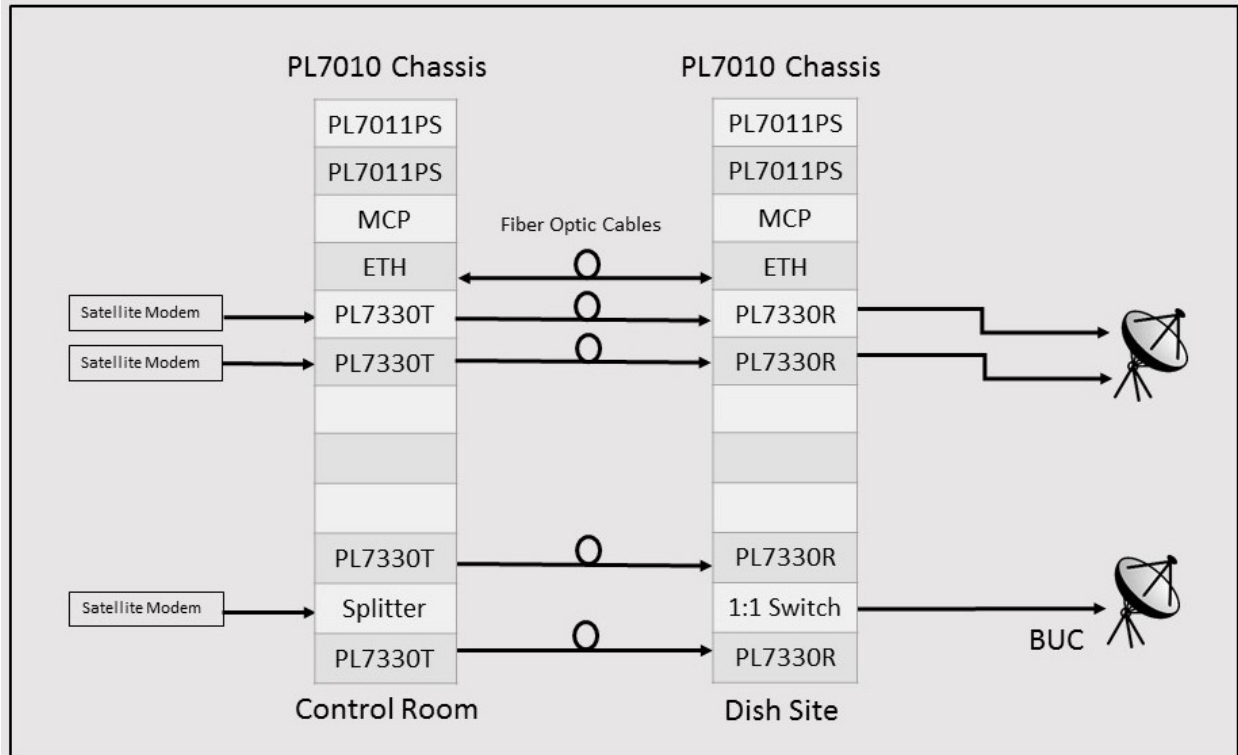


Figure 4 represents two typical IF-band uplinks within a teleport. The system is comprised of two sets of 19" 3RU indoor chassis (PL7010) with dual power supplies and an MCP Card.

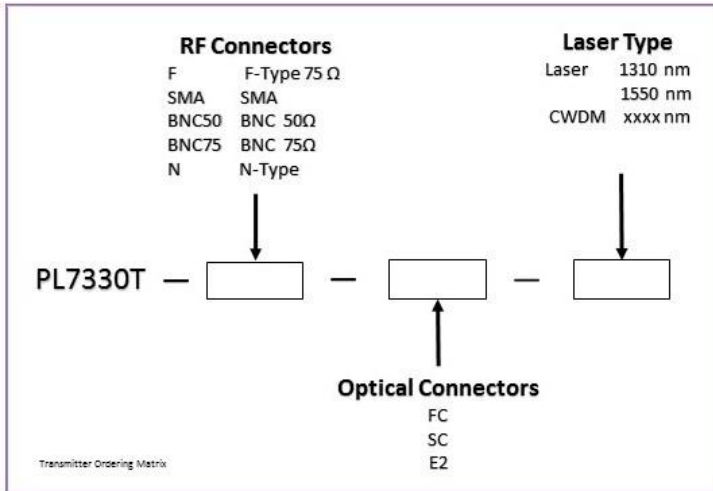
The uplink consists of a pair of PL7330T transmitters at the control room site receiving two IF signals from the modems and a pair of PL7330R receivers at the antenna site.

The other uplink represents one redundant link. A single IF-band signal is split at the output of the modem feeding into a pair of PL7330T optical transmitters at the indoor site. A pair of PL7330R receivers at the antenna site converts the optical signals back into RF and feed into a 1:1 RF switch.

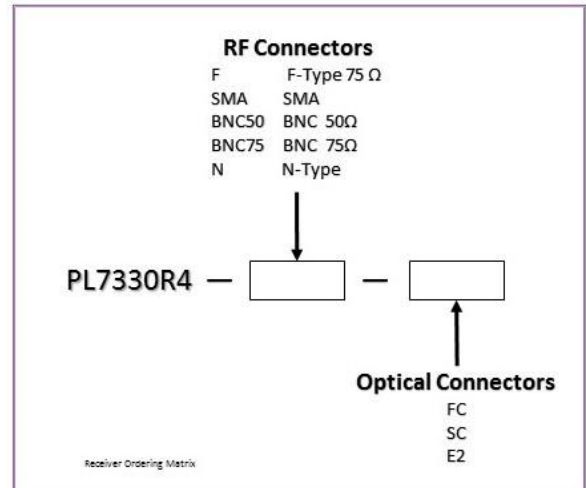
Ordering Matrix

[Request a Quote](#)

Transmitter Ordering Matrix



Receiver Ordering Matrix



Example Part Number: PL7330T – BNC 75 – FC – 1310

Recommended Accessories

Active Accessories

- ❖ 28dB Gain RF Amp
- ❖ 55dB Gain RF Amp
- ❖ Redundancy RF Switch
- ❖ Optical Ethernet Link

Passive Accessories

- ❖ Wideband RF Splitter
- ❖ IF RF Splitter
- ❖ 10MHz/L-Band Diplexer
- ❖ 2way Optical Splitter
- ❖ 1310/1550nm MUX/DeMUX