



## Sat-Light Platinum Series

# PL7611 1:1 RF Protection Switch



### Features & Benefits

- Automatic or manual switching
- Remote operation possible via SNMP manager
- DC to 3 GHz bandwidth
- Rapid switching to allow signal continuity
- Adjustable signal level detection for each channel separately
- Locking-switch circuit

### Product Description

Global Foxcom's **PL7611** card provides 1:1 redundant switching for the Sat-Light/Platinum interfacility link products, including the IF and L-band families.

**PL7611** can be controlled either locally or remotely. Global Foxcom's Platinum series MCP [PL700] can set the switching state (either remote or local) or the transmission path (channels A or B). However, in the case of a fault in the SNMP manager, the user can override the SNMP manager and return to control locally via the front-panel override switch.

The Sat-Light/Platinum MCP graphically displays the active path. Switching from the primary to redundant path can be performed by the **PL7611** manually or automatically. When the unit switches to the redundant channel, it will lock and continue to transmit over that channel regardless of the input to the primary channel. The high reliability, high-frequency relay redundancy switch can be configured to detect faults in the optical signal for each channel. In addition the user can set the threshold level at which the PL7611 switch detects loss of RF signals.

PL7611 provides two methods to detect which channel is operating:

- Via a 3-pin Molex connector on the rear panel
- Through the chassis via the 9-pin connector.

Redundant paths are configured using a Platinum RF splitter that transmits the RF signal to two transmitter cards. These cards are connected via a single-mode fiber optic cable to two receivers. Each receiver card connects to the **PL7611** via a supplied coaxial jumper cable. The **PL7611** then transmits the RF output signal to the end device.

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## Specifications

RF Specifications	Units	Typical	Minimum	Maximum
Frequency Range Bandwidth	MHz	DC-3000		
Amplitude Response				
DC-950 MHz	dB	±0.2		
950-2400 MHz		±0.4		
2400-3000 MHz		±0.7		
Input / Output Impedance	Ohm	50 or 75		
Insertion Loss				
DC - 950 MHz	dB	-0.6		
950 - 2400 MHz		1		
2400 - 3000 MHz		-1.5		
Maximum Input without damage	dBm	+20		
Channel A/B isolation				
DC - 950 MHz	dB		60	
950 - 2400 MHz			40	
2400 - 3000 MHz			30	
Switching speed				
On [active]	msec	13		
Off [inactive]		13		
Input/Output Return Loss - 50 Ohm				
DC - 950 MHz	dB	18		18
950 - 2400 MHz		15		15
2400 - 3000 MHz		12		12
Input/Output Return Loss - 75 Ohm				
DC - 950 MHz	dB	-18		-18
950 - 2400 MHz		-12		-12
2400 - 3000 MHz		-9		-9
RF Connector Input / Output	Type	F, SMA, BNC, N		
<b>Electrical Specifications</b>				
Supply Voltage	VDC	12		
Supply Current	Amps	0.5		
EMI Rating	EMI Rating: FCC Class B. CE Mark			
<b>Physical / Environmental Specifications</b>				
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>10</sup> 14,000 [12.2] non-operating		
Dimensions [D×W×H]	ins/cm	12×0.8×4 / 30.5×2×10.2		
Weight	lbs./Kg	1.0 / 0.46		
MTBF	Hours	456, 271		
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.			

All specifications are subject to change without notice.

## Ordering Information Matrix for PL7611 1:1 RF Protection Switch

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
A

3
B

0
C

T
D

Null
E

 - 

50SMA
F

 - 

SC
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