

# Photonic Cross-Connect



## Features and Benefits

- Photonic switching and routing of RF-over- fiber signals
- Dynamic reconfiguration of link paths
- Low insertion loss
- RF frequency independent
- Optical power monitoring
- 4 x 4 optical switch matrix
- 19" 1RU rack mount
- Ethernet and RS-232 interfaces

Pharad offers a four channel Photonic Cross-Connect that interfaces with our high performance RF Photonic Transceivers and supports the low loss routing, switching and distribution of multiple RF-over-fiber signals. It replaces conventional RF switches for the routing of RF signals to different locations and enables dynamic reconfiguration of the RF photonic links. The Photonic Cross-Connect operates independently of the frequencies of the RF signals being transported over fiber. Any of four input optical signals carrying RF signals can be switched to any of four output ports; as required in a particular application.

In addition to providing real-time creation and reconfiguration of the photonic signal paths, the Photonic Cross-Connect includes continuous optical power monitoring to ensure reliable operation of the entire system. It features millisecond switching time and provides extremely reliable optical performance. The Photonic Cross-Connect is easy to use, configure and manage via a web-based user interface, Ethernet, RS-232, or locally via a front panel user display interface.

### SPECIFICATIONS: OPTICAL

<b>Wavelength Range</b>	1530 – 1570 nm
<b>Fiber Type</b>	Single Mode
<b>Number of Ports</b>	4 x 4
<b>Insertion Loss (Typical)</b>	2 dB
<b>Insertion Loss (Maximum)</b>	3 dB
<b>Crosstalk (Maximum)</b>	- 70 dB
<b>Back Reflection (Maximum)</b>	-50 dB
<b>Switching Time (Maximum)</b>	30 ms
<b>PDL (Maximum)</b>	0.15 dB
<b>WDL (Maximum)</b>	0.30 dB
<b>Input Power (Maximum)</b>	+ 27 dBm
<b>Input/Output Connectors</b>	FC/APC

### SPECIFICATIONS: GENERAL

<b>Power</b>	90 – 264 VAC, 47 – 63 Hz
<b>Operating Temperature</b>	0 – 70 °C
<b>Storage Temperature</b>	-40 – 85 °C
<b>Control Interface (Remote)</b>	RS-232, Ethernet
<b>Control Interface (Local)</b>	LCD Display/Push Buttons
<b>Monitoring Functionality</b>	Optical Power
<b>Front Panel LEDs</b>	Power, Status
<b>Control Connectors</b>	RJ45 CAT-5, DB9
<b>Dimensions</b>	19" x 16.15" x 1.72"
<b>Remote Control Protocol</b>	HTML
<b>Weight</b>	9.6 lbs

PDL = Polarization Dependent Loss

WDL = Wavelength Dependent Loss (in a ± 20 nm range at 23 °C)