

## TROUBLESHOOT FROM THE NOC, NOT THE TRUCK!

Optical fiber is being deployed at an ever-increasing rate, by wireline and wireless communications service providers, multi-service operators, municipalities, government, enterprises, and test laboratories. Just as the Digital Access Cross-Connection System (DACS) revolutionized installation and maintenance of copper lines, the Fiber Optic Cross-Connection System (FOCS) will revolutionize the way fiber is installed and managed. A FOCS enables network operators to keep up with the runaway pace of fiber deployment and make fiber networks more profitable.

*FiberConnect is revolutionizing the way network operators install and manage optical fiber*

A FOCS is a dynamic, software-controlled equivalent of a manual fiber distribution frame or fiber patch panel. The Calient Networks DiamondWave® FiberConnect FOCS streamlines fiber management, enables remote troubleshooting, and enables rapid deployment of new fiber services. Calient's technology and manufacturing breakthroughs make dynamic fiber management with the FiberConnect inexpensive and reliable.



**DiamondWave FiberConnect**

## APPLICATIONS

FiberConnect revolutionizes fiber installation and maintenance by enabling:

- Rapid, remote FTTx construction certification
- Rapid, remote FTTx troubleshooting
- Auto-installation of FTTx subscribers
- Business Ethernet with SONET reliability
- Rapid, remote CO fiber troubleshooting and failure recovery
- Open networks: multiple service providers, one FTTx fiber plant

## FEATURES

**Scalable** to 640 fiber terminations per shelf

**Modular:** grow in increments of 8 connections with Soft Patch Cords

**High-density:** up to 1920 fiber terminations per rack

**Affordable:** same cost as present mode of operation, low first cost

**Reliable:** carrier-class redundancy, proven performance

**Simple** to install, integrate and use: GUI-driven, EMS-ready

**Flexible:** fits 19-inch, 23-inch and ETSI racks

**Low loss:** 2.0 dB typical insertion loss

## BENEFITS

**Immediately reduce network operating costs:** centralize operations, perform service activation and troubleshooting remotely, eliminate manual errors

**Competitive advantage:** introduce new fiber services faster, reduce service downtime, increase market share vs. non-FOCS competitors

**No increase in installed cost** vs. present mode of operation

## DESCRIPTION

Like a manual fiber patch panel or fiber distribution frame, any input fiber on the FiberConnect FOCS can be connected to any output fiber. Capacity is added using in-service-pluggable "Soft Patch Cords."

Unlike the manual fiber management systems it obsoletes, the FiberConnect enables remote management of all fiber cross-connections via a web-based graphical user interface, and reconfiguration of connections in less than 20 ms. A remotely-accessible database stores the current state of all connections. Optional integrated detectors allow continuous monitoring of optical power on all input and output fibers. Optional test ports enable any fiber to be remotely connected to shared test equipment, including OTDR. Other optional carrier-class features include full alarm and event management.

## STANDARD FEATURES

- Up to 640 fiber terminations per shelf
- Growable in increments of 8 connections
- Dual DC power feeds
- Graphical user interface
- TL-1 command line interface
- Front-panel LC connectors
- Redundant Configuration Processors
- Telco alarm and event management

## OPTIONAL FEATURES

- Full input and output power monitoring
- Dual AC power feeds



## SPECIFICATIONS

### OPTICAL

Fiber type	Single-mode fiber
Insertion loss	2.0 dB typical
Configuration time	< 20 ms

### ENVIRONMENTAL

#### Temperature

Operating	-5° to 50° C (23° to 122° F)
Non-operating	-40° to +70° C (-40° to 158° F)

#### Humidity

Operating	5% to 90%, non-condensing
Non-operating	5% to 95%, non-condensing

### POWER

Input voltage	-42V to -57V DC
Input current	4A continuous, max.
In-rush current:	7A for 8 ms
Power dissipation	470 mW per connection

### MECHANICAL

Dimensions	29.6"H x 17.5"W x 12.5"D 752 x 445 x 318 mm
Weight	88 lbs. (40 kg)
Shipping weight	149 lbs. (68 kg)

### REGULATORY COMPLIANCE

Safety	UL 60950, EN 60950-1, CSA 69950
EMI/EMC	FCC pt 15, Class A, GR-1089-CORE EN 55022, Class A, EN 55024
Environ.	GR-63-CORE, EN 300019
Eye safety	CFR Title 21 Part 1040 Class I
l/p voltage	ANSI T1.315-2001

### RAS

Reliability	MTBF > 12 years
Serviceability	Hot-swappable FRUs
Indicators	Standard telco alarms