

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.

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.

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



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: 1.75 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. Integrated detectors allow continuous monitoring of optical power on all fibers. Test ports enable any fiber to be remotely connected to shared test equipment, including OTDRs. Other optional carrier-class features include full alarm and event management.

STANDARD FEATURES

- Up to 640 fiber terminations per shelf
- Grow-able in increments of 8 connections
- Dual DC power feeds
- Graphical user interface
- TL-1 command line interface
- Front-panel LC connectors
- Telco alarm and event management
- Output power monitoring
- ANSI or ESTI rack configuration
- 19" or 23" rack mounting

OPTIONAL FEATURES

- Input and output power monitoring
- Dual AC power feeds
- Redundant Configuration Processors
- Latching Battery Power Supply

SPECIFICATIONS

OPTICAL

Fiber type	Single-mode fiber
Insertion loss	1.75 dB typical
Configuration time	<20 ms

ENVIRONMENTAL

<i>Temperature</i>	
Operating	-5° to 50° C (23° to 122° F)
Non-operating	-40° to +70° C (-40° to 158° F)
<i>Humidity</i>	
Operating	5% to 90%, non-condensing
Non-operating	5% to 95%, non-condensing

POWER – FULLY LOADED

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

MECHANICAL

ANSI Configuration	29.5"h x 17.5"w x 12.5"d 752 x 445 x 318 mm
ETSI Configuration	30"h x 17.5"w x 12.5"d 760 x 445 x 318 mm
Weight	84 lbs. (38 kg)
Shipping weight	149 lbs. (68 kg)

REGULATORY COMPLIANCE

Safety	UL 60950, EN 60950-1, CSA 69950
EMI/EMC	EN 300 386 V1.2.1 FCC Part 15, Subpart B GR-1089-CORE EN 55022, Class A, EN 55024
Environ.	GR-63-CORE (NEBS)
Eye safety	CFR Title 21 Part 1040 Class I

RAS

Reliability	MTBF > 37 years
Serviceability	Hot-swappable FRUs
Indicators	Standard telco alarms