



CORNET SWITCHING SYSTEMS

ClearWave 8000m

Automated Remote Fiber Connectivity



ClearWave 8000m is an all-optical fiber switch that lets you effortlessly and reliably manage optical networks remotely. It eliminates the need to manually change fibers from one port to another.

ClearWave 8000m meets requirements for missioncritical applications that must be securely managed. It supports remote fiber connection and redistribution, remote monitoring and testing, and rapid fault isolation and repair in a network operations environment. ClearWave 8000m supports a wide variety of configurations to meet your needs.

Benefits

- Carrier-class reliability and serviceability
- All optical switching
- Able to switch dark fiber and bidirectional signals
- Supports Single Mode fiber
- Fast disaster recovery
- Accelerates fiber connectivity and reconfiguration
- Reduces network downtime
- Eliminates manual connectivity errors
- Enables remote network testing, monitoring and management
- Eliminates abandoned connections
- Supports bandwidth on demand
- Built-in user friendly web GUI interface
- Broadcast Mode
- Meets requirements of MIL-S-901
- IP Interface controlled with industry-standard Session Initiation Protocol (SIP)

Applications

- Automated Remote Fiber Connectivity
- Remote Network Monitoring and Testing
- Government Surveillance and Secure Networks
- Lab Automation
- Video Distribution
- Signal Switching over Fiber

Features

- Fully non-blocking, all-optical fiber optic switch
- Model can be factory configured from 8 inputs x 8 outputs to 192 inputs x 192 outputs
- Bulkhead connectors available from the rear or the front
- Supports data rates in excess of 40G/100G
- Fast connection time
- Switching lifetime of >100 million connections
- No mechanical movement of fiber
- Redundant power modules and redundant Network Interface Cards (NICs)
- Comprehensive Element Management System (EMS) software platform (optional)

Technology

Switch Engine

ClearWave 8000m's switch engine:

- Supports fully non-blocking, physical-layer fabric
- Switches connections regardless of protocol, data rate, or wavelength
- Uses little electrical power
- Does not regenerate light
- Preserves optical signal integrity
- Supports single mode (sm) fiber

Management

ClearWave 8000m is easily managed through its graphical user interface or an SNMP manager. The GUI allows you to effortlessly track what's connected where, at what optical power and for how long.

ClearWave 8000m's graphical user interface supports:

- Flexible port and connection management
- Configurable user access
- Configurable optical power alarm triggers
- Configurable connection patterns
- Secure multiple system management

Typically, ClearWave 8000m is managed using Cornet Switching Systems's Element Management System (EMS) IntelView™.

Specifications

OPTICAL

Switching Time:	25 milliseconds maximum
PDL:	<0.1 dB
Static Cross Talk:	<-50 dB
Insertion Loss:	Typical 1.0 dB, Maximum 2.0 dB*
Return Loss:	Typically better than 50 dB
Loss Repeatability:	±0.1 dB
Switching Lifetime:	>108 cycles
Maximum Optical Input Power:	+27 dBm
Operating Wavelength Range:	1260 - 1675 nm

INTERFACES

Optical Connections:	Options offered for LC, SC
and	E-2000
Electrical Connections:	RJ-45 Ethernet ports for
management	and control
Management Protocols:	TLI, SCPI, SNMP, HTML

ENVIRONMENTAL

Temperature:	
Operating:	+10° C to +40° C (50° F to +104° F)
Non-operating:	-40° C to +70° C (-40° F to +158° F)
Humidity:	
Operating:	<85% RH, non-condensing
Non-operating:	<40% RH, non-condensing

POWER

Input Power:	DC Input: -48 VDC or AC Input: 100-240 VAC 50/60 Hz
Power Supply:	Dual redundant, hot swappable
Power Dissipation:	75 watts

MECHANICAL

Dimensions: LC: 6 RU H x 22" D x 19" W (192x192)

REGULATORY COMPLIANCE

Safety: UL 60950, EN 60950-1
EMI/EMC: FCC part 15, Class A, EN 55022,
Class A

* Measured using the 3 patch-cord method as defined in ANSI/TIA/EIA-526-7-1998