

Fiber Sentinel System

Opterna's Fiber Sentinel System (FSS) is the answer to the security threats of your optical communication infrastructure. Optical communications systems are generally insensitive to anomalies below a certain level due to its wide optical budget considerations during network designing. Even a very well designed optical communication system will come across undetectable/unnoticeable signal variations which if not identified instantly can pose a threat to your data protection and information security.

Opterna's Fiber Sentinel System uses WaveSense Technology™ to monitor such optical anomalies and provides continuous, real-time, protocol independent physical layer monitoring of a fiber optic communication system. It detects any signal variations (including tapping or signal injections), shuts down instantly and isolates affected path in milliseconds, re-routes the traffic to a back-up fiber path (which will also be monitored) and notifies the network administrator.

Fiber Sentinel System thus offers security, network integrity, reliability and redundancy to your optical network.

Features & Advantage

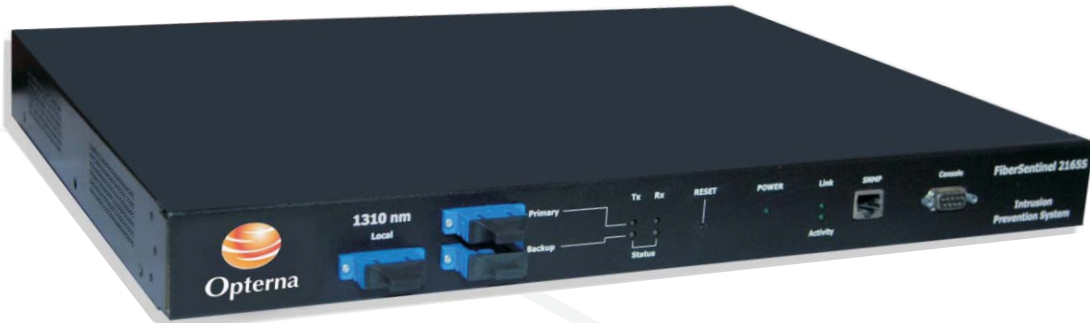
- ☒ Automatically identifies, differentiates, and characterizes nine distinct optical event types like intrusions, optical signal injection by an intruder, cable breaks, transients, receiver overloads, low optical signal levels, loss of data signal, FSS power off conditions and fiber degradation.
- ☒ Fiber Sentinel System is non-evasive
 - ☒ Monitors the optical carrier
 - ☒ Does not decode the data on the optical carrier
 - ☒ Optical path redirected by photon switching
 - ☒ Fully passive - data remains in its optical state and is not regenerated
- ☒ Available in two SNMP versions
- ☒ Provided with Fiber Sentinel user interface.



Applications

- ☒ Telecommunications networks
- ☒ CATV networks
- ☒ Secure data processing networks
- ☒ Government Communications and military infrastructure
- ☒ Communication infrastructure for Law Enforcement, Banking and Intelligence.

Fiber Sentinel System



Opterna's Fiber Sentinel System (FSS) is the answer to the security threats of your optical communication infrastructure. Optical communications systems are generally insensitive to anomalies below a certain level due to its wide optical budget considerations during network designing. Even a very well designed optical communication system will come across undetectable/ unnoticeable signal variations which if not identified instantly can pose a threat to your data protection and information security.

Opterna's Fiber Sentinel System uses WaveSense Technology™ to monitor such optical anomalies and provides continuous, real-time, protocol independent physical layer monitoring of a fiber optic communication system. It detects any signal variations (including tapping or signal injections), shuts down instantly and isolates affected path in milliseconds, re-routes the traffic to a back-up fiber path (which will also be monitored) and notifies the network administrator.

Fiber Sentinel System thus offers security, network integrity, reliability and redundancy to your optical network.

Features & Advantage

- ☒ Automatically identifies, differentiates, and characterizes nine distinct optical event types like intrusions, optical signal injection by an intruder, cable breaks, transients, receiver overloads, low optical signal levels, loss of data signal, FSS power off conditions and fiber degradation.
- ☒ Fiber Sentinel System is non-evasive
 - ☒ Monitors the optical carrier
 - ☒ Does not decode the data on the optical carrier
 - ☒ Optical path redirected by photon switching
 - ☒ Fully passive - data remains in its optical state and is not regenerated
- ☒ Available in two SNMP versions
- ☒ Provided with Fiber Sentinel user interface.

Applications

- ☒ Telecommunications networks
- ☒ CATV networks
- ☒ Secure data processing networks
- ☒ Government Communications and military infrastructure
- ☒ Communication infrastructure for Law Enforcement, Banking and Intelligence.

Fiber Sentinel System

Specification

Dimensions	:	19" rack mountable, 1U 17" x 13" x 1.75"
Electrical		
Power Input interface	:	IEC 320, 3 positions
Input Voltage	:	100 – 240V, 60/50Hz
Environmental		
Operating Temperature	:	0° C to 55° C (32° F to 130° F)
Storage Temperature	:	-10° C to 65° C (14° F to 150° F)
Humidity (operational)	:	0% - 90%, non condensing
Humidity (storage)	:	0% - 95%, non condensing
Diagnostic LEDs	:	Power status, Tx & Rx status Primary and backup paths Link/Activity, Ethernet SNMP Port
General		
Operating wavelength	:	1310nm
Protocols supported	:	Protocol independent
Insertion loss	:	1.5dB typical, 2.4dB maximum
Minimum Channel strength	:	-45dBm
Maximum Channel strength	:	+5dBm
Monitoring resolution	:	0.02dB
Intrusion shutdown time	:	25ms typical
Backup Path switching time	:	< 4ms
Data channel cable type	:	Singlemode
Data channel connector type	:	SC duplex, FC (optional), ST (optional)
Network management	:	SNMP via Ethernet interface, RS232c console port
Approvals	:	FCC Part 15J Class A, CE, UL 1950 - third edition

Ordering Information

