

## FiberPatrol® FP1210/FP1220 Hardened Multi-Zone Intrusion Detection Systems

### Description

The FiberPatrol FP1210 and FP1220 are low-cost additions to the FiberPatrol line of perimeter intrusion detection systems for chain-link fences. These systems feature standalone, environmentally hardened alarm processor modules, packaged as panel-mount boxes (FP1210) or plug-in cards (FP1220). Each processor supports up to four zones, multiplexed in a standard FiberPatrol fence sensor cable and based on the company's proven fiber-optic sensing technology.

#### Out-of-Box Solution for Smaller Sites

The FP1210 system is designed for smaller sites such as rural electrical substations and oilfield wellheads. For quick and minimal-cost deployment, a 4-zone sensor cable for a facility one acre or smaller can be pre-terminated at the factory. The system requires no climate controlled environment and no field configuration or calibration. The processor module automatically adjusts for variable sensor lengths and optical losses and reports any system integrity issues.

#### Multi-Sensor Correlation Processing

One- and two-zone alarm processors are a standard in the security industry. The FiberPatrol FP1210/FP1220 systems are the first to introduce a 4-zone processor module. Combining 4-zone detection in a single unit enables on-board rejection of weather-induced disturbances that, due to their distributed nature, affect all four zones. An intruder, by comparison, can simultaneously disturb at most two zones by climbing at a zone junction point.

#### System Integration: The Bigger Picture

The FP1210/FP1220 modules come standard with all three of the most common alarm interface options: TCP/IP for network-based integration, RS-232 for local hardware integration, and relay contacts for a basic alarm interface. No proprietary equipment is necessary for communicating with alarm processors. The FP1210/FP1220 systems are natively supported by the FiberPatrol Remote Alarm Management System (FPRAMS) and can report to a variety of 3rd-party alarm management systems.

### Features

- > Standalone alarm processor modules
- > Plug-in version for rack-mount chassis
- > Hardened for outdoor deployment
  
- > Self-configuring and self-monitoring
- > No field configuration required
- > DSP-enabled intelligent signal processing
- > On-board nuisance alarm rejection through multi sensor correlation analysis
  
- > Pre-terminated sensors available for quick deployment
- > Up to four sensors per processor
- > Up to 20 sensors per chassis
- > Up to 20 miles of insensitive lead cable
  
- > Relay contact, serial, and IP interfaces
- > Flash-upgradeable firmware
- > On-board alarm history storage
- > DC and AC power options
- > Low power consumption

# Specifications

## System Architecture

Zone Length:	1300' (400 m) recommended 5 miles (8 km) maximum
Zone Count:	4 per processor / 20 per chassis
Max Lead Cable Length:	20 miles (32 km)
Sensor Configuration:	Multiple available

## Sensor Cable

Cable Type:	Gel-filled loose tubes, single jacket, unarmored
Rating:	Outdoor aerial and duct
Fiber Count:	2 sensing, up to 70 spare
Sensing Fiber Type:	Corning SMF-28e+ or equivalent
Optical Loss:	< 0.40 dB/mi (0.25 dB/km) @ 1550nm
Outer Diameter:	0.44" (1.1 cm)
Weight:	55 lbs/kft (82 kg/km)

## Installation

Fence Type & Construction:	Most types of flexible fencing
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## Electrical Power

Protection:	Auto resetting polymer fuses
Consumption / Sensor:	None
Consumption / Processor:	DC Power: <500mA @ 12VDC AC Power: <300mA @ 24VAC
Requirements / Processor:	DC Power: 9-30 VDC AC Power: 12-28 VAC (half-wave, non-isolated) 20 VAC, C.T. from RMC

## Sensor Controller / Optical

Laser Classification:	Class 1
Laser Wavelength:	1550nm

## Connectors

Optical:	ST/PC
Power:	Screw terminal block
RS-232 Data:	Screw terminal block
Network:	RJ-45
Contact Closure:	Screw terminal block

## Environmental

Op. Temp / Processor:	-40°F to +158°F (-40°C to +70°C)
Op. Temp / Sensor:	-40°F to +158°F (-40°C to +70°C)
Humidity / Processor:	0%..95% (non-condensing)
Humidity / Sensor:	No restriction

## Data Interface

<i>Local</i>	
Interface:	RS-232
Data Rate:	115.2 kbps
Format:	XML

### Network

Interface:	10/100Base-T Ethernet
Compliance:	IEEE 802.3u
Format:	XML

## Contact Closures

Form:	A (SPST, N.O.)
Max Current:	150 mA
Max Voltage:	75 VDC
On-State Resistance:	24 Ohms

## Mechanical

Circuit Board:	IPC-compliant
<i>Dimensions:</i>	
Standalone Module:	7.0 x 4.9 x 3.0 in 17.8 x 12.4 x 7.6 cm
RMC Plugin Module:	7.7 x 5.0 x 3.0 in 19.6 x 12.5 x 7.6 cm
Shipping Weight:	3 lbs (1.4kg)

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