

OPTICSENS (Pty) Ltd

**OPTICAL FIBER PERIMETER
SECURITY**

CATALOGUE

Feb 2008

INDEX

	Page No.
1) One to Four Zones Perimeter Detection Unit.	3.
2) One to Four Zones Perimeter Detection Unit with CCTV Motion Detection Support.	6.
3) One to Eighty Zones Perimeter Detection Unit.	10.
4) OEM Products.	13.
5) Optical Fiber Sensor Cable	14.

The One to Four Zones Perimeter Detection Unit.

The one zone expandable to four zones perimeter detection unit is ideal for small perimeter detection areas like Electrical Sub Stations, Mobile Phone Towers (http://www.opticsens.com/Cellular_Base_Station_Security.htm), Radio Towers and small commercial sites. The perimeter detection length can be from 2 meters to 6km with maximum zone lengths of 3.0km for 2 zones and 1.5 km for 4 zones system. Each zone can be placed on top of an existing wire mesh or palisade fence or buried under ground for digging attempts. The unit can be placed inside a control room or outside. A screen can directly be connected to the motherboard for visual alarm display.



Sensor Unit Specifications:

1) Enclosure Specifications:

- External height: 500mm.
- External width: 400mm.
- External dept: 200mm.
- IP Rating: IP66.
- Color: Gray.
- Type: Universal Enclosure.
- Mounting: Wall, Fence, and Palisade.
- Surface Finish: Textured 100% Polyester Powder Paint.
- Single external locking mechanism.

2) Control Processor Specification:

- 1.2 GHz fan-less motherboard.
- 1024 MB RAM.

- 100GB Hard Drive.
- Running from +12V.
- Windows XP Installed.
- Graphics: Integrated VIA UniChrome AGP graphics.
- Onboard LAN: VIA 6103 10/100.

3) Power Supply and UPS function

- Universal input (90-280 VAC, 50/60 Hz) power supply board.
- UPS switch to backup led acid battery when AC fails.
- Automatic charge +12V lead acid battery when AC on.
- Can be connected to an external automotive battery for long backup times.

4) Optical Sensor Specification

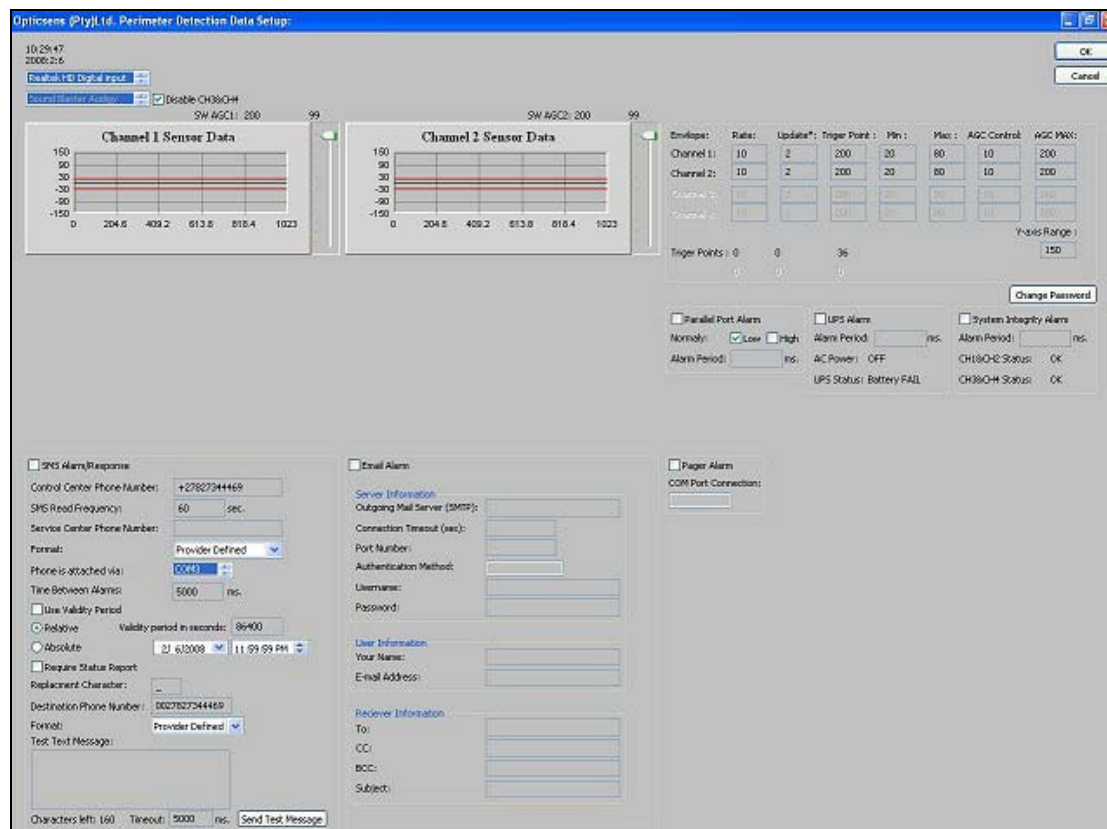
- Runs from +12V with 300mW on 4 zones running.
- Each zone can handle 3km sensor length in loop configuration or 6km in daisy chain configuration.
- Gives an alarm out on sensor cable brakeage, optical source and detector or hardware failure.
- Automatic gain control of optical source to compensate for source aging or environmental temperature fluctuation.

5) GSM Modem Specification

- Integrated Quad Band EDGE/GPRS/GSM modem.
- Data and SMS operation.
- GPRS class 12.
- EDGE class 10.
- Integrated USB-Hub.

6) Lightning Protection

- Lightning Protection can be integrated on AC power source for outdoor operations.



7) Software Specification

- Runs from Windows XP.
- Alarms to Parallel port, Pager system, GSM modem, SMTP server over internet.
- Alarms generated on intrusion detection, AC failure, Backup Battery failure, sensor hardware failure.
- Self adjustable sensing software to reduce false alarms.
- All software parameters can be updated over GSM modem.
- Communicate and update by remote Control room over GSM system.

The One to Four Zone Perimeter Detection Unit with CCTV Motion Detection Support.

The one zone expandable to four zones perimeter detection unit with CCTV motion detection support is ideal for small perimeter detection areas like Electrical Sub Stations, Mobile Phone Towers, Radio Towers and small commercial sites. The perimeter detection length can be from 2 meters to 6km with maximum zone lengths of 3.0km for 2 zones and 1.5 km for 4 zones system. Each zone can be placed on top of an existing wire mesh or palisade fence or buried under ground for digging attempts (http://www.opticsens.com/Perimeter_Wire_Fence_Security.htm). One to four CCTV cameras can be used with motion detection software to add visual confirmation of the intruder attempt. The unit can be placed inside a control room or outside. A screen can directly be connected to the motherboard for visual alarm display.



Sensor Unit Specifications:

1) Enclosure Specifications:

- External height: 500mm.
- External width: 400mm.
- External dept: 200mm.
- IP Rating: IP66.
- Color: Gray.
- Type: Universal Enclosure.
- Mounting: Wall, Fence, and Palisade.
- Surface Finish: Textured 100% Polyester Powder Paint.
- Single external locking mechanism.

2) Control Processor Specification:

- 1.2 GHz fan-less motherboard.
- 1024 MB RAM.
- 100GB Hard Drive.
- Running from +12V.
- Windows XP Installed.
- Graphics: Integrated VIA UniChrome AGP graphics.
- Onboard LAN: VIA 6103 10/100.

3) Power Supply and UPS function

- Universal input (90-280 VAC, 50/60 Hz) power supply board.
- UPS switch to backup led acid battery when AC fails.
- Automatic charge +12V lead acid battery when AC on.
- Can be connected to an external automotive battery for long backup times.

4) Optical Sensor Specification

- Runs from +12V with 300mW on 4 zones running.
- Each zone can handle 3km sensor length in loop configuration or 6km in daisy chain configuration.
- Gives an alarm out on sensor cable brakeage, optical source and detector or hardware failure.
- Automatic gain control of optical source to compensate for source aging or environmental temperature fluctuation.

5) GSM Modem Specification

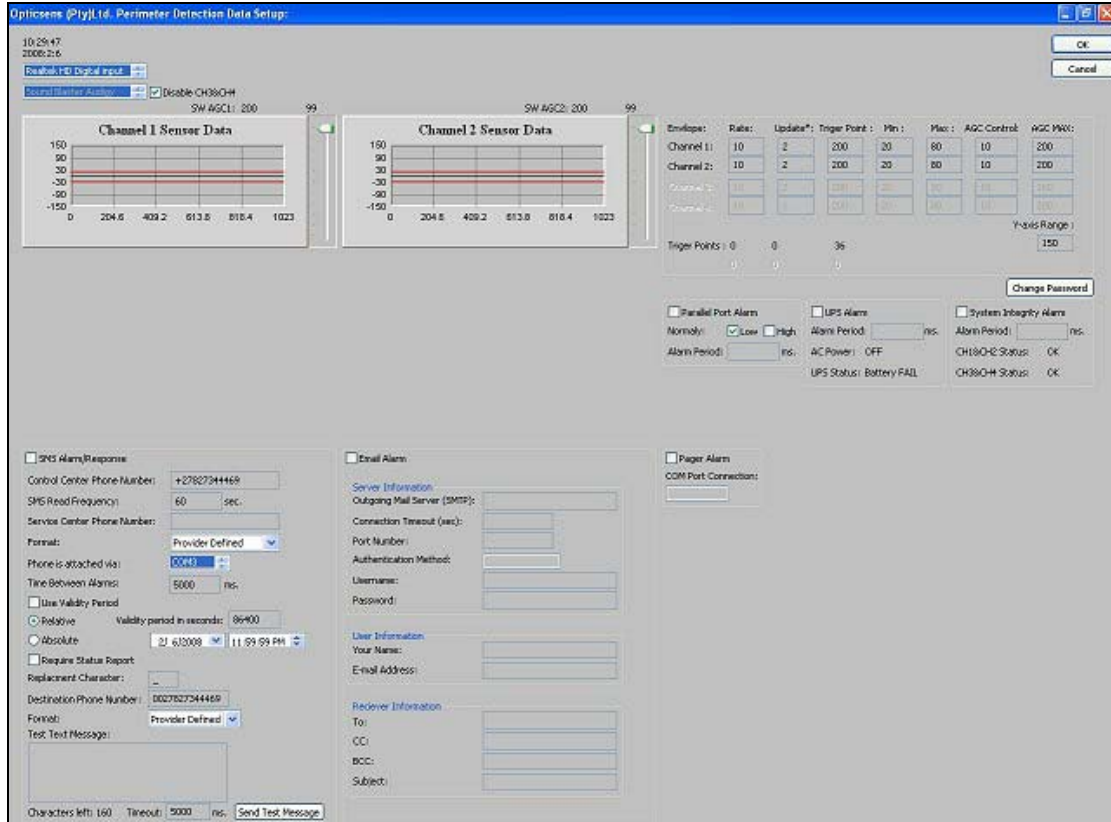
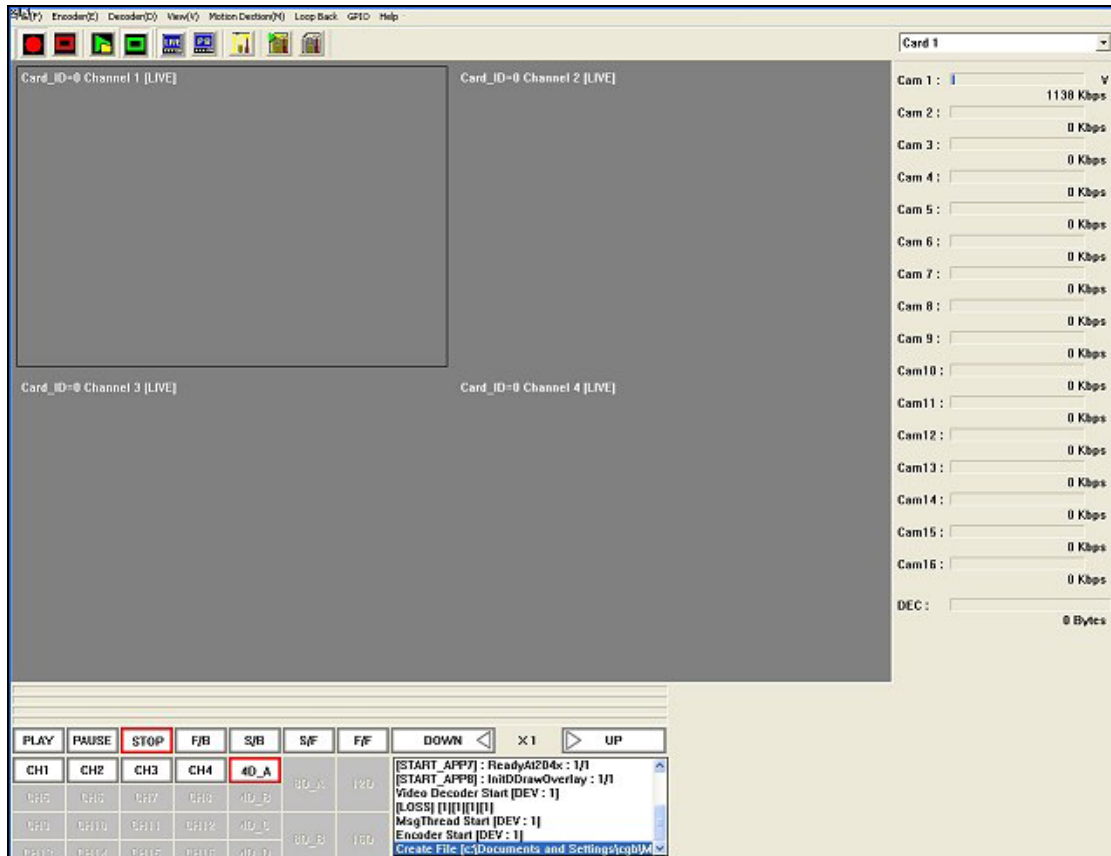
- Integrated Quad Band EDGE/GPRS/GSM modem.
- Data and SMS operation.
- GPRS class 12.
- EDGE class 10.
- Integrated USB-Hub.

6) Lightning Protection

- Lightning Protection can be integrated on AC power source and Coax data cable for outdoor operations.

7) DVR CARD Specifications

- Video input: 4 channels NTSC /PAL /SECAM.
- Video input type: BNC.
- Camera Loss detection.
- Motion detection: Hardware supported.
- Power Consumption: 7.5W, 1.5A at 5V.



8) Software Specification

- Runs from Windows XP.
- Alarms to Parallel port, Pager system, GSM modem, SMTP server over internet. Send captured picture by mms.
- Alarms generated on intrusion detection, AC failure, Backup Battery failure, sensor hardware failure, CCTV camera loss.
- Self adjustable sensing software to reduce false alarms.
- All software parameters can be updated over GSM modem.
- Communicate and update by remote Control room over GSM system.

The One to Eighty Zones Perimeter Detection Unit.

The one zone expandable to eighty zones perimeter detection unit is ideal for small to large perimeter detection areas. The perimeter detection length can be from 2 meters to 60km with maximum zone lengths of 3.0km. Each zone can be placed on top of an existing wire mesh or palisade fence or buried under ground for digging attempts (http://www.opticsens.com/Perimeter_Palisade_Fence_Security.htm). Communication between nodes can be by RS485 or optical fiber. The unit can be placed inside a control room or outside. A screen can directly be connected to the motherboard for visual alarm display.



Sensor Unit Specifications:

8) Enclosure Specifications:

- External height: 500mm.
- External width: 400mm.
- External dept: 200mm.
- IP Rating: IP66.
- Color: Gray.
- Type: Universal Enclosure.
- Mounting: Wall, Fence, and Palisade.
- Surface Finish: Textured 100% Polyester Powder Paint.
- Single external locking mechanism.

9) Control Processor Specification:

- 1.2 GHz fan-less motherboard.
- 1024 MB RAM.
- 100GB Hard Drive.
- Running from +12V.

- Windows XP Installed.
- Graphics: Integrated VIA UniChrome AGP graphics.
- Onboard LAN: VIA 6103 10/100.

10) Power Supply and UPS function

- Universal input (90-280 VAC, 50/60 Hz) power supply board.
- UPS switch to backup led acid battery when AC fails.
- Automatic charge +12V lead acid battery when AC on.
- Can be connected to an external automotive battery for long backup times.

11) Optical Sensor Specification

- Runs from +12V with 300mW on 4 zones running.
- Each zone can handle 3km sensor length in loop configuration or 6km in daisy chain configuration.
- Gives an alarm out on sensor cable brakeage, optical source and detector or hardware failure.
- Automatic gain control of optical source to compensate for source aging or environmental temperature fluctuation.

12) Communication Card Specifications

- Runs from a +12V supply.
 - Inputs: 8 Analog 12bit.
 - Daisy Chain: Up to 10 Boards.
 - Com Ports: RS485/ Fiber Optics. 2.5 miles MM or 9 miles SM.
- http://www.opticsens.com/Perimeter_Sensor.htm

13) GSM Modem Specification

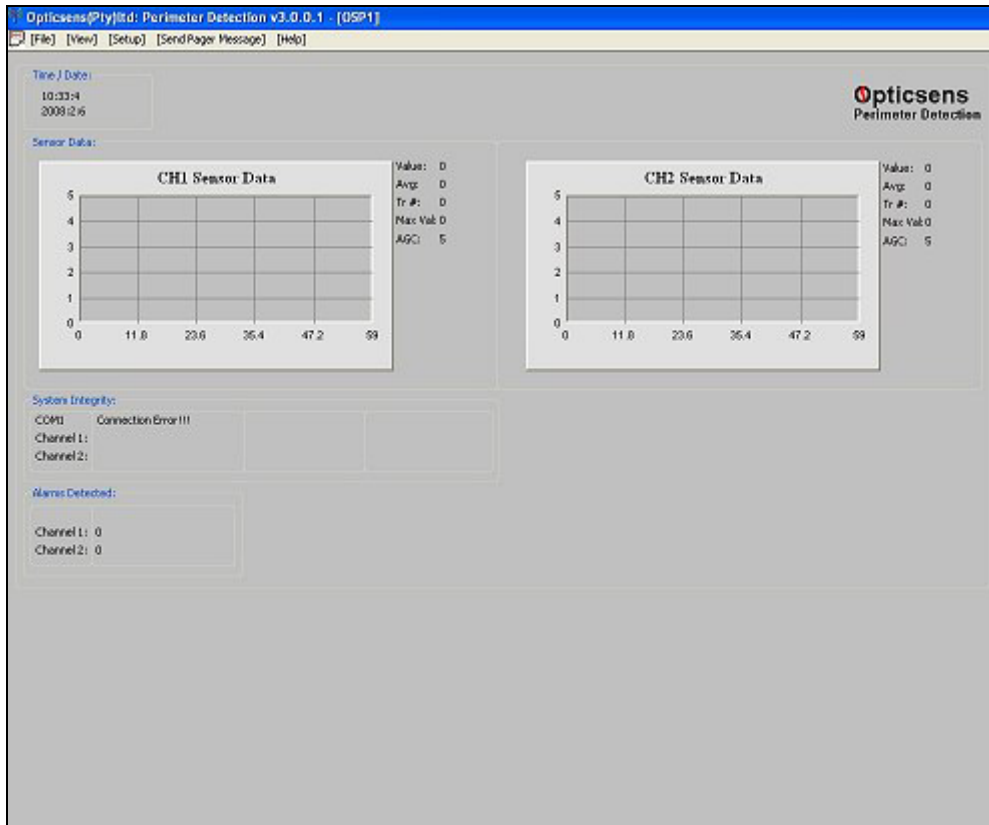
- Integrated Quad Band EDGE/GPRS/GSM modem.
- Data and SMS operation.
- GPRS class 12.
- EDGE class 10.
- Integrated USB-Hub.

14) Lightning Protection

- Lightning Protection can be integrated on AC power source for outdoor operations.

15) Software Specification

- Runs from Windows XP.
- Alarms to Parallel port, Pager system, GSM modem, SMTP server over internet.
- Alarms generated on intrusion detection, AC failure, Backup Battery failure, sensor hardware failure.
- Self adjustable sensing software to reduce false alarms.
- All software parameters can be updated over GSM modem.
- Communicate and update by remote Control room over GSM system.



OEM Products

The Opticsens perimeter sensor card and control software can be supplied as OEM products for incorporating into your custom build sensors. The control room software can also be supplied with customized procedures and mimic maps. Please contact Opticsens for more information mailto: info@opticsens.com

Optical Fiber Sensor Cable



1. Optical Fiber Sensor Cable Specifications:

- Multi Mode 50/125/2mm standard telecommunication cable (black).
- Multi Mode 50/25/3mm standard telecommunication cable with stainless steel outer protection tight buffer (gray).