

# CAM System

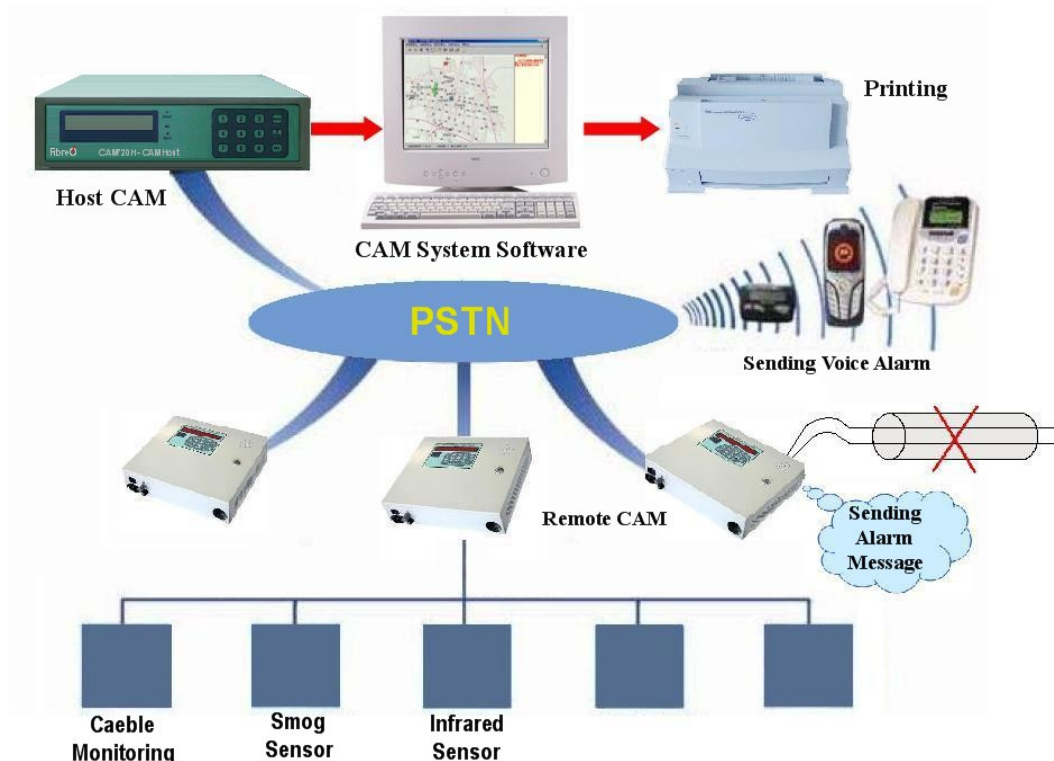
## Cable & Wire Anti-Theft Monitoring System

Telecom and hydro companies have suffered huge asset loss every year due to the cables and wires stolen. Therefore a system is very much desirable that is capable of monitoring cable & wire connectivity 24 hours, sending warning messages within the shortest time to inform the pre-pointed administrator when the problem occurs and simultaneously reporting the position accurately. FibreOptica's Cable & Wire Anti-Theft Monitoring System (CAM system) is the perfect solution to meet the customer requests. CAM system can detect, calculate the distance accurately and send warning messages to multi contacts within as short as 10 seconds. Alerting police and the security department in such short time buys significant time to catch the criminals.

CAM system includes three components – Host CAM, Remote CAM and System Management Software installed to a PC.

- The Host CAM is the core responsible for transferring information between Remote Units and the System Management PC. It can receive and save voice calls and warning messages sent from the Remote Units via PSTN network; it can then forward the message to the pointed contact numbers (fixed line, wireless or pager) or the System Management PC upon request.
- The Remote CAM is responsible for real-time monitoring cables conditions conjunction with various measurements and analyzing the situation. It can be installed anywhere near MDF inside CO or remote CO. When identifying the cables are cut, it will generate a warning message with information of accurate position and voice message within 10 seconds to the pointed contacting numbers, and simultaneously send the same messages to Host Unit via PSTN network.
- System Management Software can require and check information saved inside Host Unit at anytime. It can generate and print a report. It can remotely control and set up parameters of Remote Unit.

CAM system is a smart and much cost-efficient solution. It can minimize the loss and maximally secure the service for the user. This system is not limited to Teleco cable anti-theft monitoring; it can also benefit a hydro company to protect its power lines from being stolen.



## Remote CAM

### Key Features

- The warning message can be recorded by a user using his native language.
- When cables are cut, it will call the host and pointed contact numbers automatically with the prerecorded voice message.
- It can be programmed by a keyboard to setup the monitoring state of the cables and check detailed information -simple, visual and clear.
- Alarm information will be stored to a built-in flash memory – no data loss in the event of power loss.
- Real-time clock & power loss protection.
- Metal Shell prevents interference and inner telephone circuit has lightning protection.
- Control and parameter setup can be managed by System Management PC and Host Unit remotely.
- The optional backup battery can automatically switch on in case of power down.



CAM08/16/32F

### Specifications

Model Number	CAM08F	CAM16F	CAM32F	CAM08N	CAM16N
Capability per unit	8 Lines	16 Lines	32 Lines	8 Lines	16 Lines
Max test distance	28km				
Max loop current	5mA±1mA				
Max voltage on open loop	12V±2V				
Error of auto distance test	±5%				
Alarm responding time	≤ 8 seconds				
Alarm responding time with position	≤ 10 seconds				
Power Input	AC110V/220V or DC48V			AC110V/220V and DC48V	
Backup Battery	N/A	Optional		N/A	
Contact Phone Numbers	9 numbers and up to 14 digits on each number				
Voice recording	up to 12 seconds per monitored line				
Power consumption	≤ 4W	≤ 5W	≤ 5W	≤ 4W	≤ 5W
Operating Temperature	-10°C ~ 40°C				
Relative Humidity	< 80%				
Dimension (mm)	308 (D) x 262(W) x 68(H)			255(D) x 210(W) x 50(H)	
Weight	≤ 2.5kg			≤ 1.75kg (1.5kg w/o battery)	

## Host CAM (CAM720H)

### Key Features

- Various setups can be done using the CAM system management PC
- It will automatically save the received warning messages, turn on the alarm, transfer the alarm message to System Management PC and display, and forward it to pointed contact numbers.
- Alarm can be stopped manually
- Able to recall the latest 10 recorded warning messages.
- Able to search for forwarded phone numbers
- Recording message - for security reason it needs entering a correct code before processing the recording.
- Self-test - it will real-time check key chipsets to ensure the Host Unit works properly.



## Specifications

Monitoring Capacity	999 Remote CAM Units
Alarm storage	Keep the latest 10 messages
Forwarding contact numbers	3 numbers and can be extended to 8 numbers
System responding time	≤ 30 seconds
Communication with Remote CAM units	DTMF via PSTN network
Communication with CAM System Management PC	9 pin RS232 serial port
Input Power	AC 50Hz 220V±10%
Power consumption	≤ 6W
Operating Temperature	-10°C ~ 40°C
Relative Humidity	< 80%
Dimension (mm)	307(D) × 298(W) × 138(H)
Weight	≤ 2.5kg

## CAM System Software (CAM720S)

### Functions

- Able to store all the original data including Remote CAM units, terminal relative data and all the electronic maps.
- Real time monitoring all the alarms occurred including diversified machine room and drive facility parameters changing circumstance.
- Able to remotely set or verify Remote CAM Units and parameters.
- Record all the alarm data for reference and further investigation.
- Generate all the alarm details, record and search results in report forms.
- Record important information like the cause, party, time of arrival, results, repair time and financial loss etc, and issue the case report.
- Able to edit, search and print the detailed information.

### Working Environment

The system can be run on the WINDOWS9X/ME, WINDOWS /NT2000 or Window XP.

### Order Information

Model	Descriptions
CAM720H	Host Unit
CAM08F	Remote Unit – support 8 lines
CAM16F	Remote Unit – support 16 lines
CAM32F	Remote Unit – support 32 lines
CAM08N	Remote Unit – support 8 lines
CAM16N	Remote Unit – support 16 lines
CAM720S	System Management Software

### Distributor Information

Email: