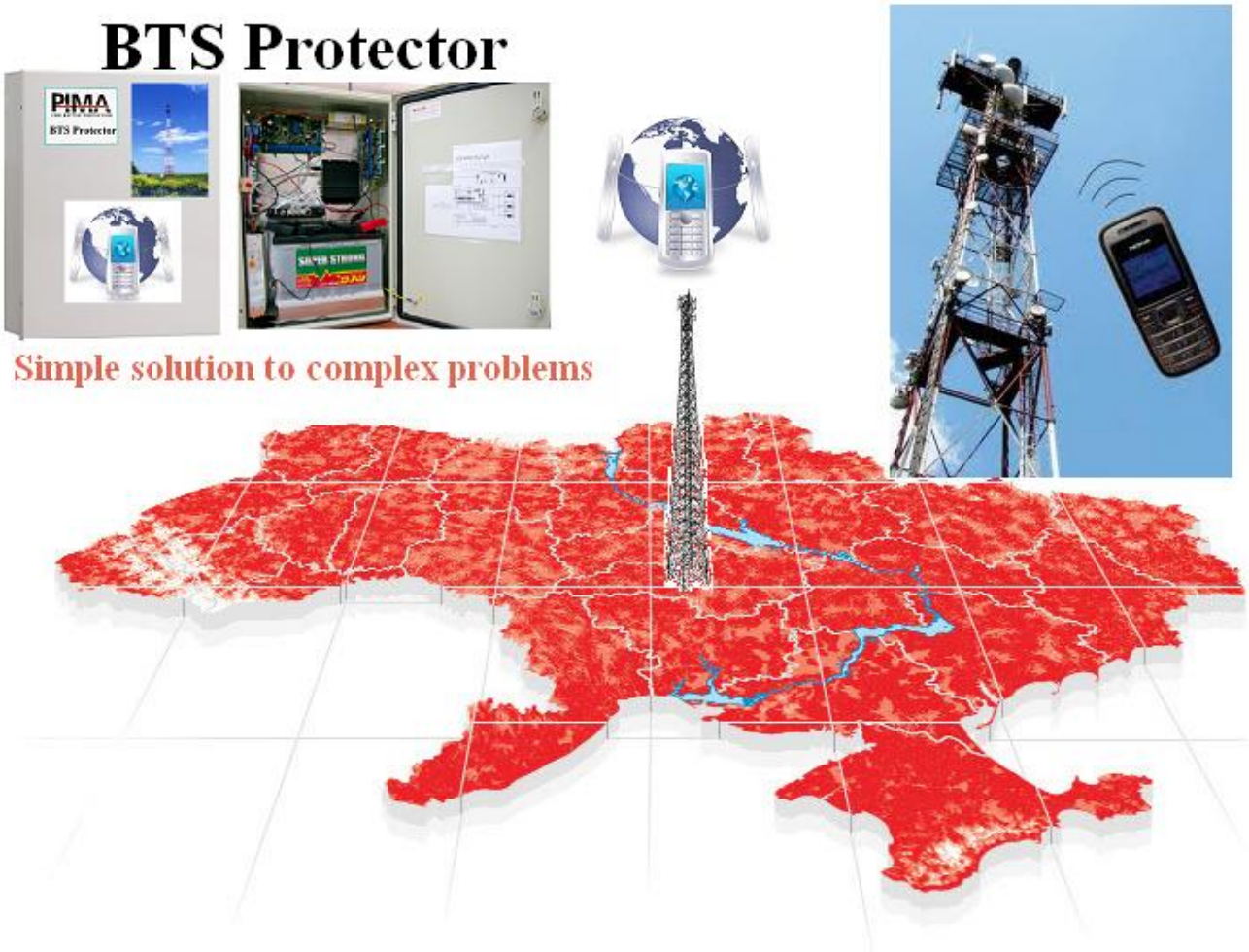
BTS Protector

The integrated system
for cellular providers stations



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Introduction

PIMA's BTS Protector – Base Transceiver Station Protector

Simple solution to complex problems

Based on the intruder alarm experience gained along the years, PIMA has developed a unique and easy-to-operate security system for Cellular Stations, which has no equal on the market.
BTS is a powerful integrated system for intruder protection and remote surveillance of Base Stations of Cellular Communication Providers. The system can be easily adapted to the needs of a particular location, taking into account the specific climatic and geographic conditions. BTS is a versatile system that includes all the required equipment and can be connected to various additional components.

A complete BTS Protector system includes the following Pima products:

Main Equipment:

- Hunter-Pro 832 Intruder Alarm panel
- Battery
- net4pro - IP Tranceiver
- VKD4net-Virtual Keypad
- VVR-S – Video Verification module
- 3G GSM router
- I/O-R Relay expander
- GSM-200 Cellular Tranceiver
- Power supply and battery charger
- External antenna - 2 pcs.
- Rel-1- Relays 3 pcs (high current)

Peripherals:

- Detectors
- Video cameras
- Anti- vandal keyboard RXN-200
- Electronic lock
- Siren/s

And other products according to project requirements

Features:

- ✓ Integrates an extensive range of equipment, depending on the project's requirements
- ✓ Easy and fast installation; simple programming
- ✓ Requires minimal technical skills to install and maintain.

Scope of PIMA's BTS Protector: protecting the base stations of Cellular Communication Providers

Constant surveillance of cellular base station is vital to any mobile operator and expensive equipment needs to be carefully protected from attempts of vandalism, burglary and theft. For this reason the protection of the base stations of cellular operator has paramount importance.
The remoteness and scattered sites of cellular stations require extensive traveling and human resources, and are the main limitation to ensuring effective and round-the-clock protection.

The solution…

PIMA's BTS Protector which allows:

- to organize the CMS
- to constantly monitor an unlimited number of locations and to coordinate the actions of security forces and maintenance employees
- to permanently collect and analyze information about the up-to-date state of the location
- to immediately send alarm signals to a Central Monitoring Station in case of any emergency: fire, flood or an unauthorized access to the location, and also in case of technical issues
- to remotely control and monitor the entire security system of the location
- to automatically send video clips in case of intrusion
- to provide remote energy management; on/off various appliances, lighting, air conditioning, etc.

A brief description of the main components

1. *Hunter-Pro 832 Intruder Alarm Panel*

PIMA's Hunter-Pro 832 is the "brain" of BTS Protector, whose main task is to identify, capture and report any unusual situation in the protected location to the CSM. Hunter-Pro 832 is a professional, reliable, easy to program control panel, expandable to 32 zones and meeting state-of-the-art market requirements. Hunter-Pro 832 is a hybrid system which operates with multiple communication modules (PSTN-Long-range Radio-GSM/GPRS/SMS-TCP/IP)

2. *Battery (not included in standard package)*

A backup battery's aim is to allow the security system to continue to function for up to 3 days in case the main power is off. It is recommended to use a powerful battery of > 75 A/hour when using the BTS Protector, in order to guarantee the operation of all its components.

3. *Communication module to the monitoring station by PIMA's TCP / IP - net4pro*

In order to send alarm signals to a central monitoring station from the BTS Protector by TCP / IP networks, a net4pro module is required. net4pro provides ongoing monitoring of the link between the location and the CMS.

4. *Virtual keyboard VKD4net*

In order to save time and to simplify the alarm panel management of the protected location, PIMA has developed the VKD4net module. There is no need to be physically present at the facility; Setup, control and monitoring are performed remotely over the Internet using a virtual keypad which is displayed on Monitoring Room's screen and fully synchronized with the actual keypad on the location.

5. *Video alarm Verification Reporter- VVR-S*

PIMA's Video Alarm Verification Reporter is integrated with the Hunter-Pro 832 control panel , so once an alarm occurs in a certain zone, the VVR sends a 15 second real-time video clip to the CMS who transfers it to the end-user's mobile phone or PC.

6. 3G GSM Router

A wireless 3G GSM Router is connected to the BTS Protector in order to send alarm signals and video clips via GPRS to the CMS. The BTS Protector system supervises the on-line connection with the monitoring station over the wireless network and reboots the router if required.

7. I/O-R Expander

PIMA's I/O-R expander provides 8 addressable relays outputs. It allows to remotely control the location and its peripheral devices, such as: air-conditioning, lights, doors and more.

8. GSM-200

PIMA's GSM-200 is a panel integrated cellular GSM/GPRS transmitter, which allows to send events to the CMS and to private telephones via voice channel over GSM and via the GPRS channel.

9. Power supply and battery charger

The built-in BTS Protector battery charger and power supply provide uninterruptible power to all the system's components.

Brief description of peripherals

10. Detectors

Depending on the type of the protected object and its degree of protection device, the BTS Protector can be combined with various detectors, such as:

- Movement
- Smoke
- Vibrations
- Leakage of water
- Temperature
- Gas Leak
- Etc.

11. CCTV cameras

An integral function of a comprehensive security system provider station of cellular communication is a CCTV system. Due to the VVR-S module in the BTS system, the camera can be installed on the object. In this case, there is no need to monitor the incoming image 24 hours a day, let the verifier do the work. The main advantages of video surveillance systems over other means of security are: automatic detection and events video control, instant detection of unauthorized access to the protected area, the exclusion of false positives by intelligently processing the incoming information flows, a visual display of all the processed information and the possibility to integrate it with other subsystems of security.
PIMA offers a wide selection of modern cameras. Contact us and together we will select the camera that meets your requirements, cost and quality.

12. Electronic lock and antivandal keyboard RXN-200

As a rule, cellular operator stations are located in inaccessible remote areas without proper control and protection; therefore, the normal keyboard cannot be used. The RXN-200 keyboard, which is an external water-dust-proof, weather resistant anti-vandal dual action keyboard (in an airtight metal enclosure with touch-sensitive keys) for outdoor use, compliant with IP65 can be used. With RXN-200 arming /disarming of the object on /off protection and management of electric locks are possible. The device has a 6-digit access code and in the way of selection the alarm signal will be sent to the central monitoring station.

13. Siren/s

Protected objects must include at least one siren, which activates sound and light signals in case of penetration to the provider station of cellular communications.

Schematic diagram of the connection of BTS components