Satel ®

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UNIVERSAL
MONITORING MODULE
GPRS-A LTE

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GPRS-A LTE UNIVERSAL MONITORING MODULE

Reporting events

- **reporting sources:**
  - control panel audio reporting
  - internal events of the module
  - input violation
  - crossing threshold values on analog inputs and 1-Wire sensors
  - output state change
- **reporting paths:**
  - SMS
  - mobile network* (TCP/UDP)

Notification messaging

- **notification sources:**
  - control panel audio reporting
  - internal events of the module
  - input violation
  - crossing threshold values on analog inputs and 1-Wire sensors
  - output state change
- **notification options:**
  - SMS
  - PUSH
  - CLIP

Data exchange as part of IoT system:

- collecting data from multiple devices on external server
- using transmitted information in any data acquisition systems
- remote control of integrated module outputs

GX CONTROL mobile application for Android and iOS

- checking input status with bypassing capability
- displaying indications from analog inputs
- presentation of readings from connected 1-Wire digital sensors
- controlling and checking output status
- viewing troubles with memory clearing capability
- viewing event memory with filtering capability
- PUSH notifications

Interaction with all control panels

- programmable inputs
- outputs with remote control capability
- converting audio reporting (PSTN) into: SMS, LTE*

Remote output control

- SMS
- CLIP
- GX CONTROL mobile application
- GX Soft configuration program
- IoT

Support for open communication protocols:

- MQTT
- JSON
- JSON/HTTP
- MODBUS RTU

GX Soft configuration program

- intuitive interface
- full module configuration
- viewing event log
- fault diagnostics

Input types:

- digital (NO, NC)
- analog

1-Wire bus

- support for digital temperature sensors
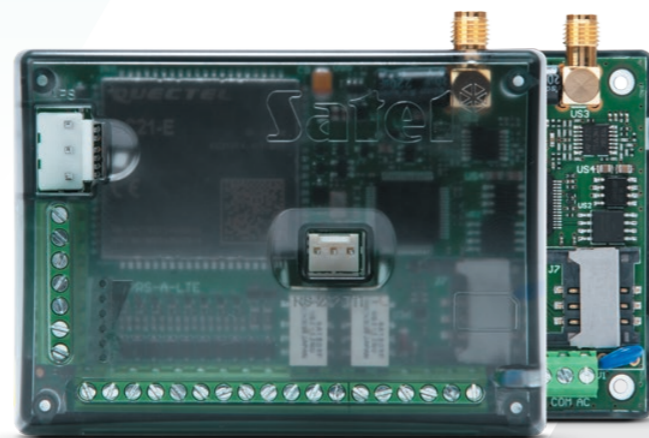
GPRS-A LTE

GPRS-A LTE

*mobile data transmission via LTE/HSPA+/EDGE/GPRS – depending on the capabilities of the mobile network

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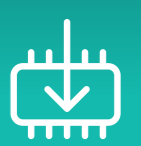
GPRS-A LTE
UNIVERSAL MONITORING MODULE

GPRS-A LTE is an universal monitoring module equipped with telephone designed for use in the 2G, 3G and 4G cellular networks.
The device can work as part of intruder alarm systems as well as automation systems.

It provides reporting from the alarm control panel to the monitoring station and notifies the concerned parties about selected events.
Thanks to its configurable inputs that support analog signals, it can be used to supervise operation of any sensors measuring different physical quantities

and report instances when the set thresholds are crossed.
For the module to interact with prepaid SIM cards, it has been provided with functions required to check the account balance and configure notifications of the balance falling below the minimum amount.

NOTIFYING SELECTED PARTIES OF EVENTS

SENDING INFORMATION TO SECURITY AGENCY MONITORING STATION

IMPLEMENTATION OF REMOTE CONTROL FUNCTION

GPRS-A LTE

SUPPORT FOR DIGITAL AND ANALOG SIGNALS

AUTOMATIC CONTROL
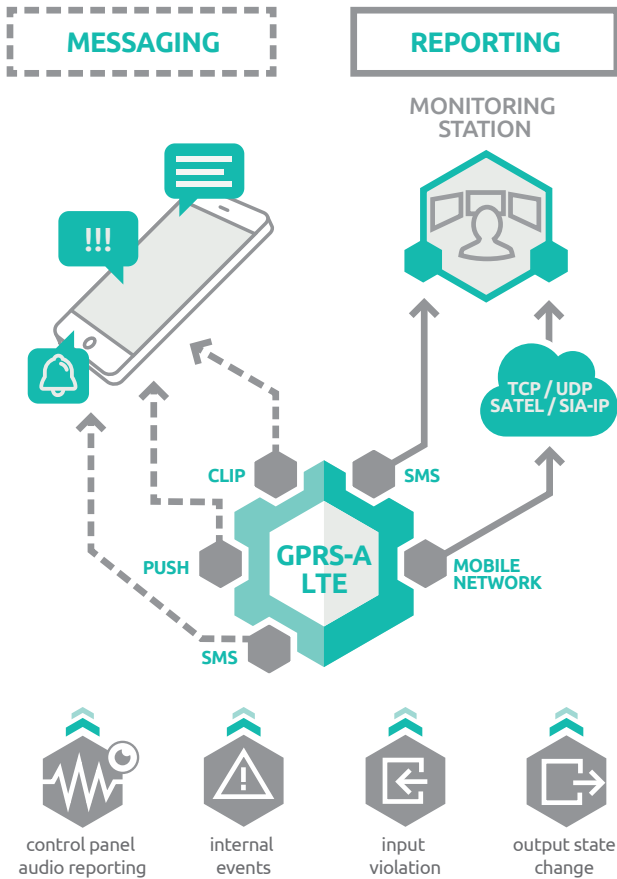
INTERACTION WITH 1-WIRE DIGITAL SENSORS

Full flexibility

The module can be successfully used in many existing and newly built systems. GPRS-A LTE can receive information about events from the connected control panel and forward them to the monitoring stations at security agencies or to the parties concerned via the mobile network. The module connects to the control panel through the control panel dialer (the module simulates the monitoring station) or through appropriately configured control panel outputs connected to the module inputs.

The module can be used to implement remote control functions, such as arming the system or opening the gate, also using the mobile application. The state of module outputs can also be changed automatically in response to specific events.

GPRS-A LTE can give a "new life" to some older alarm systems. It can also work as a stand-alone device, monitoring the state of various devices, automation systems, etc.

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MESSAGING

REPORTING

MONITORING STATION

TCP / UDP
SATEL / SIA-IP

CLIP

SMS

PUSH

**GPRS-A
LTE**

MOBILE
NETWORK

SMS

control panel
audio reporting

internal
events

input
violation

output state
change

Event reporting

As regards reporting, information can be transmitted via:

- data transmission via mobile network – using TCP or UDP protocols
- SMS messages.

Where events are sent using LTE/HSPA+/EDGE/GPRS technology (depending on the capabilities of the mobile network), the module supports two transmission formats:

- SIA-IP (for communication with any monitoring station)
- SATEL (for communication with SATEL made devices: STAM-2 monitoring station or SMET Pro reporting converter).

Notification messaging

The GPRS-A LTE module makes it possible to send notifications to up to 8 telephone numbers.
This function can be implemented by using:

- SMS messages
- PUSH messages
- CLIP service.

The device can send notifications to the recipient through several independent paths. Since the event alert will be transmitted via all of the preprogrammed channels, the information will reach the recipient even when one of them turns out to be unavailable.

Remote control

GPRS-A LTE has 4 outputs, including 2 relay and 2 OC type. They can be remotely controlled and activated in several ways:

- via SMS messages (from 8 numbers)
- from GX CONTROL mobile application
- from a computer with GX Soft program installed
- using CLIP service (from as many as 10 000 numbers).

In addition to controlling the alarm system, the GPRS-A LTE module will be a perfect choice to implement automation functions, including control of lighting, gates, wickets, roller shutters/blinds, solenoid valves, etc. If needed, it will turn on heating, air conditioning, smoke extraction, watering and many other systems.

**GPRS-A
LTE**

SMS
CLIP

GX
1
2
3
4

**GX CONTROL
SMS CLIP**

GX

GX Soft
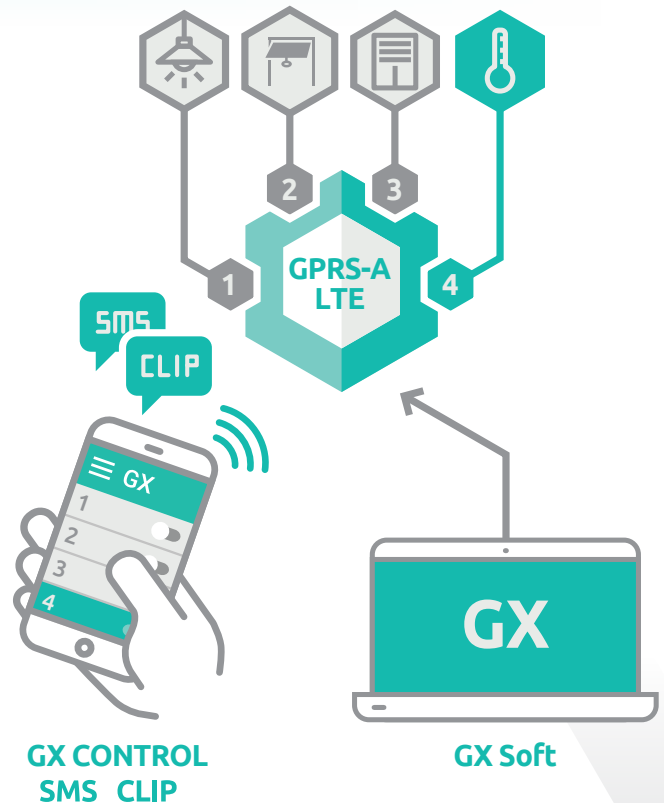
Interaction with detection, measuring and other devices

The module inputs can be programmed as NO, NC or analog ones to work in conjunction with devices provided with NO or NC outputs, as well as with a number of analog sensors and digital-to-analog converters, which offers a great many possibilities for the module use.

The module will convert (rescale) the received analog signal to any unit of measure, including temperature or another physical quantity.

Digital data collection

The device is provided with a digital 1-Wire sensor bus. This allows up to 8 detectors to be connected, the maximum bus length being up to 30 m. When used with the SATEL DS-T1 or DS-T2 sensors, the GPRS-A LTE module will perform very well wherever temperature monitoring plays a crucial role.

Two (upper and lower) threshold values can be assigned to the analog inputs and 1-Wire sensors. Crossing these thresholds may result in:
- sending report to the monitoring stations
- sending notification to the selected parties
- automatic response of the module, i.e. performing a preprogrammed action.

Monitoring premises

GPRS-A LTE can find use in yachts, caravans, cottages, etc. When used in conjunction with a number of detectors, it will reliably protect the interior of the given premises. The module can, for example, send a notification to inform the owner or selected parties that the door is open or an attempt was made to start the engine.

As it can work e.g. with temperature and humidity sensors, the module will be a perfect choice for monitoring environmental conditions during storage of food, medicines, etc. by:
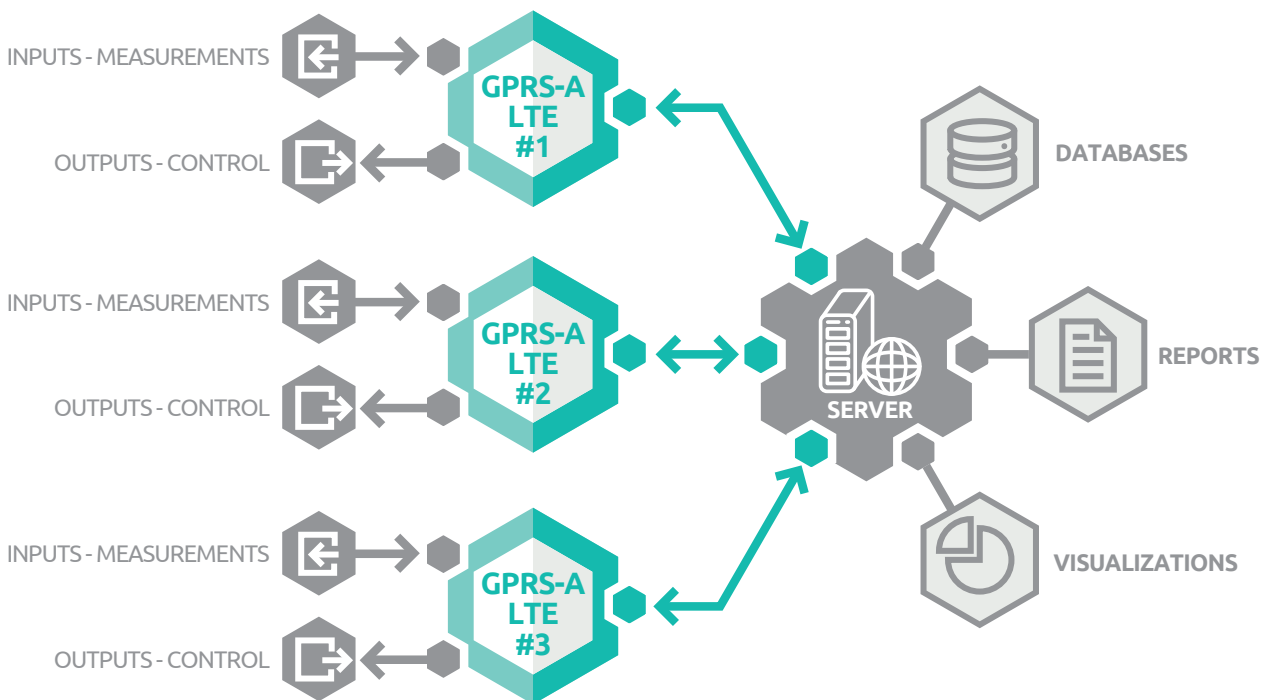- sending information about selected parameters in real time
- triggering alarm when preset limits are exceeded or input state changes
- responding to specific events.

IoT - Internet of Things

The GPRS-A LTE universal monitoring module can be used in conjunction with automation and data acquisition systems. As it can exchange information with other devices by using the MQTT, JSON, JSON/HTTP and MODBUS RTU open communication protocols, its operation fits in fine with the concept of the Internet of Things.

It gives the users a wide range of possibilities of using, processing, storing and visualizing data. Information sent by the module can be processed by using both commercially available software, as well as applications created from scratch

When used as part of IoT, many modules are capable of sending data (via mobile network) to a previously set up server. Such a server can also be used as a proxy to implement remote control of the outputs of all connected modules. The system built in this way is scalable. Communication with the server can be configured from the GX Soft program.

INPUTS - MEASUREMENTS
OUTPUTS - CONTROL
GPRS-A LTE #1
INPUTS - MEASUREMENTS
OUTPUTS - CONTROL
GPRS-A LTE #2
INPUTS - MEASUREMENTS
OUTPUTS - CONTROL
GPRS-A LTE #3
SERVER
DATABASES
REPORTS
VISUALIZATIONS

Collecting information from many modules in one place makes it possible to supervise, for example, a wind farm.

iOS / Android

Mobile access

Mobile applications designed for remote operation of various devices are becoming an increasingly popular solution, which is valued for its user-friendliness.

GX CONTROL is a program created for the needs of SATEL communication modules and intended for Android and iOS platforms. It can be used for:

- verification of the state of inputs and outputs (of connected sensors and devices)
- display of indications from analog inputs and digital sensors
- viewing troubles with trouble memory clearing option
- viewing event memory with filtering capability
- remote control of module outputs (devices connected to them)

PUSH messages give the user permanent access to information.

Importantly, configuration of the application is very simple, and so is connection with the module. All you have to do is send an SMS from the application level to the device and receive the configuration data in response. Another, equally convenient way is to scan the QR code that is generated in the **GX Soft** program or in a preconfigured application.

Functional software

GX Soft is an advanced tool with a friendly and clear interface, intended for configuration as well as diagnostics of SATEL communication modules. It gives the installer access to all functions of the device and to program operation of the module so that it can meet requirements of the specific system, as well as expectations of the system users. The module and the program can interact locally (via RS-232 (TTL)) or remotely (via mobile network).


Easy and secure connection

Thanks to the SATEL connection set-up service, you can enjoy many functionalities of GX CONTROL and GX Soft. Configuration of communication between the application / program and the GPRS-A LTE module takes just a few moments, without any need to use external IP address or advanced network settings. When being sent, the data are encrypted using a sophisticated algorithm to ensure security of the transmission.

GX CONTROL

GPRS-A LTE → SATEL CONNECTION SETUP SERVICE → Android / iOS / GX Soft (Windows)

Remote software update

GPRS-A LTE is compatible with the UpServ (update server), which enables the device to be remotely updated. This allows the installer to quickly add new functionalities without having to physically visit the premises and dismount the module.
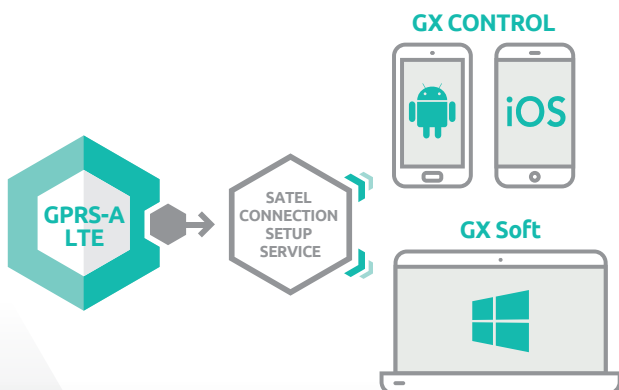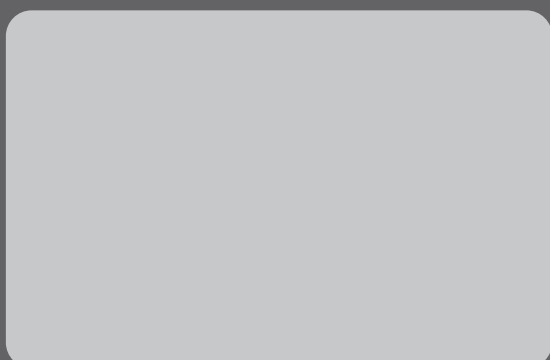
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The manufacturer reserves the right to change the specification and technical data of devices.
Images shown are for general information only and may differ from actual products.
U-GPRSALTE-EN0723

30 YEARS OF EXPERIENCE

Professional protection of each type of premises, as well as people staying therein, through advanced, yet functional and cost-effective solutions – these few words may serve as the shortest description of the mission of SATEL, a manufacturer of security systems with involvement of 100% Polish capital. Due to integrity in business and a special emphasis on high quality and a wide range of products offered, the SATEL brand has been highly appreciated in the industry for 30 years.

This philosophy of management and hard work of more than 350 SATEL's employees produce tangible results. The wide range of over 400 offered products provides countless opportunities to create security, home automation, fire alarm, access control and monitoring systems, tailored to the individual needs of each user. At the same time, these systems meet all requirements prescribed by Polish and international regulations and industry standards.

Bringing the functionality of devices into line with current requirements and expectations of the market with the use of the latest technologies is one of the main objectives of SATEL. For this reason the design and production departments of the Company are continuously being modernized and expanded. A natural consequence of all actions aimed at the production of top-quality devices was the introduction of the quality management system conforming to ISO 9001 in 2002. Regardless of this certification, SATEL also carries out a full functional test of all products leaving the production line, thus ensuring reliability of the manufactured devices. Focusing on modern design and attaching importance to the highest levels of quality and functionality of its products, SATEL has gained many satisfied customers not only in Poland but also in more than 50 markets worldwide.