Integrated monitoring station
with micro server

STAM-IRS

EN

CE

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IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual in order to avoid mistakes that can lead to malfunction or even damage to the equipment.

Disconnect power before making any electrical connections.

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

SATEL aims to continually improve the quality of its products, which may result in changes in their technical specifications and software. Current information about the changes being introduced is available on our website.
Please visit us:
https://support.satel.pl

The declaration of conformity may be consulted at www.satel.pl/ce

Signs in this manual


Caution – information on the safety of users, devices, etc.


Note – suggestion or additional information.

STAM-IRS is a dedicated server to be used with the STAM-2 monitoring station which enables receiving transmissions sent via telephone line, Ethernet network (TCP/IP) or GSM network (SMS and CLIP).

Register the STAM-2 monitoring station within 31 days since you installed the STAM-2 Server program. After this time, the program will stop working. Register the monitoring station in the SATEL license management service. For instructions on how to do it, go to the STAM-2 monitoring station manual.

1. Features

- Energy-efficient ASUS PRIME platform, functioning as a data server and ensuring communication with the event receiver cards.
- Support for up to 17 event receivers:
  - up to 14 cards (telephone or Ethernet), installed in PCI slots;
  - up to 3 GSM modules, connected to COM / USB ports.
- 2 low-power drives: NVMe and SSD.
- 5'' LCD display to facilitate local management of the server.
- Installed WINDOWS 11 Pro operating system.
- Capability to restore the system from a backup copy.
- Cyclically saving copies of data.
- Enclosure enabling installation in 19" rack cabinets.
- Possibility of connecting a monitor via the DisplayPort standard interface.
- Built-in ATX 400 W power supply.
- Power supply short-circuit and overload protection.
- Possibility to program and configure the STAM-IRS system and operate the monitoring station in the STAM-2 Server and STAM-2 Client programs (installation files and documentation available at www.satel.pl).

2. Description

Fig. 1. STAM-IRS system.

The type of base receiver card – either telephone or Ethernet – is chosen by the Customer during purchase.

Fig. 2. TFT LCD display with function button panel.

Explanations for Fig. 2:

1 – system reset button;
2 – green LED to indicate device power on status;
3 – red LED to indicate disk drive running status;
4 – system power-up button;
5 – 2 USB 2.0 ports;
6 – 5” TFT LCD display.

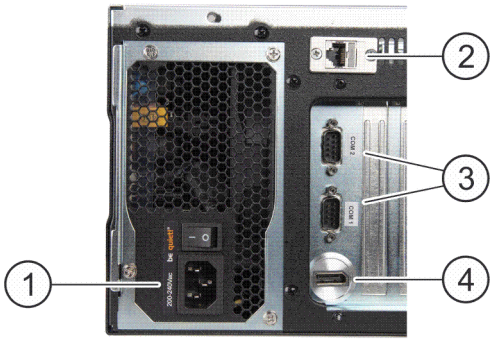

Fig. 3. STAM-IRS – fragment of rear portion.

Explanations for Fig. 3:

1 – socket with a switch for connecting 230 V supply;
2 – port for connecting LAN network;
3 – 2 COM ports:
  – 1 port for connecting basic card,
  – 1 port for connecting a SATEL GSM module;
4 – DisplayPort socket for connecting a monitor (only digital signal is sent).

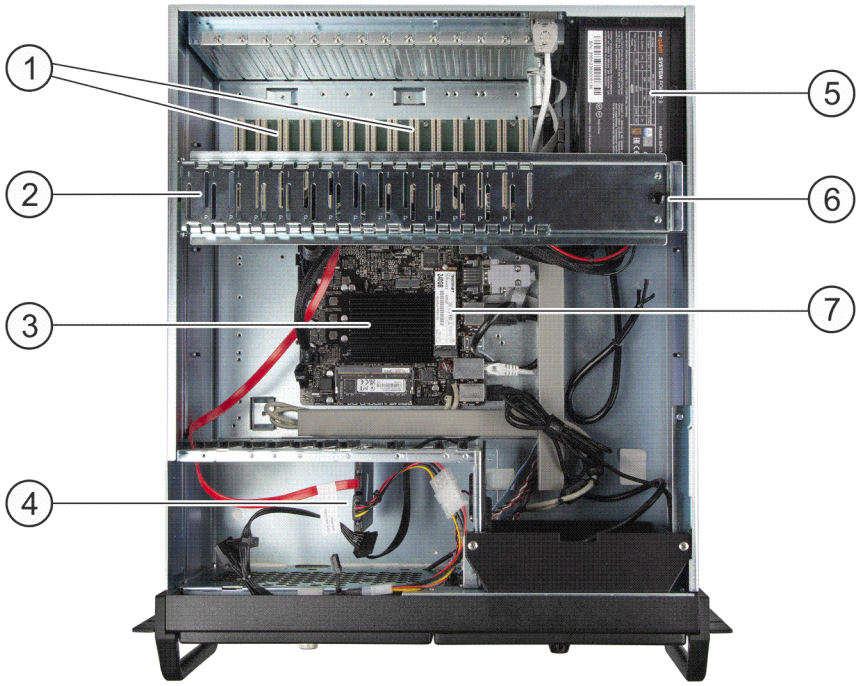

Fig. 4. STAM-IRS device with its enclosure top cover removed.

Explanation for Fig. 4:

1 – 14 PCI slots for connecting telephone or Ethernet receiver cards – the system is capable of accepting up to 14 cards (base cards and expansion cards of various types);
2 – metal rail to stabilize the cards;
3 – mainboard;
4 – SSD type backup drive – installed on rail 0 (SATA 0), constituting a security copy of the main drive;
5 – ATX 400 W power supply;
6 – locking element for metal rail (to unlock the rail, pull the element up);
7 – NVMe type main drive – installed on the mainboard, intended for current operation of the device.

The STAM-IRS device is delivered complete with:

- keys for closing the display door to prevent unauthorized access,
- device power cable. Connection cables for base and expansion cards are delivered with the cards and are not included with the STAM-IRS system,
- envelope containing the product key for Windows activation (the product key is a 25-character code).

3. First start-up of the system

Prior to the first start-up of the system, carry out the following operations:

1. Use the included cable to connect the base receiver card DB-9 connector to the COM port.
2. Depending on the type of installed base receiver card, connect the telephone line or network cable to the card socket.
3. Connect the keyboard to the USB port.
4. Connect the mouse to the USB port.
5. Connect the network cable to the LAN connection port.
6. Connect the STAM-IRS device to power source, using the included cable.
7. Power on the device.

8. Click the “Start” icon on the taskbar or press the “Windows” key / Ctrl+Esc keys to open the “Start” menu.
9. Select commands: Setting > System > Activation > Change product key.
10. In the window that will open, enter the provided product key. Follow the instructions on the screen.
11. Download and install the STAM-2 Server and STAM-2 Client programs available on the www.satel.pl website. For detailed information on the programs and their configuration, refer to the manual delivered with the STAM-2 monitoring station.

To install the STAM-2 Server program you will need the protection dongle. Remember that it must remain in the USB port after the program is installed. If the dongle is removed for more than 30 minutes, it will be unregistered. The program's functionality will also be limited (see: STAM-2 monitoring station manual). 2 weeks after the dongle is unregistered, the program will stop working.

4. Installation of additional modules and cards

Prior to installation of additional modules and cards, make sure that the system is deenergized.

If it is necessary to connect expansion cards and GSM modules, the following installation procedure is recommended:

1. Turn off the system power supply.
2. Set addresses of the cards to be additionally installed.
3. Remove the top cover of the device.
4. Unlock the metal rail (shown as item 2 in Fig. 4) and remove it.
5. Install the cards in PCI slots.
6. Use the cables delivered with the expansion card to connect the new card to the one already installed.
7. Depending on the type of installed card, connect the telephone line or network cable or, optionally, synoptic board to the card socket.
8. Install GSM modules (see manuals delivered with particular modules).
9. Using suitable cables, connect the GSM modules to the COM port or the USB port. The connection can be made with the SATEL USB-RS converter.
10. Put back the metal rail and lock it.
11. Turn on the system power supply.

5. Copying the database

The database can be automatically backed up. You can define the rules of the backup. In case of a main drive failure, or loss of the database, the backup copy will be used as a source for database restore. To enable the database backup, go to the STAM-2 Client program, “Configuration” window, “Settings” tab, and proceed as follows:

1. Enable the “Active” option.
2. In the “Source folder” field, enter the access path to the folder in which the STAM-2 database is to be saved (by default: C:\Program Files (x86)\Satel\STAM-2\Server).
3. In the “Direct folder” field, enter the access path to the folder in which the database backup copy is to be saved (by default: D:/Backup STAM-2).

   Remember that the direct folder must be located on a different drive than the STAM-2 database.
4. In the “Scheduler” window, define when you want the database backup copy to be made. The backup copy will then be automatically made at a specific time (which can be every day at a set time or on selected days at a set time).

6. System recovery

6.1 Operating system failure

In case of the operating system failure:

1. Using a suitable button, switch the device off and then switch it on again.

To perform further operations, use the keyboard connected to STAM-IRS.

2. Using the keyboard arrow keys, select the “Windows Recovery” option on the system screen that will be displayed. Further stages of the system restore procedure will be displayed on the screen.
3. When the “debian login” is displayed, type in “root” and press ENTER.
4. Type in “12345” in the “Password” field and press ENTER. It will start the system restore procedure, which can take about 30 minutes.
5. When the system is restored, the computer will restart.

As the system will be restored with its factory settings, you will have to install the STAM-2 Server and STAM-2 Client programs, configure the server and monitoring station, as well as the receivers connected to it. You must also restore the station database, using the database backup copy.

6.2 Main drive failure

In case of a failure of the main drive (installed on the mainboard):

1. Switch off the device power supply.
2. Remove the top cover of the enclosure. Remove the screw fastening the defective drive and slide the drive out of the slot.
3. Slide the new drive back into the slot and fasten the screw.
4. Switch on the device.
5. Proceed further in the same way as during a failure of the operating system (see “Operating system failure”).

In case of failure of the spare drive, it is recommended to contact the installer.

7. Specifications

Supply voltage ..... 230 VAC
Average power consumption from 230 V mains (with 1 card connected) ..... 20 W
PCI slots for cards 14
COM ports 2
USB 2.0 ports 4
USB 3.2 ports 3
Operating system ..... Microsoft Windows 11 Pro
NVMe main drive ..... 240 GB
SSD spare drive ..... 240 GB
Display ..... TFT LCD with support for 800 x 480 resolution
Working temperature range ..... 0°C…+35°C
Maximum humidity ..... 90 %
Enclosure dimensions ..... 55 x 48 x 17.7 cm
Weight (without cards) ..... 14.5 kg