



RT4-5GL object module

V.34-20

Programming manual

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Device features

- Ability to transmit information via both SMS and GPRS channels;
- Working with two SIM cards (main and backup);
- Two IP support for transmitting via GPRS channel (main and backup);
- Ability to connect to server using domain name;
- 254 event log;
- Ability to remotely configure module parameters and update module firmware version via GPRS;
- Ability to control other GSM devices using SMS messages;
- USB port for device programming;
- Indication of the status of both SIM cards, power status, and data transmitting;
- 5 general purpose inputs;
- Power supply control input;
- 2 general purpose outputs/PGMs;
- Two communication ports for connecting to the control panels;
- Ability to work in control panel mode;
- Ability to activate preprogrammed command by calling to the module;
- Ability to send e-mail messages;
- Up to 4 user support;
- Two switchable message modes: "User" and "Modem";
- Periodic channel test;

Technical information

GSM protocol	E-GSM 900/1800/GPRS
GSM modem	Quectel
SIM type	MicroSIM
SIM interface	3 and 1,8 V
Number of users	4
Output capacity	1A
Max voltage on the closed output	30V
Max input voltage	30V
Power supply	10 – 30V
Input current (at 12V supply)	15mA
Input current in GPRS mode	150mA
Dimensions	68x125x19 mm

General information

RT4-5GL object device is designed for collecting information from control panel, it's processing and transmitting to the Central Unit. Device can transmit information up to 4 users simultaneously. First user can receive information either via GPRS or via SMS, other users – only via SMS.

Module can work with two SIM cards, the first SIM card is considered the main one, the second – backup. In case the first SIM card fails to work for any reason, module starts working with the second one. At the same time module periodically tests the first SIM card, and if it is operational, returns to working with it.

Module also supports work with two IP addresses. The first IP address is considered the main one, the second - backup. When module loses connection with the main IP address, it tries to connect to the second one. While connected to the second IP address, module periodically tries to establish connection with the main IP address. If successful, module returns to working with the first IP address. You can use domain name in the place of the first IP address.

Module has 5 general purpose inputs, power supply control input, 2 outputs that can be used either as PGM or as manually activated outputs, two communication ports that are used for connecting various security panels, and power output for connecting different interface devices and module outputs.

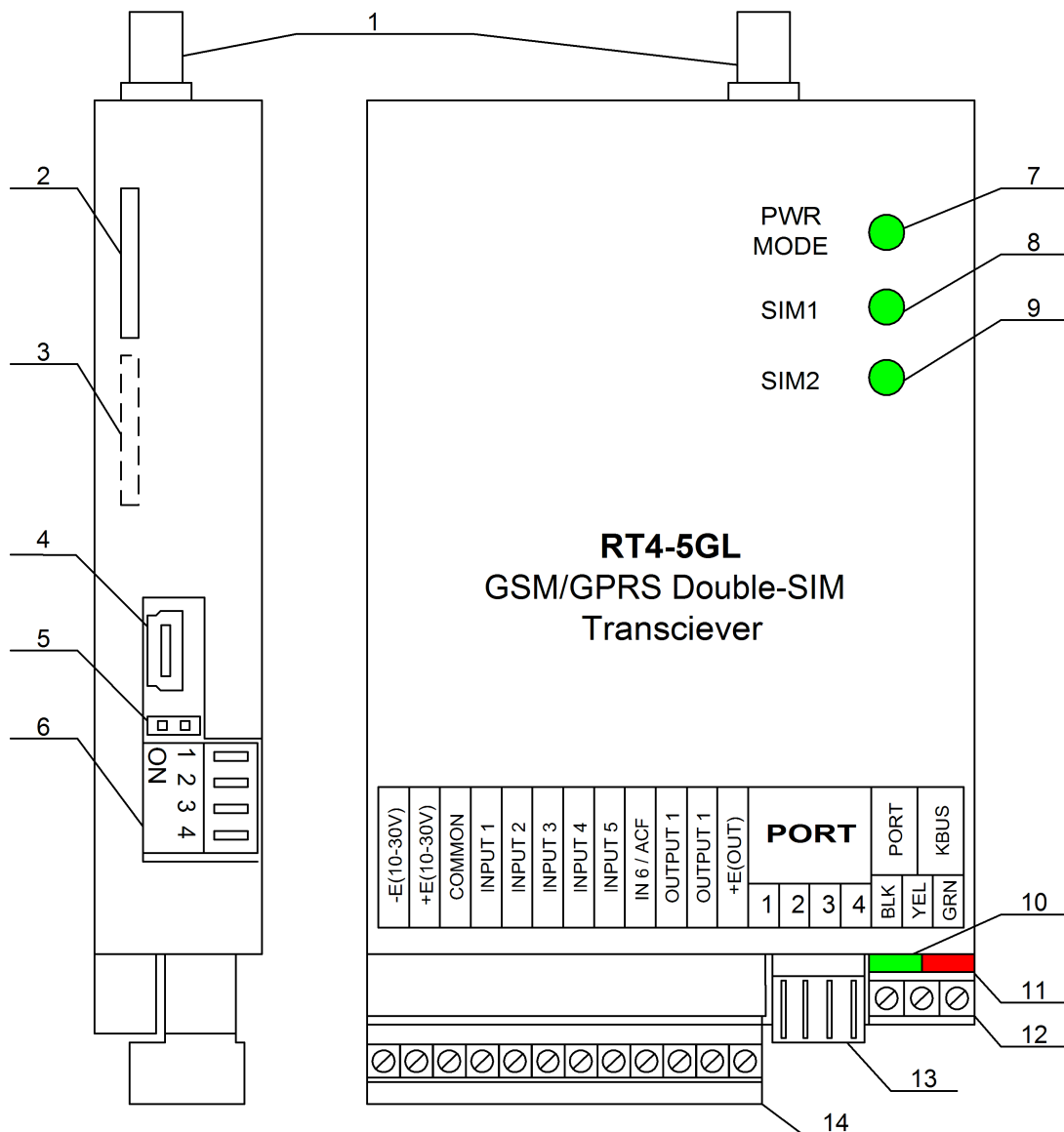
Version 1.2 **RT4-5GL** module has 9* switchable working modes:

1. working via Serial BUS protocol
2. working with Caddx NX control panels
3. working in control panel mode
4. working with Esprit control panels
5. working with Magellan control panels
6. working with one- and two-partition DSC panels using Key-BUS protocol
7. working with multi-partitioned DSC panels using Key-BUS protocol
8. working with Digiplex control panels
9. working with ABAS II address bus

RT4-5GL also controls it's power level and transmits alarm message in case it is lower than normal.

* Number of working modes may be increased in the future.

Module appearance



Pic.1. RT4-5GL module.

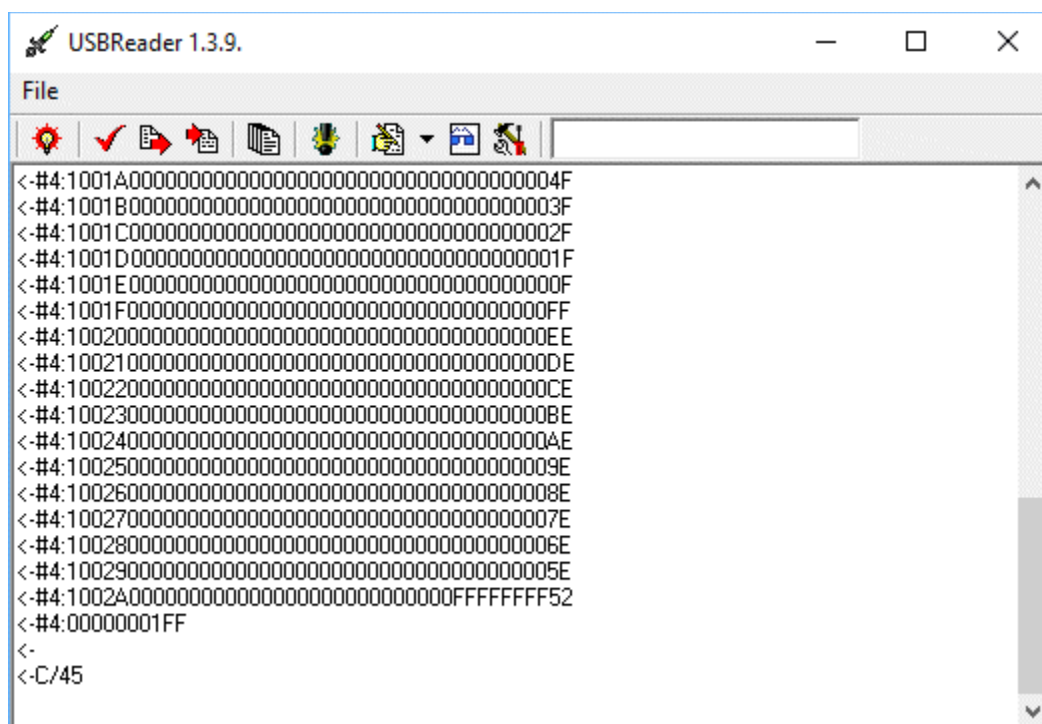
1. GSM antenna connector (SMA-F)
2. Main SIM holder (Micro SIM)
3. Backup SIM holder (Micro SIM)
4. Mini USB for module programming
5. Jumper to control input load
6. Dip-Switch for changing working mode
7. Power and mode indicator
8. SIM 1 status and signal strength indicator
9. SIM 2 status and signal strength indicator
10. First communication port indicator (PARADOX panels, interfaces and expanders)
11. Second communication port indicator (DCS and CADDX NX panels)
12. Communication port for connecting DCS and CADDX NX panels
13. Communication port for connecting PARADOX panels, interfaces and expanders
14. Terminal block for power supply and external devices wiring.

Programming using USB port

In order to program device parameters You will need **USB_Reader** software version **1.3.9** or higher.

USB Reader software: general information

USB_Reader software is designed for programming module parameters, configuring user permissions and message sending addresses, event log downloading, code table uploading and updating module firmware. Main software window is shown on the Pic.1.



Software main window.

Getting ready for programming and software configuration

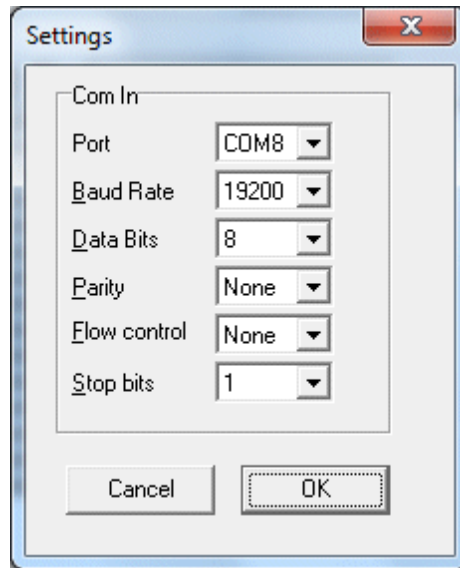
Device programming is made using **USB Reader** software via PC USB-port.

When You are connecting device to the PC for the first time, You will have to install drivers, so device would be recognised correctly.

When You connected the device to the PC, operating system might ask You to install drivers. In that case, You have to select the option to manually select the drivers and select the path to the **drv** folder. After the drivers are installed, You can start device programming.

To activate device programming mode, simply connect it to the USB-port. Module also enters programming mode if both SIM cards are not inserted. After **POWER/MODE** indicator turns red, you can start device programming.

In software settings You will need to specify number of the port that will be used to connect to the module. Settings window can be opened by pressing  icon (Settings).



Port settings window.

In this window You have to choose port number that will be used to connect to the module. It is recommended to leave other options in the default state as shown in the picture. It is recommended that port number would be lower than 10. If by default port number was set higher than 10, you can change it in the “Device manager”.

If connection to the module was successful, “Ready” icon will look the following way: .

Otherwise it will look like this: .

USB_Reader software: Event log download.

Using the software, You can download device event log for further processing.

Log contains up to 254 events. To download log, press  icon. Than specify the path to the folder, where you want to save you .log file, choose a name for it and press **Save**.

To open saved file, press  icon and specify a specify the path to the file.

USB_Reader software: event table upload.

In case You need to update the code tables for security panels information decoding, You have to use  icon. After You pressed it, specify the path to the .hex file that was provided by the developer and press **Open**.

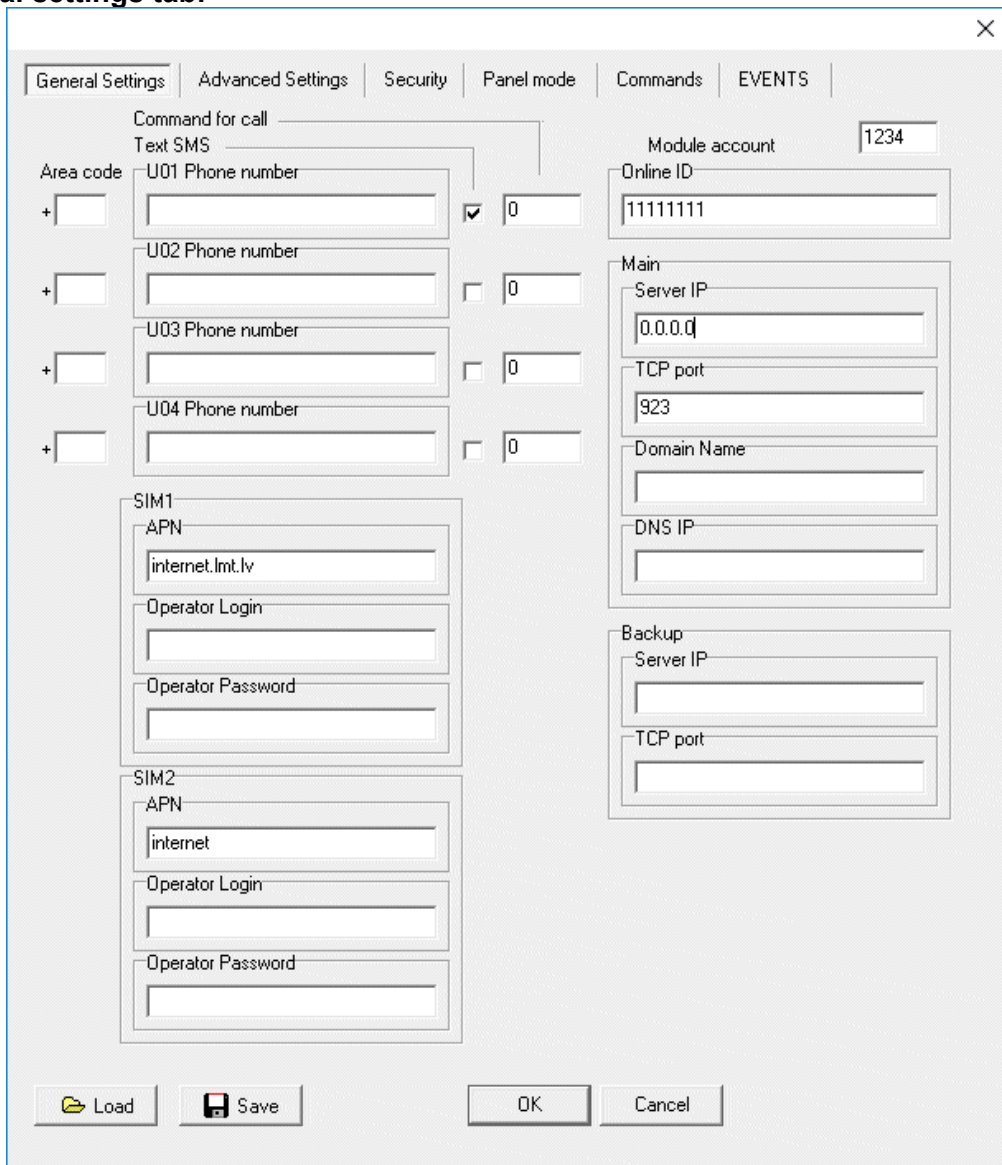
USB_Reader software: module programming

Module programming is initiated from the main menu **File/Read** or by pressing  icon. When initiated, all the current settings are downloaded from the module and displayed in the programming window. Programming window consists of six tabs:

- 1) General settings – general module parameters
- 2) Advanced settings – additional module parameters
- 3) Security – activation and change of the security code
- 4) Panel mode – security panel mode parameters
- 5) Commands - user permissions
- 6) Events – message sending options

After you finished configuring module parameters, press **OK**. In that case, new parameters will be saved into module. To save this configuration into the file, press **Save** and specify file name and save path. To load previously saved configuration file, press **Load** and select the file to load parameters from. **Load** and **Save** commands are only available when programming window is active (before You press **OK**).

General settings tab:



The screenshot shows the 'General Settings' tab of the USB_Reader software programming window. The window has a title bar with a close button (X). Below the title bar are six tabs: 'General Settings', 'Advanced Settings', 'Security', 'Panel mode', 'Commands', and 'EVENTS'. The 'General Settings' tab is active. It contains several input fields and checkboxes. On the left, there are four 'Area code' fields (U01, U02, U03, U04) each with a '+' button and a 'Phone number' field. To the right of these are checkboxes and a '0' button. Below these are two SIM card sections, SIM1 and SIM2, each with 'APN', 'Operator Login', and 'Operator Password' fields. On the right side, there are fields for 'Module account' (1234), 'Online ID' (11111111), 'Main' section with 'Server IP' (0.0.0.0), 'TCP port' (923), 'Domain Name', and 'DNS IP'. Below these are 'Backup' section with 'Server IP' and 'TCP port' fields. At the bottom, there are three buttons: 'Load' (with a folder icon), 'Save' (with a floppy disk icon), and 'OK' and 'Cancel' buttons.

In this tab You can configure module account and Online ID, user phone numbers and both servers addresses.

Parameter description is given in the table below.

Table 1. Module general settings.

Parameter	Default value	Description
U01 Tlf number	not specified	First user (Central Unit) phone number
U02 Tlf number	not specified	Second user phone number
U03 Tlf number	not specified	Third user phone number
U04 Tlf number	not specified	Fourth user phone number
Area code	not specified	Area code for each of the phone numbers
Text SMS checkboxes	not active	Checkboxes determine SMS message format for each of the users. Active - "User", deactivated - "Modem".
Command for call	not specified	In those fields are specified commands that are activated by phone call from the current user.
SIM1: APN	Internet.lmt.lv	APN for establishing GPRS connection using SIM 1. Information is provided by your mobile operator.
SIM1: Operator Login	not specified	User name for authorisation, when establishing GPRS connection using SIM 1. Information is provided by your mobile operator.
SIM1: Operator Password	not specified	Password for authorisation, when establishing GPRS connection using SIM 1. Information is provided by your mobile operator.
SIM2: APN	Internet	APN for establishing GPRS connection using SIM 2. Information is provided by your mobile operator.
SIM2: Operator Login	not specified	User name for authorisation, when establishing GPRS connection using SIM 2. Information is provided by your mobile operator.
SIM2: Operator Password	not specified	Password for authorisation, when establishing GPRS connection using SIM 2. Information is provided by your mobile operator.
Module account	1234	Module account, used for it's identification. Must be unique for every module.
Online ID	11111111	Identification number, when working in GPRS mode. Must be unique for every module. It is highly recommended to set it the same as module SIM phone number.
Main: Server IP	0.0.0.0	Main server IP address
Main: TCP port	923	Main TCP port that will be used to connect to server.
Main: Domain name	not specified	Domain name
Main: DNS IP	not specified	DNS server IP address
Backup: Server IP	0.0.0.0	Backup server IP address
Backup: TCP port	923	Backup TCP port that will be used to connect to server.

Advanced Settings tab:

The screenshot shows the 'Advanced Settings' tab of a configuration window. The window has tabs for General Settings, Advanced Settings (selected), Security, Panel mode, Commands, and EVENTS. The settings are organized into several sections:

- General Settings:**
 - Firmware version: v.34-11
 - EEPROM ID: 34
 - Zones response time: 20 *25 ms (1..65535)
 - Size of Phone number: 8 (1..16)
 - Test time value: 144 *10min (1..255)
 - Bat low const: 74 (0..255)
 - Bat norm const: 84 (0..255)
- Advanced Settings:**
 - ☒ SIM2 check enable
 - OUT1 config:**
 - ☒ User controlled
 - ☐ GSM Trouble
 - ☐ GPRS Trouble
 - OUT2 config:**
 - ☒ User controlled
 - ☐ GSM Trouble
 - ☐ GPRS Trouble
 - ☒ Force Offline if bat low
 - ☐ Force Offline if AC fail
- Mail config:**
 - Query time in online: 15 s (15..255)
 - Attempts for activating GPRS: 2 (0..25)
 - Reconnect time for online: 3 min (1..255)
 - Main IP return time: 60 min (1..255)
 - SMTP address: com.lmt.lv
 - SMTP port: 25
 - User Name for authentication:
 - Password for authentication:
 - ☐ With authentication ☒ Email enable
 - Sender's name: GL module
 - Sender's mail: gl_module@cortex.lv
 - Mail of recipient: info@cortex.lv

At the bottom, there are buttons for Load, Save, OK, and Cancel.

In this tab You can configure output functions, additional module and GPRS parameters and E-Mail settings.

Parameter description is given in the table below.

Table 2. Additional module settings.

Parameter	Default value	Description
Firmware version	-	Firmware version. Information field.
EEPROM ID	-	Internal firmware version. Information field.
Zones response time	500 msec.	Input reaction time for status change.
Size of tlf number	8	Number of symbols that will be used to determine user number. 0 – full number.
Test time value	24 h	Time between periodical test messages.
Bat low const.	140 a.u.	Voltage value (in arbitrary units) that determines the low battery state. When lower - “Low battery” message is generated.
Bat norm const.	160 a.u.	Voltage value (in arbitrary units) that determines the normal battery state. When higher - “Battery restored”

Parameter	Default value	Description
		message is generated.
SIM2 check enable checkbox	Not active	When active, module will check SIM 2 status simultaneously with test message.
OUT1 Config	User controlled	First output function configuration. Three options available: User controlled – output is activated by a command from the user, GSM Trouble — output is activated when GSM network is lost, GPRS Trouble — output is activated when module failed to connect to the GPRS
OUT2 Config	User controlled	Second output function configuration. Three options available: User controlled – output is activated by a command from the user, GSM Trouble — output is activated when GSM network is lost, GPRS Trouble — output is activated when module failed to connect to the GPRS
Force offline if bat low	Active	When active, module stops working in GPRS mode if power supply voltage value is low.
Force offline if pwr fail	Not active	When active, module stops working in GPRS mode if power supply control input is active.
Query time in online	30 sec	GPRS connection with server test period.
Attempts for activating GPRS	2	Number of attempts to establish GPRS connection.
Reconnect time for online	3 min	Time interval between attempts to connect to the server.
Main IP return time	60 min	Time between attempts to return to main IP address
SMTP address	Not specified	SMTP server address.
SMTP port	Not specified	SMTP server port
User name for authentication	Not specified	Login for registration on SMTP server (if needed)
Password for authentication	Not specified	Password for registration on SMTP server (if needed)
With authentication checkbox	Not active	If active, module will be trying to register on SMTP server
Email Enable checkbox	Not active	If active, module will send information to the E-Mail
Sender's name	Not specified	Sender's name, that will be shown when E-Mail is received
Sender's mail	Not specified	Sender's E-mail address, that will be shown when E-Mail is received
Mail of recipient	Not specified	E-Mail address, where the messages will be sent

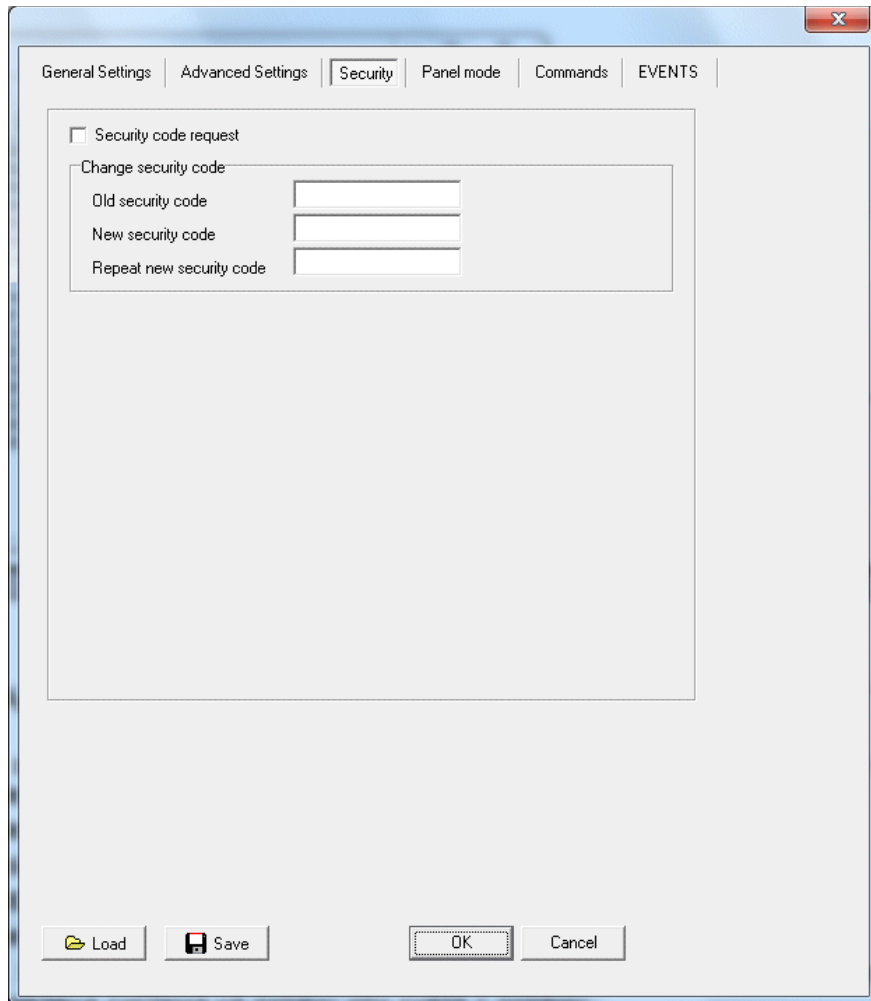
It is recommended to use the following SMTP servers with given parameters:

Mobile operator	SMTP server address	SMTP server port	Requires authentication
LMT; Amigo	com.lmt.lv	25	No
Tele2	smtpserver.swip.net	25	No
	mailgw.swip.net	25	No
Bite	smtp.banga.lt	25	No
	mail.bite.lv	25	No

If you are using different operator, or different SMTP server, those parameter settings may differ. Consult your mobile operator and internet provider.

Attention! Module supports only servers that doesn't use **TSL/SSL** encryption. If **TSL/SSL** encryption is used, message will not be sent.

Security tab:



In this tab You can activate security code request and change security code.

Security code request checkbox, when active, will activate security code request when trying to configure module parameters with the **USB_Reader** or **TLF_Server** software.

Change security code area is used to change security code:

Old security code – current security code (default - 1234)

New security code – new security code

Repeat new security code – repeat new security code

Panel mode tab:

General Settings | Advanced Settings | Security | **Panel mode** | Commands | EVENTS

Entry Delay: 4 * 5 s (0..255)
Entry Delay For Stay: 4 * 5 s (0..255)
Exit Delay: 6 * 5 s (0..255)
Bell Cut Off: 1 * 1 min (0..255)

Z1 Type: ☐ 24h ☒ Interior ☐ Instant
Z3 Type: ☒ 24h ☐ Interior ☐ Instant
Z4 Type: ☐ 24h ☐ Interior ☒ Instant
Z5 Type: ☐ 24h ☐ Interior ☒ Instant

☐ Z1 Stay Away ☐ Z3 Stay Away ☐ Z4 Stay Away ☐ Z5 Stay Away
☐ Key Switch
☒ Lines With Single EOL Resistors

Load Save OK Cancel

In this tab You can configure settings for the Security Panel mode:

Entry Delay – entry delay. Default - 20 seconds.

Entry Delay For Stay – entry delay for STAY ARM mode. Default - 20 seconds.

Exit Delay – exit delay. Default - 30 seconds.

Bell Cut Off – siren active time, when alarm was triggered. Default – 1 minute.

Z1 Type – type of the first zone. Three options available:

24h. Always activated and causes the alarm regardless of the system status (armed/disarmed).

Interior. After the delayed zone has been activated, interior zone works same as delayed. If delayed zone wasn't activated, it works as instant zone

Instant. Zone of this type has an exit delay, but will immediately activate the alarm when triggered after the exit delay is over.

Z1 Stay Away checkbox – zone 1 parameter that determines if zone will be ignored when system is armed in STAY ARM mode (Stay/Arm) or not (Normal). If zone type is 24h, than this parameter is ignored.

Z3 Type – type of the third zone. Options are identical to the first zone.

Z3 Stay Away checkbox – zone 3 parameter that determines if zone will be ignored when system is armed in STAY ARM mode (Stay/Arm) or not (Normal). If zone type is 24h, than this parameter is ignored.

Z4 Type – type of the fourth zone. Options are identical to the first zone.

Z4 Stay Away checkbox - zone 4 parameter that determines if zone will be ignored when system is armed in STAY ARM mode (Stay/Arm) or not (Normal). If zone type is 24h, than this parameter is ignored.

Z5 Type - type of the fifth zone. Options are identical to the first zone.

Z5 Stay Away checkbox – zone 5 parameter that determines if zone will be ignored when system is armed in STAY ARM mode (Stay/Arm) or not (Normal). If zone type is 24h, than this parameter is ignored.

Key Switch checkbox – determines whether arming will be made using electronic keys (deactivated), or key-switch (activated).

Lines With Single EOL Resistor checkbox – determines type of the security loops. With EOL resistor (activated) or NC (deactivated).

Commands tab:

General Settings Advanced Settings Security Panel mode Commands EVENTS						
Command	Code	U1	U2	U3	U4	Reply
Text/Code SMS Format	*	✓	✓	✓	✓	✓
Status Request	0	✓	✓	✓	✓	✓
OUT1 Activate	1	✓	✓	✓		✓
OUT1 Deactivate	2	✓	✓			✓
OUT1 Activate on xxx sec	1.xxx	✓	✓			✓
OUT2 Activate	3	✓	✓			✓
OUT2 Deactivate	4	✓	✓			✓
OUT2 Activate on xxx sec	3.xxx	✓	✓			✓
Set Current State As "Normal"	00.ssss	✓				✓
Arm in "Stay" mode	10.ssss	✓	✓			✓
Arm/Disarm module	11.ssss/12.ssss	✓				✓
1 Phone Number Request	81	✓				✓
2 Phone Number Request	82	✓	✓			✓
3 Phone Number Request	83	✓		✓		✓
4 Phone Number Request	84	✓			✓	✓
Erase Phone Number 2	92	✓	✓			✓
Erase Phone Number 3	93	✓		✓		✓
Erase Phone Number 4	94	✓			✓	✓
Set/Change Phone Num. 1	91.<PhNum>	✓				✓
Set/Change Phone Num. 2	92.<PhNum>	✓	✓			✓
Set/Change Phone Num. 3	93.<PhNum>	✓		✓		✓
Set/Change Phone Num. 4	94.<PhNum>	✓			✓	✓
Module's Config Change	99.<Par>	✓				✓
Module's Account Change	95.<old><new>	✓				✓
Force Module OnLine	87.ssss	✓				
Force Module OffLine	86.ssss	✓				

As You can see, on the left side are listed commands, that are supported by the module, and in the columns to the right, You can allow (✓) or restrict () the use of the command to the user (**U1 – U4**). Also You can allow or restrict confirmation reply about command execution (**Reply**). In the **Code** column are shown command texts.

Command description is given in the table below.

Table 3. Commands supported by module

Command	Description
Text/Code SMS format	Switch SMS message format User/Modem for the current user.
Status Request	Status Request
OUT1 Activate	OUT 1 Activate
OUT1 Deactivate	OUT 1 Deactivate
OUT1 Activate on xxx sec	OUT 1 Activate on xxx sec
OUT2 Activate	OUT 2 Activate
OUT2 Deactivate	OUT 2 Deactivate
OUT2 Activate on xxx sec	OUT 2 Activate on xxx sec
Set Current State As "Normal"	Set Current State As "Normal"
Arm in "Stay" mode	Remote arming in "Stay" mode (Security Panel mode)
Arm/Disarm module	Remote Arming/Disarming (Security Panel mode)
1 Phone Number Request	Request phone number of the first user (master)
2 Phone Number Request	Request phone number of the second user
3 Phone Number Request	Request phone number of the third user
4 Phone Number Request	Request phone number of the fourth user
Erase Phone Number 2	Delete second user phone number
Erase Phone Number 3	Delete third user phone number
Erase Phone Number 4	Delete fourth user phone number
Set/Change Phone Num. 1	Set or change phone number of the first user (master)
Set/Change Phone Num. 2	Set or change phone number of the second user
Set/Change Phone Num. 3	Set or change phone number of the third user
Set/Change Phone Num. 4	Set or change phone number of the fourth user
Module's Config Change	Configure module parameters using SMS messages
Module's Account Change	Change module account
Force Module OnLine	Activate Online mode
Force Module OffLine	Deactivate Online mode

EVENTS tab:

	U1	U2	U3	U4
IN 1 Alarm	✓	✓		
IN 1 Restore	✓	✓		
IN 2 Alarm	✓	✓		
IN 2 Restore	✓	✓		
IN 3 Alarm	✓	✓		
IN 3 Restore	✓	✓		
IN 4 Alarm	✓	✓		
IN 4 Restore	✓	✓		
IN 5 Alarm	✓	✓		
IN 5 Restore	✓	✓		
IN 6 (AC Fail) Alarm	✓	✓		
IN 6 (AC Fail) Restore	✓	✓		
Battery Low	✓			
Battery Restore	✓			
Ser. Port Communication Error	✓			
Ser. Port Communication Restore	✓			
Module Ready to Work	✓			
Test Message	✓			
Messages from Serial Port	✓	✓		
GPRS on SIM1 Error	✓			
GPRS on SIM2 Error	✓			
Connection to Server Error	✓			
Connection to Reserve Serv. Error	✓			
Module Forced OffLine	✓			
SIM1 Error	✓			
SIM1 Ok	✓			
SIM2 Error	✓			
SIM2 OK	✓			

As You can see, on the left side are listed events, that are generated by the module, and in the columns to the right, You can allow (✓) or restrict () the sending of the current event message to the user (U1 – U4).

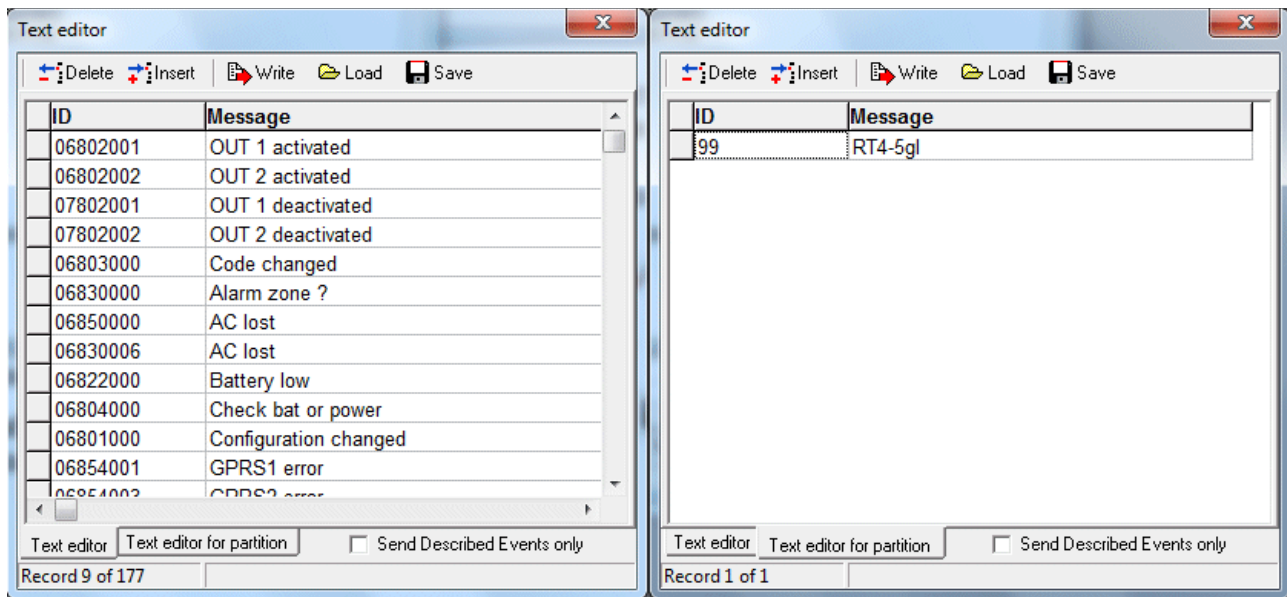
Event description is given in the table below.

Table 4. Module events

Event	Description
IN 1 Alarm	Zone 1 alarm
IN 1 Restore	Zone 1 restore
IN 2 Alarm	Zone 2 alarm
IN 2 Restore	Zone 2 alarm
IN 3 Alarm	Zone 3alarm
IN 3 Restore	Zone 3 restore
IN 4 Alarm	Zone 4 alarm
IN 4 Restore	Zone 4 alarm
IN 5 Alarm	Zone 5 alarm
IN 5 Restore	Zone 5 restore
IN 6 (AC Fail) Alarm	Zone 6 alarm

Event	Description
IN 6 (AC Fail) Restore	Zone 6 alarm
Battery Low	Power supply voltage is low
Battery Restore	Power supply voltage is restored
Ser. Port Communication Error	Communication port error
Ser. Port Communication Restore	Communication port restore
Module Ready to Work	Module is ready to work
Test Message	Periodic test message
Messages from Serial Port	Events received from security panel via communication port
GPRS on SIM1 Error	Failed to connect to GPRS using SIM 1
GPRS on SIM2 Error	Failed to connect to GPRS using SIM 2
Connection to Server Error	Failed to connect to main IP address
Connection to Reserve Serv. Error	Failed to connect to backup IP address
Module Forced OffLine	Forced exit from GPRS
SIM 1 Error	SIM 1 not working
SIM 1 Ok	SIM 1 restored
SIM 2 Error	SIM 2 not working
SIM 2 Ok	SIM 2 restored
Code Registration Mode Entry	Key registration mode entry (Security Panel mode only)
Code Registration Mode Exit	Key registration mode exit (Security Panel mode only)
Guard/Service Registration	Guard/service key was pressed to the reader (Security Panel mode only)
System Arming	Armed (Security Panel mode only)
System Disarming	Disarmed (Security Panel mode only)
Unregistered Code/Key	Unregistered key (Security Panel mode only)

USB_Reader software: text table editor



Text table editor window

Text table editor window consists of two tabs and can be opened by pressing  icon. In **Text Editor** tab You can edit message texts and in **Text editor for partition** – partition names, that will be added to the messages.

Text Editor tab contains two columns: in ID column You have to enter event code and in the Message column – this event description.

Text Editor for partition tab contains two columns: in ID column You have to enter partition number and in the Message column – it's name.

To add another row, press  icon.

To delete existing row, select one of the cells in this row and press .

Send Described Events Only determines, whether in text format module will transmit all messages (not active) or only described ones (active).

If You want module to automatically insert zone and user numbers into the messages, than You have to set last three digits of the event code as zeros and in the description text add question marks. Number of question marks will determine the number of symbols inserted.

Example:

Programmed event code: **06130000**

Programmed event description: **Alarm! Zone ??**

Event code, received from the panel: **06130002**

Text received by the user: **Alarm! Zone 02**

To upload table into the module, press  button.

To load existing table from file, press  and choose desired **.hex** file.

To save the table into the file, press  icon and specify path and file name.

USB_Reader software: configuration template creation

Software allows creating configuration file without directly connecting the module to the PC.

To do so, press  icon and choose **GL** option, or **Text Editor** option if you need to create text table template.

After that, software will open window that is identical to the window that is described in the “**USB_Reader software: module programming**” paragraph. The only difference is that all the parameters will have zero value.

After configuring all parameters as You need, save module configuration into the file by pressing **Save** and specifying file name and path.

To load previously saved configuration file, press **Load** and select the file to load parameters from.

USB_Reader software: module firmware update

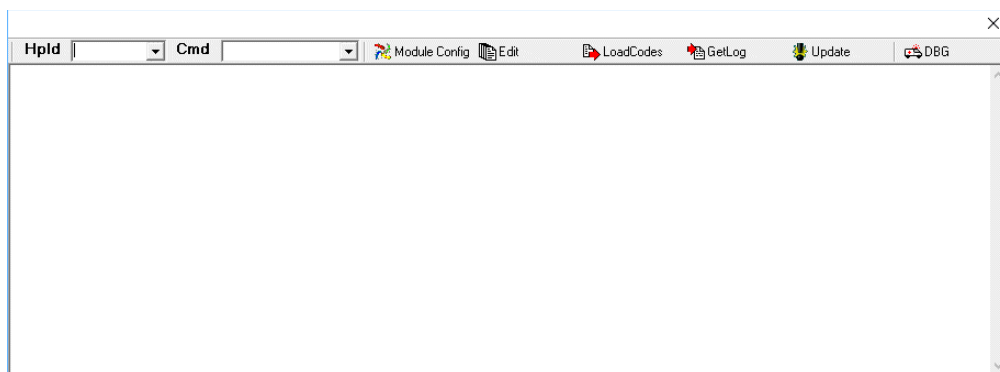
To update module firmware version You have to press  **Update** icon. In the opened window specify the path to the **.hex** file that was provided by the developer and press **Open**.

Module programming using GPRS

To program module via GPRS, You will need **TLF_Server** software version **1.14.3** or higher.

TLF_Server software: module configuration

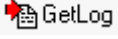
To start module programming, in the main program window You must press  **Cmd** icon. Device control window will open:



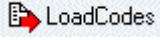
In this window, press  **Module Config** icon, and in RPT_ID drop-down menu select Online ID of the module You wish to configure and press OK. After that a configuration window will open, that is fully identical to the window described in the “**USB_Reader software: module programming**” paragraph.

After all the changes is made press Ok. New configuration will be uploaded into the module and it will reload with the new parameters.

TLF_Server software: Event log download.

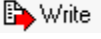
Log contains up to 254 events. To download log, press  **GetLog** icon. Then specify the path to the Using the software, You can download device event log for further processing. folder, where you want to save you .log file, choose folder, where you want to save you .log file, choose a name for it and press **Save**.

TLF_Server software: event table upload.

In case You need to update the code tables for security panels information decoding, You have to use  **LoadCodes** icon. After You pressed it, specify the path to the .hex file that was provided by the developer and press **Open**.

TLF_Server software: text table editor.

Text editor is opened by pressing  icon. After that a configuration window will open, that is fully identical to the window described in the “**USB_Reader software: text table editor**” paragraph.

After all the changes is made press  **Write** icon. New configuration will be uploaded into the module and it will reload with the new parameters.

TLF_Server software: module firmware update.

To update module firmware version You have to press  **Update** icon. In the opened window specify the path to the .hex file that was provided by the developer and press **Open**.

Programming module using SMS

Module allows changing part of it's parameters via SMS. By default this function is allowed only to the first user. List of general programmable parameters is shown in the **Table 5**.

For the full list of commands see Installation manual.

Table 5. Parameters, programmed via SMS

Command	Description	Example	Default value
91.xx...xx	Set or change first user phone number	91.21234567	-
92.xx...xx	Set or change second user phone number	92.21234567	-
93.xx...xx	Set or change third user phone number	93.21234567	-
94.xx...xx	Set or change fourth user phone number	94.21234567	-
99.Txxx	Time period between test messages xxx – *10 minutes. Maximum - 255	99.T24 (from 1 to 255)	144
99.I<IP>	Change main server IP address	99.I211.21.211.2	0.0.0.0
99.II<IP>	Change backup server IP address	99.II211.21.211.2	0.0.0.0
99.A <access point>	Change APN for SIM 1	99.Ainternet.lmt.lv	internet.lmt.lv
99.AA <access point>	Change APN for SIM 2	99.AAinternet.lmt.lv	internet
99.DI<IP>	Change DNS server IP address	99.DI211.21.211.1	
99.DI	Change module to the “connecting to IP address” mode	99.DI	
99.DD<domain name>	Change domain name	99DDalarm.cortex.lv	

Command	Description	Example	Default value
99.P<port>	Change main server port	99.P925	923
99.PP<port>	Change backup server port	99.PP925	924
99.R<min>	Time between attempts to return to the main IP address. Maximum - 255	99.R255	60
99.O<sec>	Time between GPRS connection tests. Minimum -15, maximum - 255	99.O15	30
99.M<min>	Time between reconnection attempts. Maximum - 255	99.M5	3
99.Y1<login>	Change login for authentication at operator with SIM 1 Maximum – 8 symbols	99.Ylogin	-
99.YY1<login>	Change login for authentication at operator with SIM 2 Maximum – 8 symbols	99.YYlogin	-
99.Y2<password>	Change password for authentication at operator with SIM 1 Maximum – 8 symbols	99.Ypassword	-
99.YY2<password>	Change password for authentication at operator with SIM 2 Maximum – 8 symbols	99.YYpassword	-
99.Nx	Set number of symbols for phone number identification Maximum - 16	99.N8	8
99.C1	Show module general settings	99.C1	-
99.C2	Show module additional settings	99.C2	-
99.C3	Show mobile operator and GSM signal strength	99.C3	-
99.C4	Show current module settings	99.C4	-
99.C5	Show E-Mail settings	99.C5	-
95.xxxxyyyy	Change module account xxxx – security code, yyyy – new account	95.12345678	1234
96.xxxxyyyy	Change module security code xxxx – old security code, yyyy – new security code	96.12345678	1234
99.CddMMyyhhmmss	Date and time configuration (dd – day, MM – month, yy – year, hh – hours, mm – minutes, ss - seconds)	99.C140410132142	-
99.Wxxxx	Change module Online-identificator. xxxx – identificator (maximum 15 digits)	99.W4876	11111111