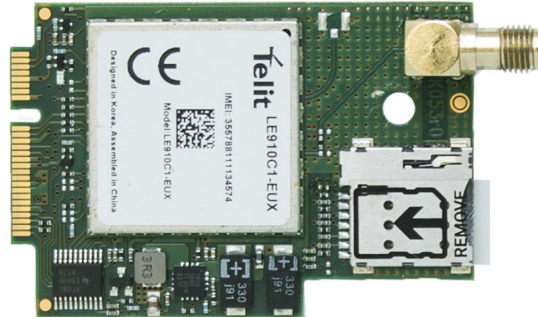


# 4G/LTE add-on

Communication module

## Installation guide



KSI4104001.300

### INTRODUCTION

4G/LTE add-on module supports 4G/LTE connectivity, fourth generation network for data transmission on a high-speed mobile network. 4G/LTE technology improves performances and communications to obtain a best reliability and speed of the links.

4G/LTE add-on module is an easy installation module, directly plugged into the lares 4.0 control panel motherboard. Using 4G/LTE (Long Term Evolution) data network, with band B1, B3, B7, B8 and B20 (2100, 1800, 2600, 900, 800 MHz respectively) it extends the communication capabilities of lares 4.0 control panel. It also provides a high-speed data channel able to do a complete back-up of communication network in case of failure or temporary lack of coverage, from 4G network to the IP network and vice versa, ensuring total security of data and communications, or even be the only data channel available of the control panel.

### TECHNICAL DATA

- Power supply: 3.3 Vdc
- Current consumption: 50 mA stand-by, 2.2 A max
- Frequency 4G LTE: 800, 900, 1800, 2100, 2600 MHz
- GSM band: B1, B3, B7, B8, B20
- VoLTE technology
- Maximum transmission time of vocal alarm: 10 sec.
- Alarm transmission system: SP2 - SP4 - DP3
- External antenna connector type: SMA
- Operating temperature: +5° +40°C
- Compatible SIM type: micro
- PCBA dimensions: 36x62x14 mm

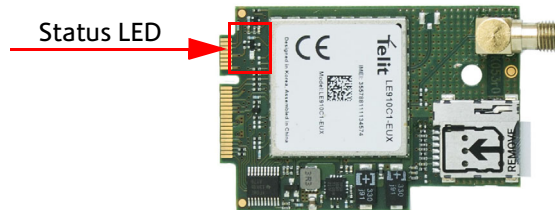
#### *Optional accessories:*

- KSI4800006.300 - Antenna 4G with 30cm cable
- KSI4800008.300 - Antenna 4G with 5m cable
- KSI4800005.300 - Antenna 4G with 10m cable

## STATUS LED

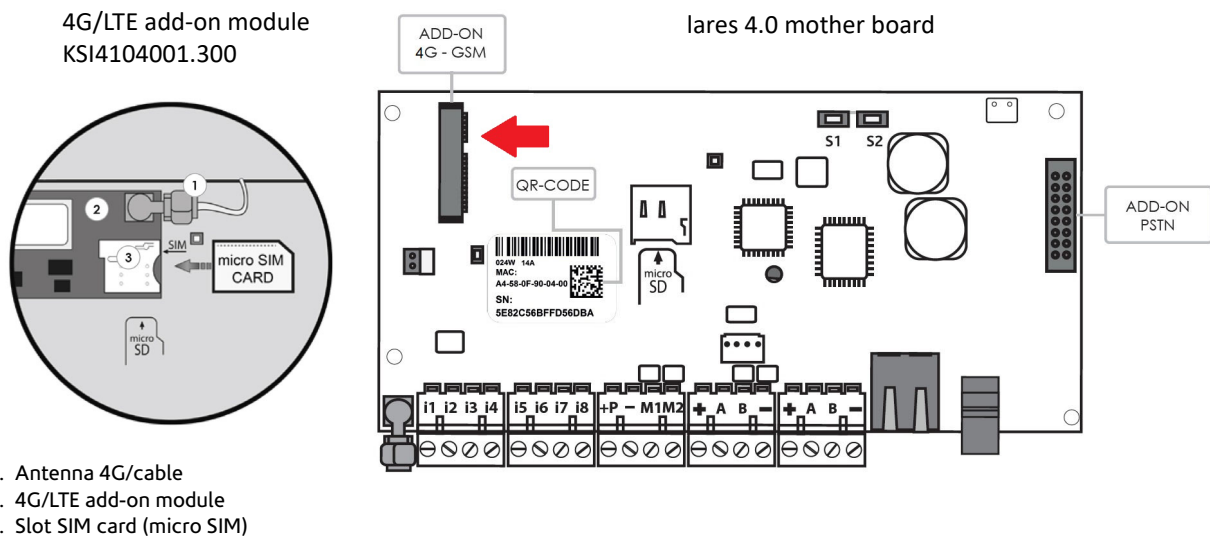
One green led on the front of the module and it takes the followings meanings:

- Led blinking: functioning/registered 4G with or without data;
- Led steady on: not registered on mobile network/ no service/ no network coverage;
- Led off: initialization/ reboot.



## INSTALLATION

4G/LTE add-on module is an easy installation module, directly plugged into the lares 4.0 control panel motherboard, regardless of the lares 4.0 model, using the connector shown in the following image.



- NOTE1: please pay attention to the correct insertion direction of the SIM card as illustrated.  
IMPORTANT: before inserting the micro SIM inside the GSM module, be sure to DE-ACTIVATE the PIN code request by using a mobile phone.
- NOTE2: micro SIM not included in the package.

Install 4G/LTE module to enrich lares 4.0 with the following features:

- remote configuration of the control panel through free Ksenia PRO App for installer or from Ksenia SecureWeb cloud;
- remote management of the control panel through free lares 4.0 APP for users;
- sending of messages using the SIA DC09 digital protocol, with channel and receiver supervision;
- notifications via SMS, e-mail, voice messages, Push notifications.

## CONFIGURATION


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Open Installer web interface of lares 4.0 control panel to customize the 4G/LTE add-on module, as described in the lares 4.0 configuration manual; open <Settings -> GSM/PSTN Communicator> page to configure GSM data mobile.

The GSM signal strength is displayed on the home page of Installer web interface of the lares 4.0 control panel, in the following way:

 **vodafone IT**    GSM signal strength and provider

 **vodafone IT**    GSM signal strength and provider

    Absence of GSM signal or SIM not present

From installer interface, it is possible to check if the add-on (GSM) is correctly plugged thanks to two new events in the log: "**add-on plugged**" when the module is correctly plugged into the special connector and is working, "**add-on unplugged**" when the mother board cannot detect the module.

When the module is correctly installed, SIM card faults are shown in the space reserved to the connection status icon:

 = wrong installation or not valid SIM

 = SIM with PIN enabled, cancel the PIN code

 = SIM blocked due to a generic error

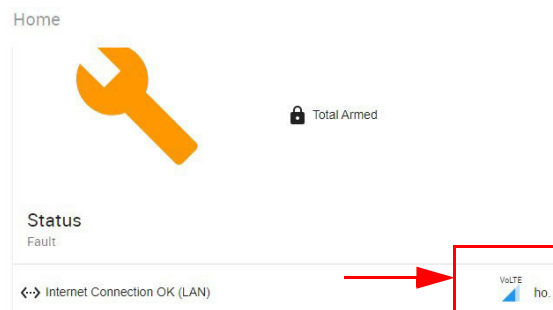
## VoLTE technology: description and configuration

Voice Over LTE is a technology that uses 4G/LTE network to route voice calls and data traffic, it guarantees a better audio quality and a faster connection but, above all, it keeps the control panel connected to 4G data network during the phone calls. VoLTE technology makes possible the connection of lares 4.0 app to the control panel, during alarm calls.

In order to use this service, the following conditions must be satisfied:

- VoLTE function is supported by the 4G/LTE Add-on module code KSI4104001.300 equipped with the "TELIT" GSM chip;
- the control panel must be located where the operator of the SIM card used offers reliable LTE service coverage;
- SIM card must be configured to carry voice traffic (even if the call uses the data connection, the operator will consider the minutes of voice conversation) and 4G data traffic;
- configure the correct APN required to have an Internet connection, according to the operator used.

VoLTE can be enabled from Settings -> GSM / PSTN communicator page, GSM section -> "VoLTE" field. If the 4G/LTE add-on module installed on board of lares 4.0 card supports this technology and VoLTE is enabled and available on the connected network, the information will appear in the real time section of the system, as shown in the following image:



When the control panel connects to the network but VoLTE service is not available, 4G connection will still work correctly but the voice calls will fall back to 2G.

If the data connection is disabled, the VoLTE option will be automatically disabled as well.

## CERTIFICATIONS

Europe - CE, Rohs

EN 50136 - Grade 3, SP2 - SP4 - DP3, Class II

T031: 2017 + A1:2018 + A2:2022



D-Q2T-0029



Technical data, appearance, functionality and other product characteristics may change without notice.