

# CM-4G-GPS Quick Guide

CM-4G-GPS plug-in module is a GSM/WCDMA/LTE cellular modem in combination with a GPS receiver. The cellular modem can work in two modes of operation based on the settings in the setpoint Mode.



Image 1.1 CM-4G-GPS module

**IMPORTANT:** Any manipulation with plug-in module shall be done with disconnected power supply to controller.

**IMPORTANT:** CM-4G-GPS and CM-GPRS modules cant be used in one controller in the same time.

**IMPORTANT:** Module functionality depends on used controller. Before usage of module please check controller manual to see which functions are supported.

CM-4G-GPS module also works like GPS locator. Geo-fencing function can be used with this module.

## Short guide how to start using CM-GPRS module

- ▶ You will need a controller, CM-4G-GPS module, antenna and SIM card with SMS and packet data service.

**Note:** Make sure that your SIM supports the packet data network type you want to use. - i.e. if you want to use the module in LTE (4G) network you have to confirm with the operator that the particular SIM card supports 4G network.

- ▶ Contact your mobile operator for getting packet data APN (APN = Access Point Name), username and password.

**Example:** APN Name = "internet", UserName = [blank], Password = [blank].

- ▶ Make sure SIM card does not require PIN code. Use any mobile phone to switch the SIM PIN security off.
- ▶ Place the SIM card into slot on CM-4G-GPS card
- ▶ Connect the antenna to Cellular module antenna connector.
- ▶ If you want to use the built-in GPS receiver connect also an **active** GPS antenna to the GPS antenna connector.
- ▶ Switch off the controller.
- ▶ Insert CM-4G-GPS module into controller
- ▶ Power up the controller.
- ▶ Select the mode of CM-4G-GPS module by adjusting setpoint Mode.

- ▶ Enter correct APN Name, APN User Name and APN User Password in controller's setpoint group CM-4G-GPS which is accessible by PAGE button from any measurement screen on controller. Setpoints can be set on controller's front panel keyboard or by LiteEdit.
- ▶ Switch the controller off and on.
- ▶ Wait for approx 2 - 4 minutes for first connection of the system to AirGate. AirGate will generate automatically the AirGate ID value. Then navigate to measurement screens where you will find signal strength bar and AirGate ID identifier.

### GSM Diag Code – Common list of diagnostic codes for cellular modules

Code	Description
0	OK. No error.
1	Not possible to hang up.
2	Modul is switched off
3	Module is switched on
4	Module – error in initialization
5	Module – not possible to set the APN
6	Module – not possible to connect to GPRS network
7	Module – not possible to retrieve IP address
8	Module – not accepted DNS IP address
9	Error in modem detection
10	Error in initialization of analog modem
11	SIM card is locked (Possibly PIN code required, PIN needs to be deactivated) or unknown status of SIM locking
12	No GSM signal
13	Not possible to read the SIM card parameters
14	GSM modem did not accepted particular initialization command, possibly caused by locked SIM card
15	Unknown modem
16	Bad answer to complement initialization string
17	Not possible to read GSM signal strength
18	CDMA modem not detected
19	No CDMA network
20	Unsuccessful registration to CDMA network
21	SIMCom/ME909s: can't read FW version
22	SIMCom: GSM signal not found
23	SIMCom: can't detect module speed
24	SIMCom: HW reset issued
25	PUK is required
26	Error of SIM card detected
27	ME909s: can't set module bps
28	ME909s: can't set link configuration

29	ME909s: can't do power-off
30	ME909s: can't do power-on
31	ME909s: can't do hardware reset
32	ME909s: ME909s not started
33	ME909s: switch off issued
34	ME909s: switch on issued
35	ME909s: HW reset issued
36	ME909s: can't switch echo off
37	ME909s: can't find out state of registration
38	ME909s: GSM signal not found
39	ME909s: no SIM memory for SMS
40	ME909s: waiting for registration
41	Can't read operator name
42	ME909s: can't set flow control
43	APN not typed
255	Only running communication is needed to indicate

### AirGate Diag – Diagnostic Code for AirGate connection

Code	Description
0	Waiting for connection to AirGate Server
1	Controller registered, waiting for authorization
2	Not possible to register, controller blacklisted
3	Not possible to register, server has no more capacity
4	Not possible to register, other reason
5	Controller registered and authorized

## Firmware upgrade

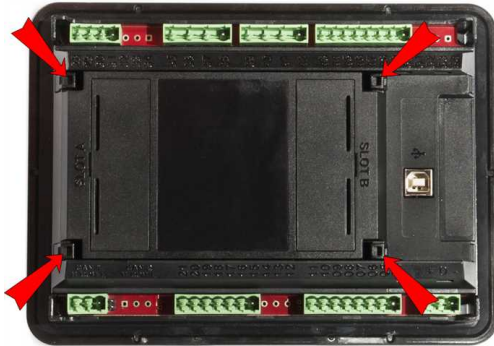
- ▶ Download the newest FW of module from ComAp website (in form of PSI file or installation package)
- ▶ Instal package to computer or open PSI to instal it into LiteEdit
- ▶ Plug the module into the controller and power the controller on.
- ▶ Open a connection with controller via LiteEdit
- ▶ Go the menu Tools -> Firmware upgrade, select the Plug-in modules tab and select the appropriate firmware you want to program into the module (in LiteEdit).
- ▶ Press the OK button to start upgrade of firmware.

The firmware update process may be performed via any kind of connection including connection via the same module in which the firmware is to be updated. The connection is reestablished again automatically when the update process is finished.

**Note:** For more information see *InteliLiteGlobal Guide* on [www.comap.cz](http://www.comap.cz).

# Plug-in module installation

Remove the back cover. To do this, press four holders which are located in corners.



After removing back cover insert the plug-in module. Plug-in module has to be inserted under holders. Start with holders market by symbol 1. On the controller are also narrows for better navigation. After inserting plug-in module under holders 1 press it down to holders market by symbol 2 which lock the module.

Insert the plug-in module under holders marked by symbol 1. Then insert the plug-in module under holders marked by symbol 2.



After locking the plug-in module into holders, place back the back cover (small cover for connectors has to be removed from back cover). Finally insert the small cover for connectors. Small covers are unique for each plug-in module.

