

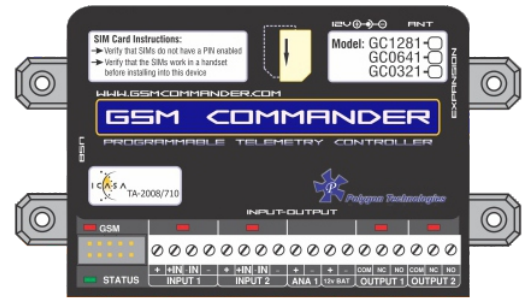


## GPS Expansion Quick Start Guide

- Dimensions GPS Interface board: 21 x 50 mm
- Dimensions GPS mouse: 60 x 60 x 19 mm
- Weight: 80 g
- Power supply GPS: 5Vdc ~ 75 mA
- Power consumption: ~ 370mW
- Operating temperature: -30 to +70 deg.C
- Frequency: 1575.42 MHz
- Accuracy Horizontal: autonomous < 13.5 M
- Altitude: 18 000 M max
- Velocity: 515 M/S (1000 knots) max
- Time to first fix: cold start ~ 42 seconds
- Must be mounted upright
- Must NOT be enclosed in a metal structure
- Has a magnetic base for easy mounting
- Is waterproof with a IPX6 rating

## Installation:

Plug the GPS Interface board into the serial port of the GSM Commander and then plug the GPS mouse into the GPS Interface board via the RJ12 jack as indicated in the picture on the right.



## Operation:

When the GPS mouse starts up the blue LED on the mouse will be steady on and the green LED on the GPS Interface will be off.

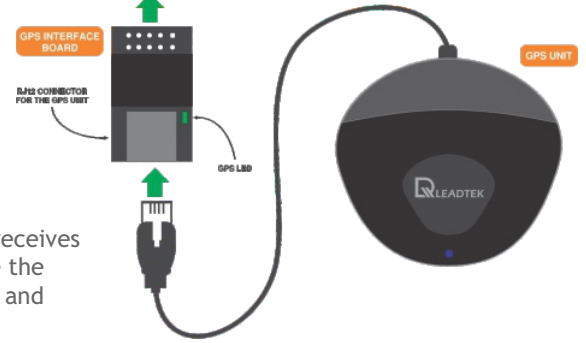
When the GPS Interface receives data from the GPS mouse the green LED will illuminate and remain steady on.

After locking onto satellites from a coldstart (~ 42 sec) the blue LED of the GPS mouse will flash once every second, when the GPS Interface receives valid data, its green LED will then also flash once every second.

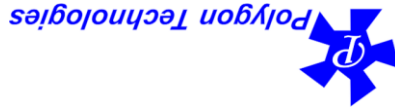
The GPS Interface will then encrypt the data sent from the GPS mouse and then pass it on to the GSM Commander to populate variables A-H. (See reverse of page for more information)

The user could then view the variables via the SmartSetup PC software or via the internet if the GSM Commander is connected to Airdrive via GPRS.

**Note! ONLY compatible with models GC0641, GC1280 and GC1281. Also ensure that the GSM Commander firmware version is V7.41B or up.**



For any technical assistance please email support@gsmcommander.com or contact Polygon Technologies CC on +27 (0)21 981 7062



2) \*HOMESET\* <Latitude> \* <Longitude> #  
e.g. Latitude = 40.7127837 and Longitude = -74.0059413 then command will be \*HOMESET\*40.7127837\*-74.0059413#)

1) \*HOME# (sets the HOME position to the current location)

The GPS Interface allows the user to set the home position by sending it the following serial commands (baudrate = 38400):

## How to set the HOME position:

Please Note: A positive LATITUDE value indicates NORTH, whereas a negative value indicates SOUTH. A positive LONGITUDE value indicates EAST, whereas a negative value indicates WEST.

- VAR H: Indicates how many SATELLITES it currently has a fix on, else it is set to zero if it has no fix.
- VAR G: Distance between CURRENT position and HOME position in m/10 (i.e. 160,587 km will be populated as 16058)
- VAR F: Longitude of stored HOME position in degrees x 10000 (i.e. -74.0059413 will be populated as -740059)
- VAR E: Latitude of stored HOME position in degrees x 10000 (i.e. 40.7127837 will be populated as 407127)
- VAR D: Current ALTITUDE in m (metres)
- VAR C: Current SPEED in km/h x 10 (i.e. 127,486 km/h will be populated as 1274)
- VAR B: Longitude of CURRENT position in degrees x 10000 (i.e. -74.0059413 will be populated as -740059)
- VAR A: Latitude of CURRENT position in degrees x 10000 (i.e. 40.7127837 will be populated as 407127)

The data from the GPS module is transferred via the GPS Interface to the GSM Commander and updated once every second. It is then stored inside variables A-H. Each variable will store the following parameters:

## Population of GPS Data: