



Telemisis
Next Generation Telemetry Solutions

GTT3

GTT3 Terminal Specification

Version 1.2

Technical Specification

Key Components

- Quad-band 850/900/1800/1900 MHz GPRS module
- ARM processor for interface management
- Integral GPS receiver
- Internal 2Ah Li-Poly battery providing up to eight hours of backup power
- Standard mini SIM-card slot

GSM/GPRS Capabilities

- Incoming and outgoing SMS
- GPRS data downlink, class 12, transfer rate max. 85.6 kbps
- GPRS data uplink, class 10, transfer rate max. 21.4 kbps

Electrical Interfaces

- 8–30VDC power input
- 100-300mA average current consumption
- GSM SIM card (1.8V or 3V)
- Control buttons for stop (hibernate) and start
- Status indicator LEDs

Antenna Interfaces

- GSM antenna SMA type female, 50 ohms (850-1900 MHz antenna)
- GPS antenna SMA type female, active type (-16 to -18dB desired loss)

I/O Interfaces¹

- Up to 3 RS-232 serial – 10 metre maximum cable length (Out ± 5 VDC, In maximum ± 25 VDC) **OR**
- Up to 2 RS-485 serial – 100 metre maximum cable length (-7VDC to +12VDC)
- 4 x Digital buffered inputs (0 - 24VDC, 500ms switching)
- 4 x Digital buffered outputs (0 - 3.3VDC, max 20 mA)
- 4 x Analogue inputs, 12bit A/D (0 - 15VDC)

Behavioural

- High temperature alert
- Mutual Watchdog functionality between ARM7 and GSM modem
- Minimum 6 hours, maximum 10 hours operation without external power
- Fast charging time 3 hours

Debug Interfaces

- JTAG for ARM7 programming
- USB for GSM modem

¹ RS232 and RS485 port requirements must be specified on order. Standard model supports 2xRS232 and 1xRS485

Environmental & Behavioural

- 0°C to 45°C full operation including battery charging
- -20°C-0°C and 45°C-75°C full operation without battery charging²
- Operating humidity max 90%
- Efficient power supply with low heat output

Dimensions (Approx)

- Weight 300g
- Size 102mm x 99mm x 30mm

GTT3 with I/O Expansion Board (GTT3-MDB)

GTT3 units can be factory ordered with this option but cannot be retro-fitted. Additional capabilities are:

- 24 x Digital buffered inputs (0 - 24VDC, 500ms switching)
- 8 x Digital open collector outputs (max 500 mA)

GTT3 with Dual-SIM Option (GTT3-DSIM)

GTT3 units can be factory ordered with support for two SIM cards. One SIM is installed behind the front plate for security. Switching between SIM cards is controlled by the GTT firmware depending upon configuration e.g. failure of primary network results in switching to secondary network.

Slave Unit

GTT slave units connect with a GTT master unit (either GTT3 or GTT3-MDB) using the RS485 interfaces of both master and slave units. Therefore the RS485 interfaces of both the master and slave units cannot be used for other purposes. The physical interfaces offered by the slave unit are otherwise identical to GTT master units.

Slave units may be ordered with or without I/O expansion board.

A maximum of one slave unit may be connected to each master unit.

Approvals – Light & Heavy Industrial

- EN55022
- EN61000-4-3
- EN61000-4-2
- FCC

Installation & Cabling

- Supplied with a 12mm self-adhesive heat resistant mounting pad or mounting wings
- Over-the-air upgrade facility, optionally fully automated
- Auto registration

² Note that at low ambient temperatures the temperature of the hardware is likely to be 15-20°C above ambient temperature and thus full operation with battery charging is likely even at low temperatures.

Optional Ancillaries

- Wiring tails and connector blocks
- RS232 and RS485 interface cables
- Mounting brackets for screw/rivet fit
- Power, interface and debug cable assemblies
- CDMA 1xRTT/1xEVDO wireless module
- Iridium satellite module
- Ethernet LAN module
- Range of GSM, CDMA and satellite antennas
- Range of GPS antennas
- Temperature probe
- -50VDC power supply monitor
- Mains/grid supply monitor
- Intelligent generator controllers
- Full range of compatible sensors including security, environmental, fuel level and electrical



Figure 1 : Front View

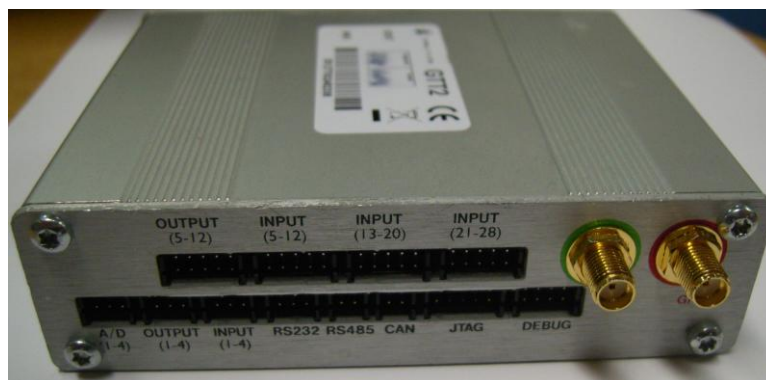


Figure 2 : Rear Panel with Options Board Fitted

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