



4G/LTE/GSM MODEM with GPS

Features:

- RS232+USB interface
- Based on Simcom SIM7600E-H
- TDD-LTE B38/B39/B40/B41
- FDD-LTE B1/B3/B8
- TD-SCDMA B34/B39
- UMTS/HSDPA/HSPA+ B1/B8
- CDMA 1X/EVDO BCO
- GSM/GPRS/EDGE 900/1800MHz
- LED Indicates power and GSM signal
- SMA Antenna Connector for GSM & GPS
- Rugged Aluminium Enclosure
- 1.8-3V SIM card slot
- Supply voltage 6-36Vdc
- Output Power:
Class4: 2W @ 850/ 900MHz GSM
Class1: 1W @ 1800/1900MHz GSM
Class3: 0.25W @ 850/1900/2100MHz UMTS
- **GPS** Sensitivity -159dBm
- **GLONASS** Sensitivity -158dBm
- Accuracy 2.5m (open sky)
- Receiver 16 Channel C/A code
- Update rate: Default 1 Hz
- GNSS data format: NMEA-0183



Kit Includes:

- GSM Modem
- Mounting Bracket
- GSM Antenna
- GPS Antenna
- Power Supply
- RS232 Cable
- USB Cable
- CD

Part Number	Description
GSM-4GLTEGPS	Modem Kit
SIMCARD	Please see website for various PAYG / Contract

Key Features:

Features	Implementation
Transmission	Data, SMS, Fax
Power supply	Single supply voltage 6V—36Vdc
Current Consumption	Standby ~55mA Working Current 100-140mA
GSM class	Small MS. (GSM07.07 and 07.05)
GPRS	Class 8
Frequency bands	900, 1800
Transmit power	Class 4 (2W) for 900MHz Class 1 (1W) for 1900MHz
Supported SIM card	3V
External antenna	Connected via antenna SMA connector
Max Transmitting Speed	115KB/s
FAX	Group 3: Class 1, Class 2
Serial interface	<ul style="list-style-type: none"> • RS-232 interface, for AT commands and data • Baud rates from 300bps to 115,200bps
Reset of Terminal	Reset via AT command
Environmental Temperature:	<ul style="list-style-type: none"> • Working operation: -20°C to +55°C • Humidity: max. 80% relative humidity
Size	76mmx54mmx25mm (Casing Dimension)
Weight	100g (Approx.)

What's in the box?

- GSM Modem unit
- GPS Antenna
- 4G Antenna
- RS232 Cable
- Power Supply



Interface Description:

The GSM Terminal provides the following connectors for power supply, interfacing and antenna:

- 2.1mm DC power connector (centre/inner pin is positive)
- 9-(female) D-SUB plug for RS-232 serial interface
- SMA connector for antenna (radio interface)
- SIM card holder



Power Supply:

The power supply of the GSM terminal should be a single voltage source of $V_{in}=6-32V$ providing peak current of up to 500mA during transmission.

The terminal can be turned on by connecting power. The terminal power supply circuit automatically generates a low pulse signal not less than 100ms in order to wake up the GSM engine.

Each time the terminal is shut down, data will be written from the volatile memory to the flash memory. The guaranteed maximum number of write cycles is limited to 100,000.

RS232 Interface

Via RS-232 interface, the host controller controls the TMS GSM/GPRS terminal and transports data. The table below shows the pin assignment of RS-232 (D-SUB 9-pin female).

Pin no.	Signal name	I/O	Function
1	/DCD	O	Data Carrier Detected
2	/RXD	O	Receive Data
3	/TXD	I	Transmit Data
4	/DTR	I	Data Terminal Ready
5	GND	-	Ground
6	/DSR	O	Data Set Ready
7	/RTS	I	Request To Send
8	/CTS	O	Clear To Send
9	/RI	O	Ring Indication

The GSM/GPRS terminal is designed for use as DCE. Based on the conventions for DCE-DTE connection, it communicates with the user application (DTE) using the following signals:

Pin TxD @ application sends data to TxD of GSM/GPRS terminal

Pin RxD @ application receives data from RxD of GSM/GPRS terminal

Status LED

The LED displays the operating status of the terminal. The table below summarises the coding of the red LED status.

Operating status	LED
Power Down	Off
Standby (Registered to the net)	On
Talk mode, GPRS data	Blinking

Basic AT Command List:

The commands are listed in the document SIM7500_SIM7600 Series_AT Command Manual

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