

# JANUS REMOTE COMMUNICATIONS

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## Terminus GSM Series GSM864Q Terminal Modem

### Description

The Terminus Series is a GSM/GPRS control terminal with a compact enclosure that encapsulates everything needed for wireless M2M capability. Quad-band design allows for applications to be deployed worldwide.

The Terminus Series breaks through the barriers of M2M connectivity by minimizing investment and reducing total system costs. The Terminus contains all circuitry required to operate on the GSM network including SIM card connections and switching power supply. External antenna connection enables the system integrator to meet application specific antenna mounting requirements. The GSM864Q allows for stand-alone use via industry standard interconnects or system integration via standard 50-pin 0.1" x 0.1" dual row header, further reducing the need for additional hardware costs. The GSM864Q's ability to configure 9 GPIO as CMOS input or output makes the Terminus both innovative and cost effective. The ease of application development and optional GPS integration also opens the door for further system cost reduction.

Adaptable and easy to use, the GSM864Q is ideal for use in M2M Telemetry and Telematic applications including fleet and asset management, vending, security, alarm monitoring, e-maintenance and other telemetry applications.

Both the GPS and Non-GPS versions of the Terminus are available as an open frame module (V5.10 and V6.10 respectively). Please refer to Section 8 of the GSM864Q User Manual for open frame design considerations.



### Applications

- Fleet management
- Teleservice
- Security systems
- Telematics
- Telemetry and telecontrol
- Remote monitoring systems
- Remote meter reading
- Vending machines
- POS Terminals

### Terminus Models & Ordering

Ordering	Description
GSM864Q v1.1	GPS Terminal
GSM864Q v2.1	Non-GPS Terminal
GSM864Q v3.1	GPS Terminal HV
GSM864Q v4.1	Non-GPS Terminal HV
GSM864Q v5.1	GPS Terminal Open Frame
GSM864Q v6.1	Non-GPS Terminal Open Frame

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Bulletin **JA02-PB**  
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Making machines talk.

## Features

### Cellular Bands

- 900/1800 MHz
- 850/1900 MHz

### Environmental

- Operating Temperature: -30°C to +65°C
- Storage Temperature: -40°C to +85°C

### Physical Interfaces

- Connectors
  - RS-232 9-pin Sub D
  - 4P4C Handset Jack
  - 50 Pin 0.1" Dual in-line header General Purpose Interface
  - DC Power 2.1mm barrel jack
  - GSM Antenna Jack (SMA)
  - GPS Antenna Jack (MCX)
- SIM Card
  - 1.8V/3.0V
  - Externally accessible

### Enclosure (V1.1, V2.1, V3.1, and V4.1)

- Rugged ABS Plastic
- Size: 2.6" x 3.75" x 1.2" (66mm x 95.25mm x 30.84mm)
- Thru-case mountable with 2-#6 screws
- PC Board mountable

### Board Footprint (V5.1 & V6.1)

- Size: 2.53" x 3.33" x 0.625" (64.26mm x 84.58mm x 15.88mm)
- PC Board mountable

### AT Command Set

- Hayes standard AT command set, in order to maintain the compatibility with existing SW programs
- ETSI GSM 07.07 specific AT command and GPRS specific commands
- ETSI GSM 07.05 specific AT commands for SMS (Short Message Service) and CBS (Cell Broadcast Service)
- Telit proprietary commands

### Performance

- Operating Voltage:
  - 7 to 18 VDC
  - 7 to 40 VDC (HV Option)
- Average Current Consumption @ 12VDC:
  - Idle (registered, power saving): 25mA typ.
  - GPRS class 10: 146mA typ.
- TX Power:
  - 2 W @ 850/900 MHz (Class 4)
  - 1 W @ 1800/1900 MHz (Class 1)
- Data Interfaces
  - Direct access
  - TCP
  - UDP
  - SLIP
  - PPP (using direct access)
  - AT commands

### Approvals – Certifications

- FCC
- PTCRB
- CE
- Carrier

### Data Services

- GPRS
  - Multi-slot class 10
  - Mobile station class B
  - Coding scheme 1 to 4
  - PBCCH support
- CSD
  - Asynchronous transparent circuit switched data (CSD) up to 14.4 kbps
  - Asynchronous non-transparent CSD up to 9.6 kbps
  - V.110
- SMS
  - Point-to-point mobile originated and mobile terminated SMS
  - Concatenated SMS supported
  - SMS cell broadcast
  - Text and PDU modes
- FAX
  - V.110
- Embedded TCP/IP stack including TCP/IP, UDP, SMTP and FTP

### Audio Services

- Telephony, emergency call
- Half rate, full rate, enhanced full rate and adaptive multi-rate voice codecs
  - HR, FR, EFR, AMR
- Superior echo cancellation and noise reduction
- DTMF

### Interfaces

- 9 Bi-directional CMOS I/Os
- UART select
- Power Monitor
- 1 ADC
- ITU-T V.24 serial link through UART
  - Full RS-232 (CMOS levels at 50 pin connector)
  - Baud rate 300 to 115.2 kbps
  - Auto-bauding from 2.4 to 57.6 kbps

### Python Script Support

- Integrated Python script interpreter (V1.5.2+)
- 2 MB of non-volatile memory
- 1.2 MB of RAM reserved for Python engine usage
- Powerful built-in libraries makes accessing hardware easy

### GPS Receiver (Optional)

- 16 channels
- Enhanced satellite tracking to -150 dBm
- Routable to GPRS or serial interface

### Accessories (Optional)

- GPS antenna - See User Manual for Installation Guidelines
- GSM antenna - See User Manual for Installation Guidelines
- AC power supply
- Evaluation kit (includes power supply, antennas and serial cable)

### Support

- One year manufacturers warranty
- On-line technical documentation and FAQ
- FOTA services available via Telit

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