

Terminus GSM864Q Development Kit Quick-Start Guide

Issue: R00



JANUS REMOTE
COMMUNICATIONS

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Introduction

The Terminus Wireless Terminal is a versatile communications device that can be used in many remote monitoring and control applications including alarm control, location monitoring and remote computer access. The Terminus GSM864Q Development Kit provides everything you need to get started creating custom applications using the included Python tools. The GSM864Q-BB Breakout Board included in this kit provides easy access to all of the available I/O of the Terminus, as well as, serial ports for the Telit and GPS modules. This guide will help you quickly set up and use your Terminus GSM864Q Development Kit.

Unpacking

Contents

- Terminus GSM864Q Wireless Terminal
- GSM864Q-BB Breakout Board
- 2 2-pin jumpers
- 9-pin sub D male to female serial cable
- Wall Transformer type 12 VDC, 2A power supply
- Tri-band GSM antenna w/SMA connector
- GPS antenna w/MCX connector (for GPS kits)
- Audio handset with 4P4C plug
- ESD Wrist Strap
- Documentation CD

What you need

- A computer with an RS-232 Serial interface
- A SIM card with a valid network subscription

Connecting

Note: Perform these steps in order as listed. Always use an ESD wrist strap when handling ESD sensitive devices!

Jumpers – Jumpers P7 and P8 enable the RS-232 line drivers for the AT Command and GPS CMOS UART interface. If the serial interface at the screw terminals is being used, these jumpers should NOT be used.

- Jumper P7: Serial 1, AT Command – If communicating with the Terminus via the 50-PIN header CMOS UART interface, the user will need to place a shunt across Jumper P7. This will enable the RS-232 line driver and allow connection to a PC. If the 50-pin header CMOS UART is needed, the UART_SEL pin needs to be set to Logic “0” or Ground.

If user is executing a Python script to control the application, the Python script should set GPIO 20 to logic zero to send UART data out via the 50-PIN CMOS UART interface. The UART_SEL pin should not be externally driven once GPIO 20 is configured as an output.

- Jumper P8: Serial 2, GPS – To monitor the GPS NMEA data stream via the RS-232 line driver on connector P6 install this jumper.

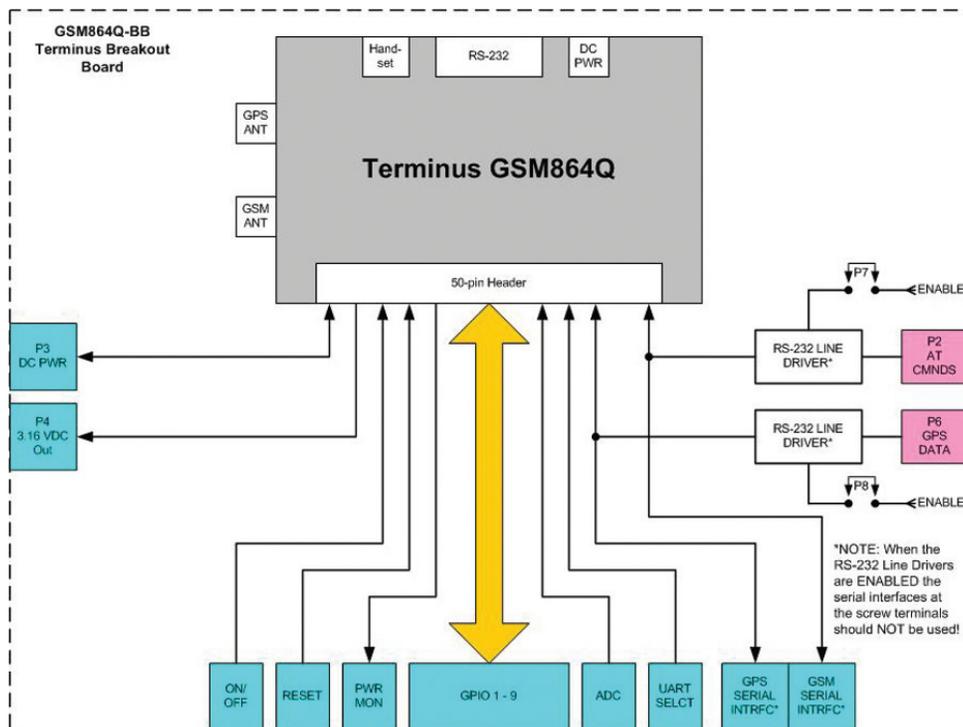


Figure 1 - Terminus Break-out Board Block Diagram

Connecting continued

Terminus Unit

- Plug the Terminus unit onto the 50-pin header on the motherboard observing that the case is within the white outline printed on the board. ***Make sure mounting holes align with both the Terminal and the Breakout PCB.**

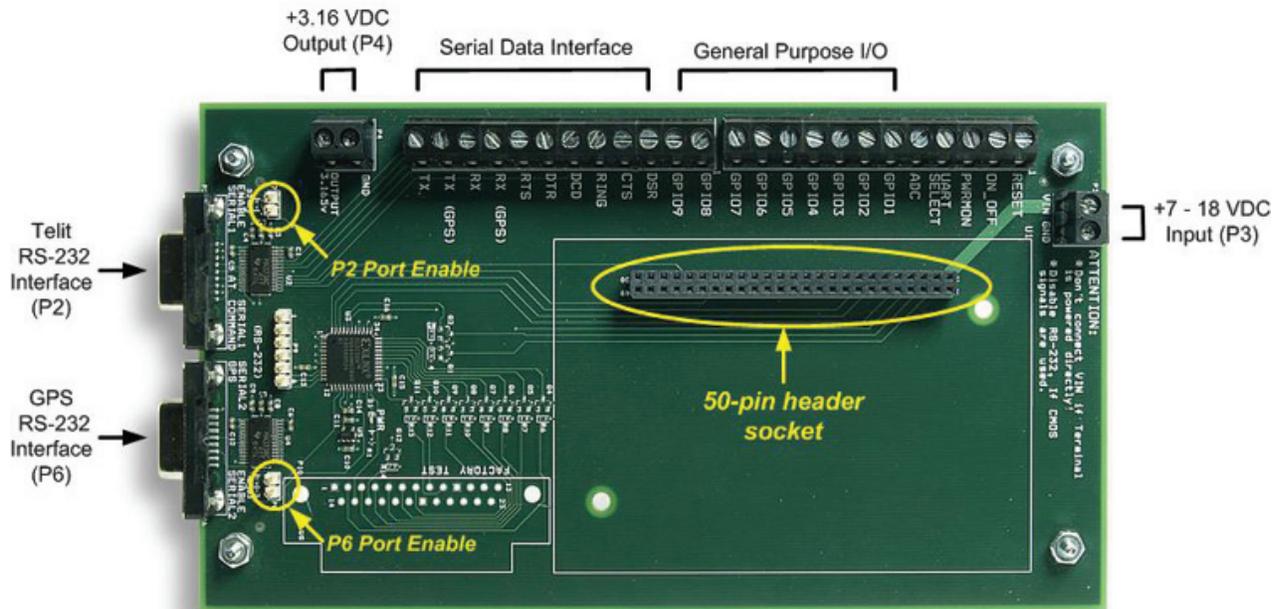


Figure 2 - Terminus Break-out Board

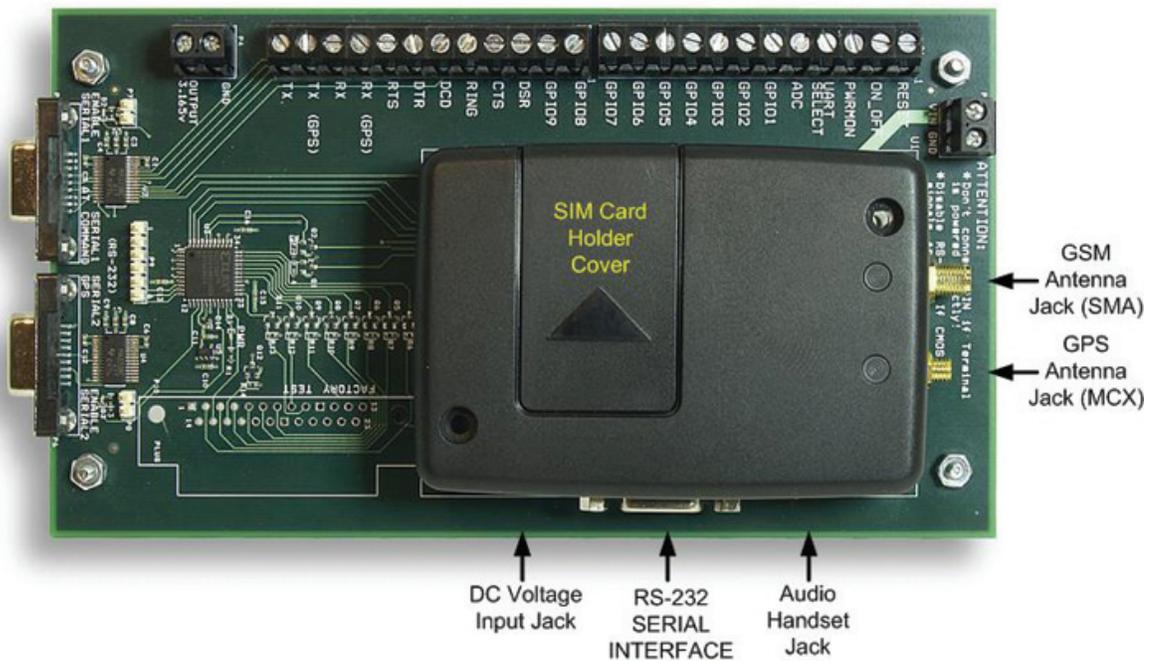


Figure 3 - Terminus Break-out Board with Terminal Installed

Connecting continued...

SIM Card

- Insert SIM card into the SIM cardholder under the top cover on the Terminus as shown

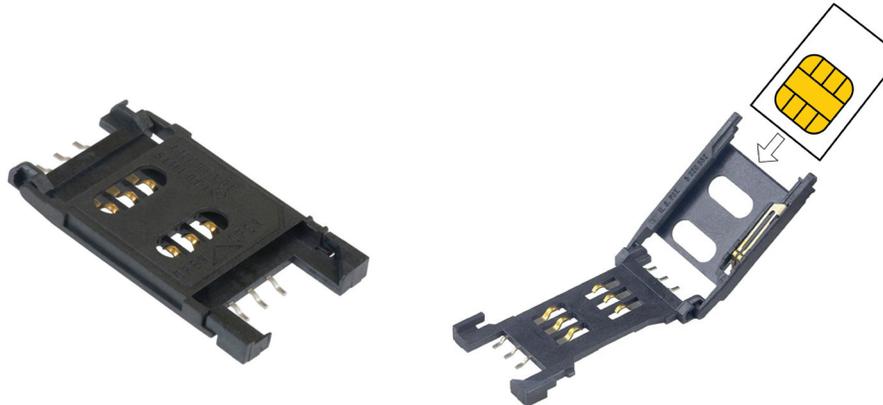


Figure 4 - SIM Card Holder

Antennas

- Connect the GSM antenna to the SMA jack on the Terminus.
- Connect the GPS antenna to the MCX jack. Make sure that a clear sky view is available for best GPS reception.

Audio Devices

- Connect the handset to the 4P4C modular audio jack on the Terminus

Power Supply

- Plug power supply into power jack on the Terminus or apply +7 to +18 VDC to the P3 Terminal Block on the Breakout Board
- Plug the wall transformer into an appropriate 120VAC source
- Terminus will power up as soon as voltage is applied. Also:
 - The GSM STATUS LED will begin to blink
 - The GPS DATA LED will begin to blink

GSM Computer Interface – This interface allows the user to communicate with the Telit Module.

- Connect the 9-pin sub-D connector of serial cable to the DB9 connector P6 of the Breakout Board and plug the other end into your computer's serial port. Boot-up your computer. Bring up serial communications terminal program and confirm your serial communications settings.

Serial Communications Settings:

- Baud Rate = 115.2 kbps
- Bits = 8
- Stop Bits = 1
- Parity = None
- Hardware Handshaking = Yes

GPS Computer Interface – This interface allows the user to communicate with the CW20 GPS module.

- Connect the 9-pin sub-D connector of serial cable to the DB9 connector PG of the Breakout Board and plug the other end into your computer's serial port. Boot-up your computer. Bring up serial communications terminal program and confirm your serial communications settings.

Serial Communications Settings:

- Baud Rate = 9600 bps
 - Bits = 8
 - Stop Bits = 1
 - Parity = None
 - Hardware Handshaking = Yes
- NS3K View – This program has been included to allow the user to observe the GPS data graphically. Please refer to the included Quick Start Guide to use.

AT Commands

- After the initial startup of the kit and a serial connection to a computer is made, refer to Section 6 of the Terminus User Guide for the AT Commands needed to configure for network access.
- Please refer to the Telit AT Commands Reference Guide document included on the Evaluation Kit CD for command syntax and codes.

Additional Information

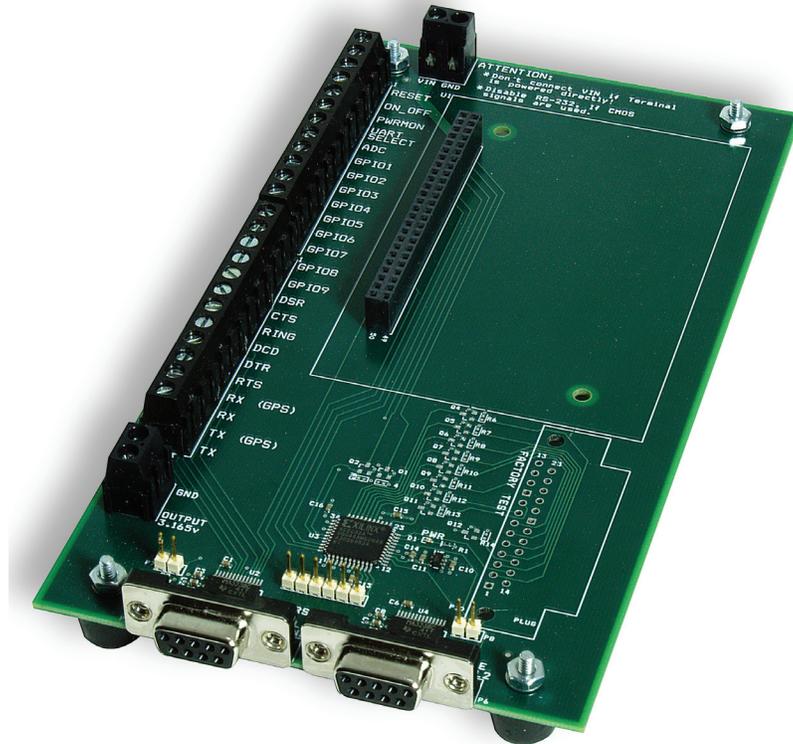
- Please refer to the Terminus User Guide included on the Documentation CD for more detailed information on the various capabilities and functions.
- Please visit the Janus website at www.janus-rc.com for the latest product information and documentation.

Contents of the Terminus Evaluation Kit Companion CD

- Terminus User Guide
- Telit AT Commands Reference Guide
- Telit GC864 Product Description
- PyWin Python IDE
- Telit Easy Script in Python
- Telit Easy GPRS User Guide
- Terminus Tracking Demo App Note
- Terminus Tracking Demo Example Python Code

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R00	01/12/09	Release

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