

GSM | GPRS

GE863-QUAD

Embedded

GE863-PY

Embedded



0101 Telit Unified
0101 AT Command Set

BGA Package

4 GPRS Quad Band GPRS

GPRS Class 10

RoHS Compliant

SIM SIM Access Profile

PYTHON* Script Interpreter

Embedded FTP and SMTP Client

Extended Temperature Range

Extended RF Sensitivity

Serial Port Multiplexer (GSM 7.10)

Embedded TCP/IP Stack

The GE863-QUAD module, formerly known as Trizium, is the latest generation of this product family, now boasting quad-band functionality and RoHS compliance and additional new features. This translates into one consistent product offering for global GSM networks and provides for significant cost advantages with the savings in approvals and logistics costs.

The unique Ball-Grid-Array (BGA) package enables a low profile and small resulting product size for the design of compact applications. Since connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting. With its low profile design and extended temperature range, the Telit GE863-QUAD is the perfect platform for compact, medium to high volume m2m applications. Additional features such as jamming detection, integrated TCP/IP protocol stack, and Easy Scan® functionality enhance the application at no additional cost.

The GE863-PY makes it possible to run the customer's application inside the module, thus making it a complete platform for m2m solutions. State-of-the-art SPI and IIC interfaces provide connectivity for external peripherals such as sensors and displays.

As a part of Telit's corporate policy of environmental protection, all products comply to the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

Product features

- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- Output power
 - Class 4 (2W) @ 850 / 900 MHz
 - Class 1 (1W) @ 1800 / 1900 MHz
- Control via AT commands according to GSM 07.05, 07.07 and Telit enhancements
- Supply voltage range: 3.4–4.2 V DC (3.8 V DC recommended)
- Power consumption (typical values)
 - Power off: < 26 uA
 - Idle (registered, power saving): < 4 mA
 - Dedicated mode: 200 mA
 - GPRS cl.10: 370 mA
- Serial port multiplexer GSM 7.10 (for Order-No. 3 990 250 661 and 3 990 250 662 only)
- SIM access profile (for Order-No. 3 990 250 661 and 3 990 250 662 only)
- Sensitivity:
 - 107 dBm (typ.) @ 850 / 900 MHz
 - 106 dBm (typ.) @ 1800 / 1900 MHz
- Dimensions: 41.4 x 31.4 x 3.6 mm
- Weight: 9 grams
- Extended temp. range: -30°C to +80°C
- RoHS compliant
- TCP/IP stack access via AT commands



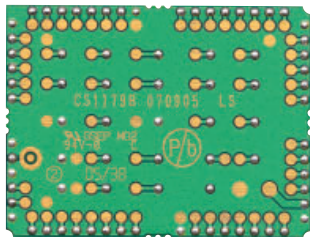
Making machines talk.

GE863-QUAD

Embedded

GE863-PY

Embedded



actual size

Interfaces

- 18 I/O ports maximum
- Analog audio (balanced and unbalanced)
- 3 A/D plus 1 D/A converters
- Buzzer output
- ITU-T V.24 serial link through CMOS UART:
 - Baud rate from 300 to 115,200 bps
 - Autobauding from 2,400 to 57,600 bps

Audio

- Telephony, emergency call
- Half rate, full rate, enhanced full rate and adaptive multi rate voice codecs (HR, FR, EFR, AMR)
- Superior echo cancellation & noise reduction
- Handset & hands-free operations
- DTMF

Approvals

- Fully type approved conforming with R&TTE directive
- CE, FCC, IC, GCF, PTCRB, Anatel (for Order-No. 3 990 250 661 and 3 990 250 662 only)

SMS

- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS supported
- SMS cell broadcast
- Text and PDU mode

Circuit switched data transmission

- Asynchronous transparent circuit switched data (CSD) up to 14.4 kbps
- Asynchronous non-transparent CSD up to 9.6 kbps
- V.110

GPRS data

- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support

Fax

- Group 3, class 1

GSM supplementary

- Call forwarding
- Call barring
- Call waiting & Call hold
- Advice of charge
- Calling line identification presentation (CLIP)
- Calling line identification restriction (CLIR)
- Unstructured supplementary services mobile originated data (USSD)
- Closed user group

Additional features

- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Alarm management
- Battery management
- Network LED support
- IRA character set
- Jamming detection & report
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP and FTP protocols

Python* application resources (GE863-PY ONLY)

- Python* script interpreter (module takes the application code directly in the Python* language)
- Memory: 3 MB of NV memory for the user scripts and 1.5 MB RAM for the Python* engine usage
- Over-the-air application SW update
- IIC Bus and SPI Bus controlled in Python*

**Telit's EASY features**

- EASY SCAN® automatic scan over GSM frequencies (also without SIM card)

Order-No.

GE863-QUAD 3 990 250 653
 GE863-PY 3 990 250 654
 GE863-QUAD 3 990 250 662
 (with additional feature CMUX and SAP)
 GE863-PY 3 990 250 661
 (with additional feature CMUX and SAP)

Telit wireless solutions

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