Telit ® wireless solutions

Making machines talk.®
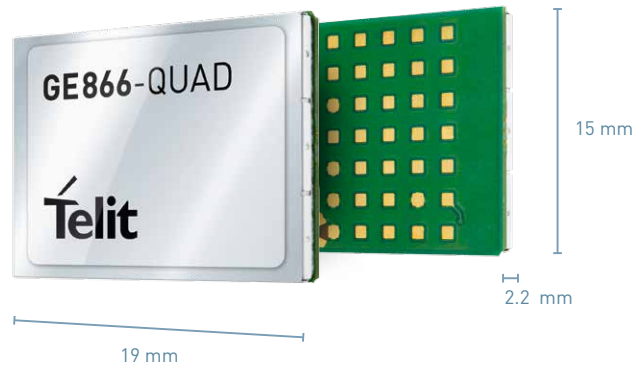
● ● **GE 866**-QUAD

GSM | GPRS Embedded

GE866-QUAD

Telit

15 mm

2.2 mm

19 mm

Product Description

The GE866-QUAD is the smallest generation in Telit's 2G module portfolio. With its ultra-compact 15 x 19 mm LGA footprint, it is designed for those m2m applications requiring miniature foot print. It is a quad-band 850/900/ 1800/1900 MHz GSM | GPRS communication product based on the market' latest 2G core which allows integrators to plan on availability for even the longest lifecycle applications, highly recommended for new designs specified for 2G coverage worldwide.

Key features

- Easy and low cost to integrate in small application sizes because of ultra-compact and robust LGA package

- Ideal solution for applications in wearable technology products, security alarm systems, automated meter reading and Point-of-Sales (POS) terminals.

- Easy to use in mass-production automated manufacturing

- Fully voice capable with analog and digital audio interfaces

- Battery friendly operates on 1.8 V GPIOs

- System in a Package (SiP) platform for complete m2m solutions with embedded Python Script Interpreter.

- Over-the-Air firmware update through Premium FOTA Management.

Variants

Global quad-band coverage. Limited operator coverage in North America due to 2G footprint reduction policies.

m2mAIR Ready

This product is capable of supporting the extensive suite of m2mAIR value-added services and connectivity you can use to enhance your application and boost your competitive advantage.

AVAILABLE FOR

- EMEA
- North America
- Latin America
- APAC
  - Korea
- Australia

Combine your **Cellular** module with

- Short Range modules

- GNSS modules

www.telit.com

Complete, Ready to Use Access to the Internet of Things

Telit Modules + m2mAIR Value-Added Services including Connectivity

m2mAIR by Telit m2m experts

QUALITY
INVESTMENT PROTECTION
BUSINESS SCALABLE
EASE OF INTEGRATION

ONE STOP.
ONE SHOP. NOW, INNOVATE!

GE 866-QUAD

Product features

- LGA form factor
- Quad-band GSM | GPRS 850/900/1800/ 1900 MHz
- GSM | GPRS protocol stack 3GPP Release 4 compliant
- Control via AT commands according to 3GPP TS 27.005, 27.007 and Telit custom AT commands
- Serial port multiplexer 3GPP TS 27.010
- SIM access profile
- TCP/IP stack access via AT commands
- SIM application toolkit 3GPP TS 51.014
- DARP/SAIC support
- 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
- Multiple audio profiles pre-programmed and fully configurable by mean AT commands
- Embedded DTMF decoder
- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS supported
- SMS cell broadcast
- Text and PDU mode
- SMS over GPRS
- 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
- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Alarm management
- Network LED support
- IRA, GSM, 8859-1 and UCS2 character set
- Jamming detection
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP, ICMP and FTP protocol
- Remote AT commands
- Event monitor

Data

- 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
- GERAN Feature Package 1 support (NACC, Extended TBF)

Environmental

- Dimensions: 15 x 19 x 2.2 mm

Interfaces

- 7 I/O ports maximum (1.8 V logic level)
- Analog audio (balanced), digital audio
- 1 A/D plus 1 D/A converter
- Buzzer output
- ITU-T V.24 serial link through CMOS UART:
  - Baud rate from 300 to 115,200 bps
  - Autobauding up to 115,200 bps

Approvals

- CE, GCF (Europe)
- FCC, IC, PTCRB (North America)

Electrical & Sensitivity

- Output power
  - Class 4 (2 W) @ 850/900 MHz
  - Class 1 (1 W) @ 1800/1900 MHz
- Power consumption
  - Power off: 2 uA (typical)
  - Idle (registered, power saving): 0.9 mA @ DRX = 9
  - GPRS cl.10: 330 mA @ max power level
- Supply voltage range: 3.1 - 4.5 VDC (3.8 V DC recommended)
- Sensitivity:
  - 108 dBm (typ.) @ 850/900 MHz
  - 107 dBm (typ.) @ 1800/1900 MHz
- Extended temperature range
  - 40°C to +85°C (operational)
  - 40°C to +85°C (storage temperature)

Software

- PFM (Premium FOTA Management) Over-The-Air Update service
- Python* script interpreter (module takes the application code directly in the Python* language)
- Memory: 800 kB of NV memory for the user scripts and 1 MB RAM for the Python* engine usage
- EASY SCAN ®: automatic scan over GSM frequencies (also without SIM card)

Join the Telit Technical Forum

For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all m2m topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing m2m community and exchange experiences.