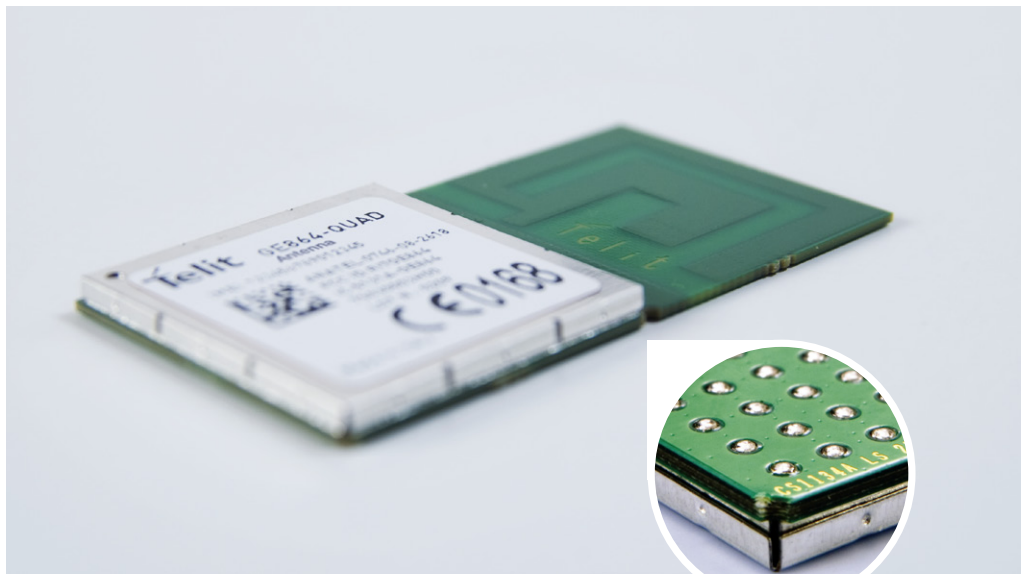


GSM | GPRS

# GE864-QUAD ANTENNA

Embedded



- Ultra Compact
- Telit Unified AT Command Set
- BGA Package
- Quad Band GPRS
- GPRS Class 10
- RoHS Compliant
- 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

TELIT INFINITA SERVICES

Premium FOTA Management

The new GE864 family introduces the first GSM/GPRS module on the market equipped with an integrated antenna, pushing the boundaries of smooth integration one step further.

The GE864-QUAD Antenna module features a compact design and the extended temperature range of the unique BGA (Ball-Grid-Array) package for the GSM-GPRS engine, which has been coupled with a printed antenna seamlessly integrated in the design. Typical m2m environments have been taken into consideration, thus making this module the perfect platform for high-volume m2m applications requiring an integrated antenna.

The robustness of the embedded tailor made QUAD-band antenna dramatically cuts down the design-to-market time. Costs and efforts involved in the cumbersome RF development phase are minimized because the whole RF chain is already embodied in the module, relieving the customer from all EMC integration problems between module and antenna.

The GE864-Quad Antenna as such, inherits all the premium features and performances that characterize these modules, as the capability to run the customer's application inside the module through its Python interpreter, or the state-of-the-art SPI and IIC interface, providing connectivity to external peripherals such as sensors and displays.

Telit Wireless Solutions provides 360° degrees support for specific needs, with a dedicated team working since decades in the field, which will offer further implementation assistance in this very specialized field of technology, given its experience and specific knowledge.

All Telit modules-support Over-the-Air firmware update by means of Premium FOTA Management. By embedding RedBend's vCurrent® agent, a proven and battle-tested technology powering hundreds of millions of cellular handsets world-wide, Telit is able to update its products by transmitting, in just one delta file, the differences of the new firmware from the one to be updated.

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).

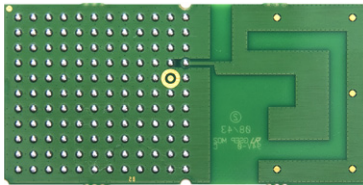
### Product features

- 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
- Serial port multiplexer GSM 7.10
- SIM access profile
- Supply voltage range: 3.22 – 4.5 V DC
- (3.8 V DC recommended)
- TCP/IP stack access via AT commands
- Power consumption (typical values)
  - Power off: < 26 uA
  - Idle (registered, power saving): 2.6 mA
  - Dedicated mode: 200 mA
  - GPRS cl.10: 370 mA
- Sensitivity:
  - 107 dBm (typ.) @ 850 / 900 MHz
  - 106 dBm (typ.) @ 1800 / 1900 MHz
- Dimensions: 30 x 60 x 2.8 mm
- Weight: 7.4 grams
- Extended temperature range
  - 40°C to +85°C (operational)
  - 40°C to +85°C (storage temperature)
- RoHS compliant
- Antenna specifications:
  - Type: Double folded monopole
  - Polarization: Linear
  - VSWR: <2
  - Impedance: 50Ω
  - Gain avg. (typ.): 0 dBi
  - Gain max. (typ.): 2 dBi

**Making machines talk.®**

# GE864-QUAD ANTENNA

Embedded



## Interfaces

- n 21 I/O ports maximum
- n Analog audio (balanced and unbalanced)
- n 3 A/D plus 1 D/A converters
- n Buzzer output
- n ITU-T V.24 serial link through CMOS UART:
  - Baud rate from 300 to 115,200 bps
  - Autobauding from 1.2 up to 115.2 Kbps

## Audio

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

## Approvals

- n Fully type approved conforming with R&TTE directive
- n CE, GCF, FCC, PTCRB, IC, Anatel

## SMS

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

## Circuit switched data transmission

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

## GPRS data

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

## Fax

- n Group 3, class 1

## GSM supplementary

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

## Additional features

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

## Python\* application resources

- n Python\* script interpreter (module takes the application code directly in the Python\* language)
- n Memory: 1.9 MB of NV memory for the user scripts and 1.2 MB RAM for the Python\* engine usage
- n Over-the-air application SW update
- n IIC Bus and SPI Bus controlled in Python\*



## Telit's EASY features

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

## Order-No.

Please contact your Telit representative for order codes and all further information



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