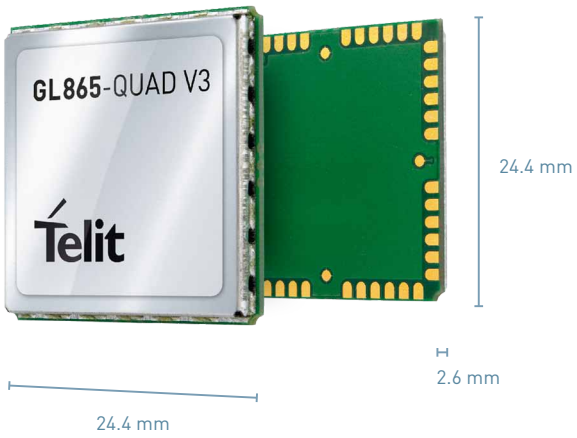
GL865-QUAD V3

GSM | GPRS Embedded



Product Description

The GL865-QUAD V3 is a quad band GSM|GPRS module based on the latest release of Intel's 2G cellular chipset, protecting our customers' design investments with long-term availability. This variant features VQFN packaging in lieu of LCC castellation of the original GL865 but maintains full pad-level compatibility with previous models, thereby providing a direct replacement path for applications based on the highly popular and widely deployed GL865-QUAD. Simple drop-in migration and technology upgrade path to 3G high-speed performance is also available with pin-to-pin compatible HSPA companion module UL865.

The product is highly recommended for new designs requiring quad band GSM|GPRS coverage and 3G scalability in a compact and robust QFN package delivering easy integration and reduced impact on final application costs. An embedded SIM-chip is also available as a mounting option.

Key Benefits

- Automated manufacturing process friendly product in its small footprint
- Ideal solution for applications in security alarm systems, automated meter reading, and POS terminals. Battery friendly operation with 1.8V GPIOs
- Easy to bundle-design with Telit's GPS or GPS | GLONASS receivers for applications requiring location awareness such as fleet management and track-and-tracing
- Complete SMT platform for m2m solutions running the customer application inside the module with embedded Python Script Interpreter
- Over-the-Air firmware update by means Premium FOTA Management

Family Concept

The Telit xL865 family was conceived to address system integrators and developers needing to start with low volumes (LCC mount) as well as those already running high volumes (VQFN mount). Its ultra-compact package allows integration into very small devices. The family includes products that are pin-to-pin and API compatible in GSM | GPRS, CDMA | 1xRTT and UMTS | HSPA.

Variants

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

IoT Connectivity Ready

This product is capable of supporting the extensive suite of IoT Connectivity 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



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Complete, Ready to Use Access to the Internet of Things



ENABLING THE IoT
IS WHAT WE DO.

GL865-QUAD V3

Product Features

- VQFN form factor
- Quad band GSM | GPRS 850/900/1800/1900 MHz
- GSM | GPRSprotocol 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
- Optional SIM-chip
- 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 protocols
- PFM (Premium FOTA Management) Over-The-Air Update service
- Remote AT commands
- Event monitor

Data

- Asynchronous non-transparent CSD up to 9.6 kbps
- V.110
- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support
- GERAN Feature Package 1 support (NACC, Extended TBF)

Environmental

- Dimensions: 24.4 x 24.4 x 2.6 mm
- Weight: 2.8 grams
- Extended temperature range
  -40°C to +85°C (operational)
  -40°C to +85°C (storage temperature)

Interfaces

- 8 I/O ports maximum (1.8 V logic level)
- Analog audio (balanced), digital audio
- 2 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

- Fully type approved conforming R&TTE directive
- GCF
- FCC/IC, PTCRB
- ANATEL

Electrical & Sensitivity

- Output power
  - Class 4 (2W) @ 850/900 MHz
  - Class 1 (1W) @ 1800/1900 MHz
- Supply voltage range:
  3.1 - 4.5 VDC (3.8 V DC recommended)
- Power consumption (typical values)
  - Power off: 2 uA (typical)
  - Idle (registered, power saving): 0.8 mA @ DRX=9
  - GPRS cl.10: 300 mA @ max power level
- Sensitivity:
  -108 dBm (typ.) @ 850/900 MHz
  -107 dBm (typ.) @ 1800/1900 MHz

Software

- 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)

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