GL865 V3.1

GSM | GPRS Embedded

24.4 mm

24.4 mm

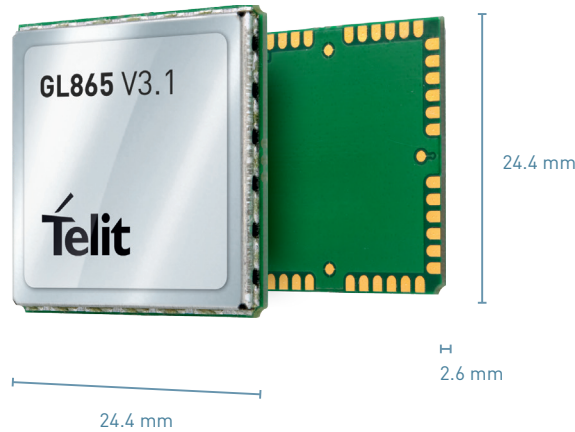2.6 mm

Product Description

The GL865 V3.1 is the new Telit GSM/GPRS product series recommended for new designs for deployment in those regions where there is still a long way to go before 2G sunset and for those "lite" IoT applications for which there is no point in moving out from cost-optimized 2G modules to oversized and more expensive 3G/4G modules. These new modules are available both in dual-band and quad-band variants for global coverage. The GL865 V3.1 modules maintain full hardware and software compatibility with the previous GL865 V3, thereby providing a direct replacement path. 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 GSM|GPRS coverage and 3G scalability in a compact and robust QFN package delivering easy integration and reduced impact on final application costs.

Key Benefits

- Seamless upgrade path for applications currently using other modules of the GL865 series
- Recommended for new 2G cost-sensitive designs
- Recommended platform for applications requiring ultra low power consumption
- Ideal solution for applications in security alarm systems, automated meter reading, and POS terminals.
- 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
- Premium FOTA Management - Easy Firmware update Over-The-Air by transmitting only a small delta file

Variants

Premium FOTA Management - Easy Firmware update Over-The-Air by transmitting only a small delta file. 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

www.telit.com

**Complete, Ready
to Use Access** to the
Internet of Things

IoT MODULES

IoT CONNECTIVITY

IoT PLATFORMS

IoT KNOW-HOW

ENABLING END-TO-END
IoT SOLUTIONS

GL865 V3.1

Product Features

- VQFN form factor
- Dual band 900/1800 MHz or Quad band 850/900/1800/1900 MHz GSM | GPRS
- 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 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 RED directive
- GCF

Electrical & Sensitivity

- Output power
  - Class 4 (2W) @ 850/900 MHz
  - Class 1 (1W) @ 1800/1900 MHz
- Supply voltage range:
  3.2 - 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)

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 IoT topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing IoT community and exchange experiences.