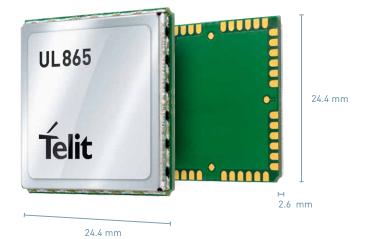




UMTS | HSPA 7.2/5.76 Embedded



# **Product Description**

The UL865 is a 3G module in the xL865 family. It is based on the latest Intel chipset to protect the developer's design investments as a long term availability solution. The UL865 features VQFN packaging that is fully pad-level compatible with its 2G companion, the GL865-DUAL V3.

# **Key Benefits**

- Simple drop-in migration and technology upgrade path to 3G high-speed performance for designs currently using the GL865-DUAL V3
- Ideal for fleet management and track-and-tracing application with easy to follow reference designs for pairing with Telit GPS and GPS | GLONASS receivers
- Internet application friendly with integrated TCP/IP and UDP/IP stacks
- Voice-capable for applications requiring digital (DVI) interface
- 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
- Battery-friendly 1.8V GPIO

# 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**

Band combination variants available for European and North American applications

### m2mAIR Mobile and Cloud Ready

This product is capable of supporting the extensive suite of Value Added Services from m2mAIR Mobile including Module Management and others which make the management of m2m deployments under mobile networks effective, enhancing profitability and reliability. It is also Cloud-ready which means that the AT command library in this module includes a set of high-level commands designed exclusively for quick and hassle-free on-boarding of the device to the cloud and to back-end systems and servers. Telit Cloud-ready modules powered by deviceWISE make application-level data flows and controls simple to program, maintain and improve.

#### AVAILABLE FOR

- EMEA
- North America

atin America

- APAC
- Africa
- Russia

**Click-to-Cloud** – with Powerfull AT Commands



#### Combine your Cellular module with

• Short Range modules





#### www.telit.com

Complete, Ready to Use Access to the Internet of Things



Telit Modules + m2mAIR Mobile Value-Added Services including Connectivity





|                              | UL865-EUR   | UL865-EUD   | UL865-NAR     | UL865-NAD     |
|------------------------------|-------------|-------------|---------------|---------------|
| Market                       | EMEA / APAC | EMEA / APAC | North America | North America |
| HSPA Upload (Mbps)           | 5.76        | 5.76        | 5.76          | 5.76          |
| HSPA Download (Mbps)         | 7.2         | 7.2         | 7.2           | 7.2           |
| Frequencies                  |             |             |               |               |
| UMTS   HSPA bands (MHz)      | 900/2100    | 900/2100    | 850/1900      | 850/1900      |
| GSM GPRS EDGE<br>bands (MHz) | 900/1800    | 900/1800    | 850/1900      | 850/1900      |
| Features                     |             |             |               |               |
| Data                         | •           | •           | •             | •             |
| Voice                        | •           |             | •             |               |



#### Product features

- Supported bands
- EUR/EUD variants:
  - -2 Bands GSM | GPRS EDGE 900 / 1800 MHz
  - -2 Bands UMTS | HSPA 900 / 2100 MHz
- NAR/NAD variants:
  - -2 Bands GSM | GPRS | EDGE 850/1900 MHz
  - -2 Bands UMTS | HSPA 850/1900 MHz
- SIM Access Profile
- 3GPP release 7 compliant
- · Control via AT commands according to 3GPP TS27.005, 27.007 and customized Telit AT commands
- Serial port multiplexer 3GPP TS27.010
- SIM application Tool Kits 3GPP TS 51.014
- Built in UDP/TCP/FTP/SMTP stack
- Digital voice and SMS
- IP stack with TCP and UDP protocol
- Standard and extended AT command set

#### Environmental

- Small dimensions 24.4 x 24.4 x 2.6 mm
- Temperature range -40°C to +85°C
- Interfaces
- 8 I/O ports maximum including multifunctional I/Os (1.8 V logic level)
- I2S for digital audio interface
- USB 2.0 HS

- UART
- SPI
- 1.8 V/3 V SIM interface
- 2 A/D plus 1 D/A converters

# Approvals

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

#### Electrical

- Output power
  - Class 4 (2 W, 33 dBm) @ GSM 850 /900
  - Class 1 (1 W, 30 dBm) @ GSM 1800/1900
  - Class 3 (0.25 W, 24 dBm) @ UMTS
  - Class E2 (0.5 W, 27 dBm) @ EDGE 850/900
- Class E2 (0.4 W, 26 dBm) @ EDGE 1800/1900
- Supply voltage
  - Nominal: 3.8 VDC
  - Range: 3.4 4.2 VDC

### Software

- Python\* application resources
- Python\* version = 2.7.2
- (module takes the application code directly in the Python\* language)
- Memory: 2 MB of NV memory for the user scripts and 2 MB RAM for

### Additional features

- PFM (Premium FOTA Management) Over-The-Air Update service
- Remote AT commands
- Event monitor

Python\* script interpreter

the Python engine usage



### 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.

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