



## UL865 Series

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 IoT 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 1.8 V 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

### IoT Connectivity and Portal Ready

This product is capable of supporting the extensive suite of Value Added Services IoT Connectivity including Module Management and others which make the management of IoT deployments under mobile networks effective, enhancing profitability and reliability. It is also Portal-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 portal and to back-end systems and servers. Telit Portal-ready modules powered by deviceWISE make application-level data flows and controls simple to program, maintain and improve.

#### AVAILABLE FOR

EMEA  
North America  
Latin America  
APAC  
Korea  
Australia

**Click-to-Portal** – with Powerful AT Commands



**Combine your Cellular module with**

Short Range modules



GNSS modules



[www.telit.com](http://www.telit.com)

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



IoT MODULES



IoT CONNECTIVITY



IoT PORTAL

ENABLING THE IOT  
IS WHAT WE DO.

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

## UL865 Series

### 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
- BR variant:
  - 4 bands GSM | GPRS | EDGE 800/900/1800/1900 MHz
  - 2 bands UMTS | HSPA 850/2100 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

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)
- ANATEL (Brazil)

### Electrical

- Output power
  - Class 4 (2 W, 33 dBm) @ GSM 850/900
  - Class 1 (1 W, 30 dBm) @ EDGE 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 and Application Development

AppZone application resources

- Programming language: C
- IDE: Eclipse
- Dedicated File System: 5 MB
- Separate App. RAM Space: 2 MB

### Additional features

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

### 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

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