

# LE866 Series

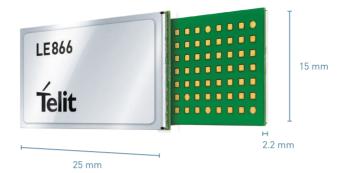
LTE 10/5 Embedded

### **Product Description**

The LE866 is the smallest LTE module in the market. With its ultra compact 15 x 25 mm LGA footprint, it is designed for applications with severe space constraints, such as wearables.

The LE866 is an LTE UE Category 1 device with maximum downlink data rates of 10 Mbps and maximum uplink data rates of 5 Mbps. LTE Cat.1 devices provide significant reductions in cost, size and power consumption compared to the traditional High Category LTE devices. These advantages make the LE866 the perfect platform to enable the quick implementation of the LTE technology in the Internet of Things, particularly in machine-to-machine (M2M), where low cost and low power are more relevant than high speed.

The LE866 Series includes several regional variants: dual band versions for deployment in the new 4G networks of Verizon Wireless in the USA, Korea Telecom and Softbank in Japan and a tri band version for AT&T and T-Mobile in the USA. Those products are highly recommended for new designs in particular for those that need to replace old GPRS or CDMA devices to count on availability for even the longest life-cycle applications.



### **Key Benefits**

- Design once and deploy globally, with the swappable xE866 form factor family
- Compact LGA package is ideally suited for low profile integrated solutions, limited real estate application boards, reducing cost in high-volume applications, as well as saving space and weight in portable devices
- Perfect platform for regional M2M applications such as smart metering, security & surveillance, point of sales, health monitoring, fleet management, asset tracking and wearable devices

### Family Concept

The xE866 nested family includes pin-to-pin compatible 2G and 3G modules – the GE866 and the UE866 respectively – making it another pillar of the concept "design once and deploy globally". It enables integrators to develop a single PCB layout for 2G, 3G and 4G technologies.

### AVAILABLE FOR

| EMEA          |  |  |  |  |
|---------------|--|--|--|--|
| North America |  |  |  |  |
| Latin America |  |  |  |  |
| APAC          |  |  |  |  |
| Africa        |  |  |  |  |
| Russia        |  |  |  |  |

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|                | LE866-SV1               | LE866A1-NA                          | LE866A1-KK          | <b>LE866A1</b> -JS  |
|----------------|-------------------------|-------------------------------------|---------------------|---------------------|
| Market         | North America           | North America                       | Korea               | Japan               |
|                | (Verizon)               | (AT&T, T-Mobile)                    | (Korea Telecom)     | (Softbank)          |
| 4G bands (MHz) | B4(AWS1700)<br>B13(700) | B2(1900)<br>B4(AWS1700)<br>B12(700) | B3(1800)<br>B8(900) | B1(2100)<br>B8(900) |
| Approvals      | FCC/IC, GCF             | FCC/IC, PTCRB                       | KC                  | JATE/TELEC          |
|                | Verizon                 | AT&T                                | KT                  | Softbank            |

# LE866 Series

### **Product Features**

- Rx Diversity (optional Single RX operation)
- LTE UE Category 1
- 3GPP release 9 compliant
- Control via AT commands according to 3GPP TS27.005, 27.007 and customized AT commands
- Serial port multiplexer 3GPP TS27.010
- SIM application Tool Kit 3GPP TS 51.01
- SMS
- IPv4/IPv6 stack with TCP and UDP protocol
- SSL

### Data

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- LTE Category 1
- Uplink up to 5 Mbps
- Downlink up to 10 Mbps

## Physical & Environmental

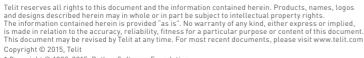
- Small dimensions 15 x 25 x 2.2 mm
- Extended temperature range: -40 to +85 °C

### Interfaces

- 7 I/O ports maximum including multifunctional I/Os
- USB 2.0 HS
- 2 UART
- I<sup>2</sup>C
- 1.8 V SIM interface

### Electrical

- Output power
- Class 3 (0.2 W, 23 dBm) @ LTE
- Supply voltage
   Nominal: 3.8 VDC



Telit Wireless Solutions Inc.

3131 RDU Center Drive, Suite 135

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Telit Communications S.p.A. Via Stazione di Prosecco, 5/B

I-34010 Sgonico (Trieste), Italy

Phone +39 040 4192 200

Fax +39 040 4192 383

E-Mail EMEA@telit.com



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 Morrisville, NC 27560, USA

 Phone
 +1 888 846 9773 or +1 919 439 7977

 Fax
 +1 888 846 9774 or +1 919 840 0337

 E-Mail
 NORTHAMERICA@telit.com

Telit Wireless Solutions Inc. Rua Paes Leme, 524, Conj, 126 05424-101, Pinheiros São Paulo-SP-Brazil Phone +55 11 3031 5051 Fax +55 11 3031 5051 E-Mail LATINAMERICA@telit.com Telit Wireless Solutions Co., Ltd. 8th FL, Shinyoung Securities Bld. 6, Gukjegeumyung-ro8-gil, Yeongdeungpo-gu Seoul, 150-884, Korea Phone +82 2 368 4600 Fax +82 2 368 4606 E-Mail APAC@telit.com