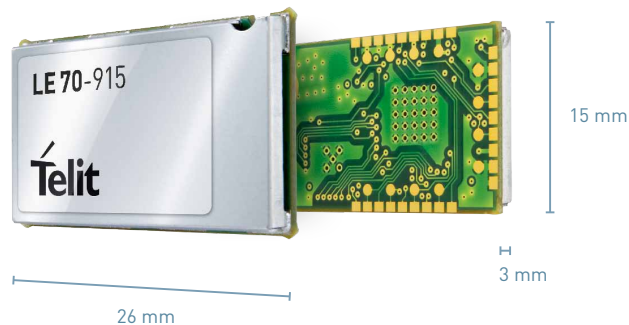# LE70-915

LICENCE-FREE SYSTEM
for Frequencies <1 GHz   Embedded

15 mm
26 mm
3 mm

Product Description

Telit LE modules family are the latest generation of multi-band multi-channel radio module with advanced proprietary embedded stack easy to integrate and use in point-to point or star network communication.

LE70-915 modules operate in 915MHz band with 500 mW Output power and with ultra-low power standby mode, efficient wake up on radio and budget link of 142 dB.

Available in LGA format, these pre-certified RF modules provide TTL RS232 interface, integrated digital and analog I/Os and can be easily integrated into applications such as energy monitoring (windmills and solar panels), weather stations, irrigation, and watering, thus reducing development time and cost while providing highly reliable communications.

LE70-915 modules have the same form factor and pinout of LE50-868 and LE70-868. They have also the same form factor and are pin to pin compatible with Telit ZE Family (ZigBee 2007 and PRO stack), NE Family (Mesh low power) and ME Family (Wireless M-Bus).

Key Benefits

- Superior outdoor LOS range of up to 40 miles with 6 dB antenna gain, 500 mW output power and -115 dBm @ 9.6 Kbps sensitivity

- 902-928 MHz band with Frequency Hopping Spread Spectrum on 50 channels aligned with FCC regulation

- Ready to use and easy to handle (suitable for cable replacement applications) with Data encryption (AES128) available, Cyclic wake up and Download Over The Air (DOTA) features.

Family Concept

The Telit portfolio of short range wireless modules is comprised of a wide range of innovative solutions ranging from ready-to-use wireless radio modems to OEM modules and RF design services.

Operating in the license-free ISM frequency bands of 169, 433, 868, 915 MHz, and 2.4 GHz, they are available in both standard air-interface protocols such as wireless M-Bus and ZigBee as well as proprietary low-power, low data rate technologies.

Telit pre-certified short range modules share small dimensions, form factor, and are pin2pin compatible with oneanother, which enables re-use of your design with different modules and air interface technologies as needed to meet your business and environmental requirements. Telit also offers a full set of tools to shorten and streamline your design effort.

Combine your **Short Range** module with

Cellular modules

GNSS modules

www.telit.com

ENABLING THE IoT
IS WHAT WE DO.

LE70-915

Product Features

- Range: Up to 10.000 m
- Output Power: 15 dBm to 27 dBm
- Serial Data Rate: Up to 115.2 Kbps
- Radio Data Rate: from 9.6 kbps to 57.6 kbps
- Sensitivity (PER < 0,8): -115 dBm
- 128 kB Flash, 8 kB RAM, 2 kB EEPROM
- 32.768 kHz real time clock (RTC), 4 timers
- 9 I/O ports max available

Environmental

- LGA mount technology, 30 pads RF pads for antenna
- Dimensions: 26 x 15 mm, height 3 mm
- Weight 1.7 g
- Temperature: -40°C to +85°C

Electrical

- Power Supply: 2.3 to 3.6V
- Board Consumption at 500 mW:
  - Rx: 25mA
  - Tx: 330mA
  - Std-by consumption:
    - external wake-up (interrupt): 1μA
    - cyclic wake-up (internal timer running): 3 μA

Networking

- Frequency: 902 - 928 MHz
- Modulation: GFSK
- Number of channels: 50 [FHSS]
- Point to point, star network
- Serial Interface: RS232 TTL (Tx, Rx, Cts, RTS)
- ACK
- Addressed Mode
- Listen Before Talk
- Telemetry
- Analog RSSI
- Cyclic wake up
- Remote CTS/RTS control
- Hayes Mode
- I/O Copy
- Download Over-the-Air
- AES encryption

Optional Features

- LE70-915 module is available with DIP adapter and SMA connector

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.