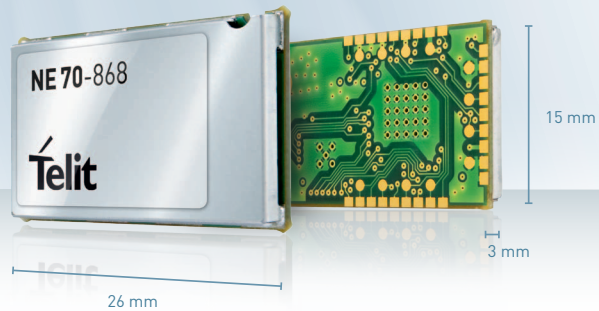


●● NE 70-868

LICENCE-FREE SYSTEM
for Frequencies <1 GHz

Embedded



Product Description

Telit NE modules are based on the mesh network concept in the license-free 868 MHz ISM bands. With adjustable output power from 5 mW to 500 mW NE70-868 modules can reach a range of up to 5000 m in LOS.

Advanced proprietary embedded "Low Power Mesh" stack allows efficient power management on both end nodes and routers. Network latency is defined in the system requirements by setting different synchronous network periods, data rates or message formats, connecting up to 100 end nodes per router in a cluster tree architecture that enables scalability.

The "Low Power Mesh" stack is designed for battery powered sensor networks that can be built automatically and easy to integrate, thus reducing development time and cost for applications in building automation, metering (water, gas, electric), irrigation, tracking, lightning and access control.

Key Benefits

- Best in class characteristics in sensitivity, standby current, TX consumption, range and size
- The NE70-868 is over the air compatible with low power version NE50-868
- Low Power capabilities also valuable for routers and gateways
- No significant limitation in numbers of units and hops in the network
- Auto build and Auto repair functions
- Telit unique Download Over The Air (DOTA) feature

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're 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 one-another, 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



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ONE STOP.
ONE SHOP. NOW, INNOVATE!



●● NE 70-868

Product Features

- Range: Up to 5000 m (Ext antenna)
- Output Power: 7 to 27 dBm
- Serial Data Rate: 19.2 Kbps
- Radio Data Rate: 38.4 Kbps
- Sensitivity (PER < 0.8): -110 dBm

Power Requirements

- Power Supply: 2 to 3.6 V
- Board Consumption at 500 mW:
Rx: < 25 mA
Tx: < 330 mA
Std-by consumption:
external wake-up (interrupt) 1µA
- Mesh features
 - Ultra low power end point
 - Up to 10 hops on the network
 - Up to 10 000 device in the network
 - Cluster tree
 - Auto-association
 - Auto-repair
 - Configurable network period and synchronous part

Environmental

- Dimensions: 26 x 15 mm, height 3 mm
- Weight 1.7 g
- Temperature: -40°C to +85°C
- up to 128 kB Flash, 4 kB RAM, 2 kB EEPROM
- 32.768 kHz real time clock (RTC), 4 timers
- Configurable output power
- 9 I/O ports max available

Networking

- Frequency: 863 - 870 MHz
(EU: 500mW allowed from 869.4 to 869.65 MHz)
- Channels: 23
(EU: 13 Channels;
India: 10 Channels)
- Modulation: GFSK
- Serial Interface: RS232 TTL
- Hayes Mode
- Download Over-the-Air
- Mesh Network
- I/O Copy
- Listen Before Talk

Optional Features

- NE70 modules are available:
(a) as compact LGA module with RF pads for antenna
(b) with DIP adapter and SMA connector for antenna



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.