

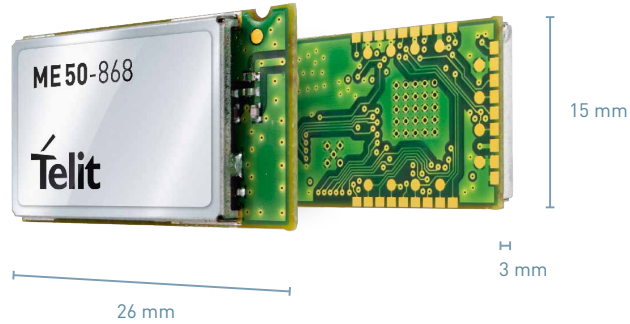
ME50 - 868

LICENCE-FREE SYSTEM

for Frequencies <1 GHz

Wireless M-Bus EN13757

Embedded



Product Description

The Telit ME50-868 is a wireless M-Bus module compliant with the EN13757 part 4 and part 5 Wireless M-Bus standard.

It is ideally suited for use in one or two-way data links with gas, water, heat and electricity meters and concentrators.

The ME50-868 operates in the 868 MHz band with Tx power of up to 25mW. It runs all Wireless M-Bus modes defined by EN13757-4 and EN13757-5 in the 868 MHz band.

Key Benefits

- W M-Bus modes by Telit, leave integrators to work on applications
- Wide area coverage
- Very low consumption for battery powered applications

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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ME50 - 868

Product Features

- Range: Up to 2000 m
- Up to 64kB Flash, 4kB RAM, 2kB EEPROM
- 32.768 kHz real time clock (RTC), 4 timers
- Configurable output power

Networking

- Frequency: 868 - 870 MHz
- Channels: 12 (1 Radio Link A, 1 Radio Link B, 10 Radio Link C)
- Modulation: GFSK
- Hayes Mode
- AES Encryption according to NTA8130/DSMR
- Download Over-the-Air

Optional Features

- ME50-169 module is available with DIP adapter and SMA connector

Data

- Serial Data Rate: Up to 115.2 Kbps
- Radio Data Rate: 4.8, 32.768 or 100 kcps

Environmental

- Rectangular 26 x 15 mm, height 3 mm
- Weight 1.7 g
- Temperature: -40°C to +85°C

Interfaces

- Serial Interface: RS232 TTL (Tx, Rx, Cts, RTS)

Approvals

- Wireless M-Bus:
- CE certified modules
- EN 13757-4 supported S, T, R modes and wake-up on radio
- EN 13757-5:2008 mode R2 and Q
- NTA8130 & DSMR compliant
- OMS compliant

Electrical & Sensitivity

- Output Power: Up to 14 dBm
- Power Supply: 2.0 to 3.6 V
- Board Consumption at 25mW:
 - Rx: 26 mA
 - Tx: 45 mA
- Std-by consumption:
 - external wake-up (interrupt) 1µA
 - cyclic wake-up (internal timer running) < 2µA
- Sensitivity (CER < 10-3): -108 dBm



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