

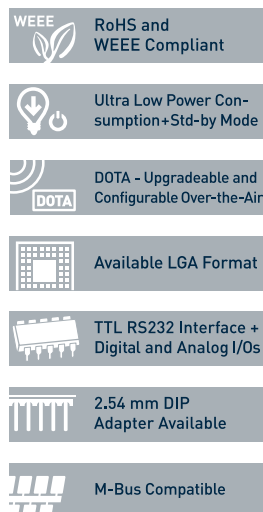
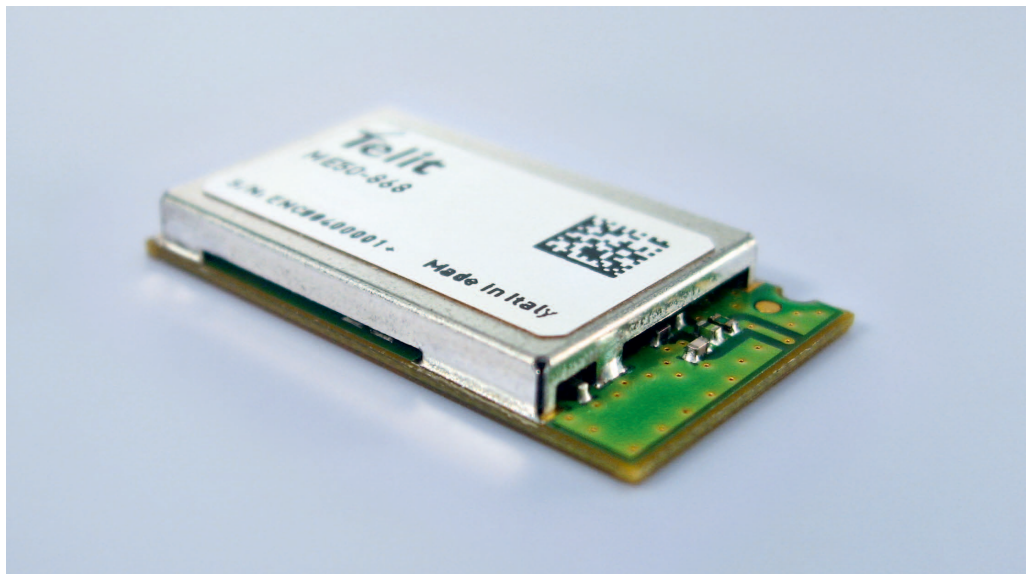
License-Free System
for Frequencies <1 GHz

Wireless M-Bus EN13757

Embedded

ME50-868
RF modules

100 Kcps - 25 mW



Telit ME50-868 modules are the latest generation of Wireless M-Bus products compliant with EN13757 part 4 and part 5 Wireless M-Bus standard optimized for one- or two-way data exchange with gas, water, heat and electricity meters and concentrators.

ME50-868 modules operate in 868MHz band with ultra-low-power for maximum battery life and have the best budget link on the market of 122dB.

Available in LGA format, these pre-certified RF modules provide a TTL RS232 interface, integrated digital and analog I/Os and can easily be integrated into a system, thus reducing development time and cost.

ME50-868 is also pin-to-pin compatible with Telit ZE Family (ZigBee 2007 and PRO stack), NE Family (Mesh low power) and LE Family (basic point to point, broadcast stack).

Performance

- Range: Up to 2000 m
- Output Power: Up to 14 dBm
- Serial Data Rate: Up to 115.2 Kbps
- Radio Data Rate: 4.8, 32.768 or 100 kcps
- Sensitivity (CER < 10⁻³): -108 dBm

Power Requirements

- 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) 3μA

Product Features

- Rectangular 26 x 15 mm, height 3 mm, weight 1.7 g
- Temperature: -40°C to +85°C
- up to 64kB Flash, 4kB RAM, 2kB EEPROM
- 32.768 kHz real time clock (RTC), 4 timers
- Configurable output power

Wireless M-Bus:

- 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

Networking

- Frequency: 868 - 870 MHz
- Channels: 12 (1 Radio Link A, 1 Radio Link B, 10 Radio Link C)
- Modulation: GFSK
- Serial Interface: RS232 TTL (Tx, Rx, Cts, RTS)
- Hayes Mode: Yes
- AES Encryption according to NTA8130/DSMR: Yes
- Download Over-the-Air: Yes

Order-No.

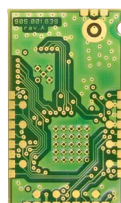
Please contact your Telit representative for order codes and further information.



Making machines talk.®



(a)



(a)



(a)

actual size

Optional Features

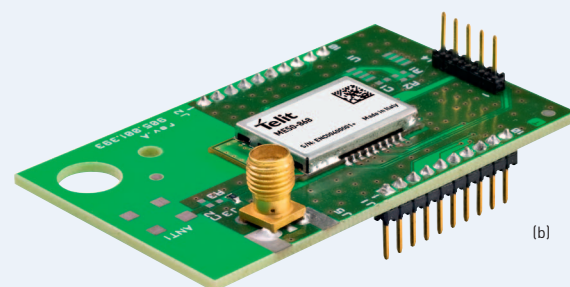
- ME50-868 RF modules are available:
 - (a) without integrated antenna
 - (b) in DIP version

License-Free System for Frequencies <1 GHz

Compact

ME50 - 868 RF modules-Interface

100 Kcps - 25 mW



(b)



Demo Kit & Development Tools

Demo kits with development tools are available for testing and to assist with integration into the final application.



Complementary Gateway solution GG863-SR that integrates Short Range and GSM/GPRS capabilities with ARM9 - Linux OS core. GG863-SR can extend the wireless M-Bus network range, establishing a direct connection between the IP host and gaining full control of the Short Range Network over IP.

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