

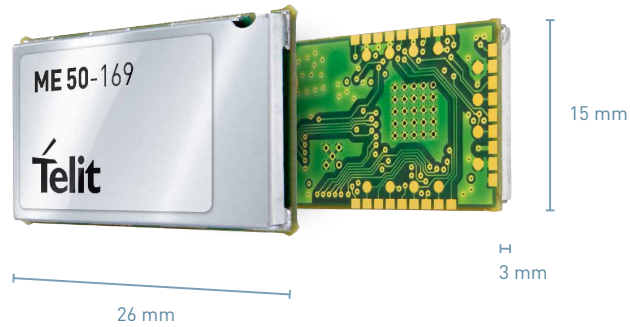
ME50-169

LICENCE-FREE SYSTEM

for Frequencies <1 GHz

Wireless M-Bus EN13757

Embedded



Product Description

The Telit ME50-169 is a wireless M-Bus module compliant with the EN13757 part 4 standard. It is ideally suited for use in one or two-way data links with gas, water, heat and electricity meters and concentrators.

The ME50-169 operates in the 169 MHz band and runs Wireless M-Bus N mode protocol, defined by EN13757-4 2012 for this band, on Tx power of up to 35 mW.

- Telit-developed Wireless M-Bus stacks
- Very low power consumption
- Custom development and integration
- Pre-certified RF modules, LGA xE Form Factor, TTL RS232 interface
- Excellent RX sensitivity
- Download Over The Air (DOTA)
- Industrial temperature range

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 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



www.telit.com

ME50-169

Product Features

- Range: Up to 5000 m
- Up to 128 kB Flash, 8 kB RAM, 2 kB EEPROM
- 32.768 kHz real time clock (RTC), 4 timers
- Configurable output power

Networking

- Frequency: 169.400 -169.475 MHz
- Channels: 7 [6 channels 12,5 kHz bandwidth
2,4 kbps FSK or 4,8 kbps GMSK;
1 channel 50 kHz bandwidth,
19,2 kbps. 4 GFSK]
- Modulation: GFSK, GMSK, 4GFSK
- Hayes Mode
- Encryption AES and NRZ
- 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: 2.4, 4.8 and 19.2 kbps

Environmental

- LGA mount technology, 30 pads
RF pads for antenna
- 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

- EN13757-4 supported N mode
- CE certified module

Electrical & Sensitivity

- Output Power: 35 mW
- Power Supply: 2.0 to 3.6 V
- Board Consumption:
 - Tx: 64 mA
 - Rx: 33 mA
 - Sleep: 1uA (external wake up, interrupt)
 - Stand by: 2 µA (32.768 khz On)
- Sensitivity (BER <10⁻²): -120 dBm @ 2.4 kbps



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.