

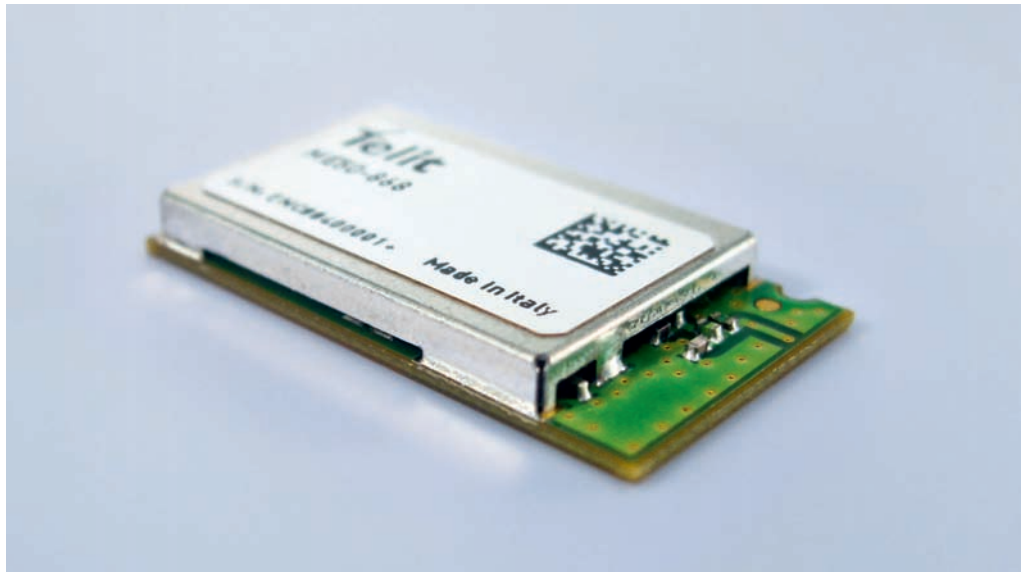
**License-Free System**  
for Frequencies <1 GHz








**Wireless M-Bus EN13757**

**Embedded**

**ME50-868**  
RF modules

100 Kcps - 25 mW



-  **RoHS and WEEE Compliant**
-  **Ultra Low Power Consumption+Std-by Mode**
-  **DOTA - Upgradeable and Configurable Over-the-Air**
-  **Available LGA Format**
-  **TTL RS232 Interface + Digital and Analog I/Os**
-  **2.54 mm DIP Adapter Available**
-  **M-Bus Compatible**

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 <math>10^{-3}</math>): -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 1.7g
- 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.





(a)

**Optional Features**

- ME50-868 RF modules are available:
  - without integrated antenna
  - in DIP version



(a)



(a)

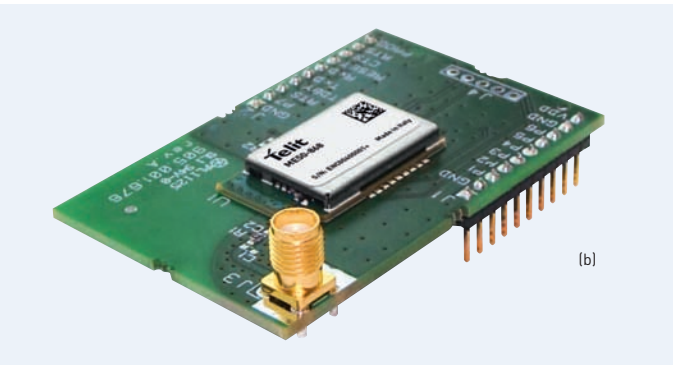
actual size

**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.

Copyright © 2012, Telit  
Subject to changes in technology,  
design and availability  
© Anne AKTAN - Fotolia.com

Distributed by:



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.



Telit RF Technologies  
Rue Evariste Galois  
Emerald Square - Bâtiment D  
06410 Sophia-Antipolis, France  
Tel +33(0)497213310  
Fax +33(0)497213311  
Email: EMEA@telit.com

Telit Wireless Solutions Inc.  
3131 RDU Center Drive, Suite 135  
Morrisville, NC 27560, USA  
Tel +1 888 846 9773 or +1 919 439 7977  
Fax +1 888 846 9774 or +1 919 840 0337  
E-Mail: NORTHAMERICA@telit.com

Telit Wireless Solutions Inc.  
Rua Cunha Gago, 700 - cj 81, Pinheiros  
São Paulo - SP, 05421001, Brazil  
Tel +55 11 3031 5051  
Fax +55 11 3031 5051  
E-Mail: LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd.  
12th Fl., Shinyoung Securities Bld.  
34-12, Yeouido-dong, Yeongdeungpo-gu  
Seoul, 150-884, Korea  
Tel. +82 2 368 4600  
Fax +82 2 368 4606  
E-Mail: APAC@telit.com

[www.telit.com](http://www.telit.com)  
[www.telit.com/ebook](http://www.telit.com/ebook)  
[www.telit.com/techforum](http://www.telit.com/techforum)  
[www.telit.com/facebook](http://www.telit.com/facebook)  
[www.telit.com/twitter](http://www.telit.com/twitter)

