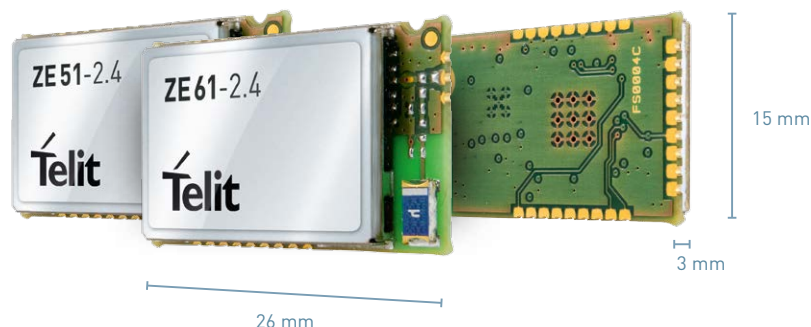


ZE 51 / ZE 61-2.4

IEEE 802.15.4 | ZigBee[®] Embedded



Product Description

The ZE51-2.4 and ZE61-2.4 modules operate in the 2.4 GHz ISM license free frequency bands with TX Power up to 2.5 mW (ZE51) and 100 mW (ZE61). ZE modules run the ZigBee[®] communication protocol (based on the IEEE 802.15.4 standard) widely adopted in a range of markets such as home automation and control, building automation, AMR, and telecom applications

- Certified RF modules, LGA xE Form Factor, TTL RS232 interface
- Telit developed ZigBee PRO protocol (ZigBee Certified) and Telit Demo profile
- Telit developed Smart Energy 1.1 (IHD&ESI certified) and Home Automation profiles
- Very low power consumption
- Custom development and integration
- Excellent RX sensitivity
- Download Over The Air (DOTA)
- Industrial temperature range

Key Benefits

- Application profiles for ZigBee Pro developed by Telit, integrators can focus on the application
- Wide (ZE51) or and very wide (ZE61) area coverage
- Low consumption for battery powered applications
- Select from low-power (ZE51-2.4) and high-power (ZE61-2.4) solutions with a single design

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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●● ZE51 / ZE61-2.4

Product features

- Performance ZE51
Range: Up to 1 km (Ext antenna, LOS)
- Performance ZE61
Range: Up to 4 km (Ext antenna, LOS)
- 256 kB Flash memory, 8 kB SRAM, 8 kB EEPROM for non-volatile application data storage
- 32.768 kHz real time clock (RTC), 4 timers
- Configurable output power

Networking

- Frequency: 2400 - 2483.5 MHz
- Channels: 16
- Modulation: QPSK
- Technology: DSSS
- Hayes Mode
- Download Over-the-Air

Optional Features

- ZE51-2.4 and ZE61-2.4 modules are available:
 - (a) as a compact SMD component with integrated antenna
 - (b) as a compact SMD component without integrated antenna
 - (c) in DIP version with integrated antenna
 - (d) in DIP version with SMA connector for external antenna
 - (e) as a USB dongle (only ZE51-2.4)

Data

ZE51-2.4

- Serial Data Rate: Up to 115.2 Kbps
- Radio Data Rate: 250 Kbps

ZE61-2.4

- Serial Data Rate: Up to 115.2 Kbps
- Radio Data Rate: 250 Kbps

Environmental

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

Interfaces

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

Approvals

- Zigbee certified
Telit Zigbee PRO Stack: Yes
- ZigBee Profiles
 - Smart Energy 1.1 (IHD & ESI) ZigBee Certified
 - Home Automation
 - Telit Demo Profile
- CE certified
- FCC/IC certified
- Anatel certified.
- Compliant with ARIB STD66 (Japan)

Electrical & Sensitivity

ZE51-2.4

- Output Power: 2.5 mW, 4 dBm (ZE51)
- Power Supply: 2 to 3.6 V
- Board Consumption:
 - Rx: 26 mA
 - Tx: 35 mA
- Std-by: 2 µA
- Sleep: 1 µA
- Sensitivity (PER=1%): -97 dBm (ZE51)

ZE61-2.4

- Output Power: Up to 100 mW, 20 dBm (ZE61)
- Power Supply: 2 to 3.6 V
- Board Consumption:
 - Rx: 31 mA
 - Tx: 150 mA
- Std-by: 2.5 µA
- Sleep: 1.5 µA
- Sensitivity (PER=1%): -100 dBm (ZE61)



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.