Product Datasheet

edgeRX

Lynq Sensor Node

Version 1.1

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1. Overview

The TDK edgeRX Lynq sensor node delivers robust environmental sensing capabilities, enabling continuous monitoring of temperature and vibration. Collected data is transmitted via Bluetooth Low Energy (BLE) for predictive maintenance analytics and real-time condition monitoring.

Figure 1 edgeRX Sensor

2. Features

- Multi-sensing, including temperature and vibration
- Battery life of up to three years
- BLE 5.0 communication supported
- Small dimensions of Φ26.5*63mm, weight of 52g
- IP rating: IP67
- Easy adjustment of sensor orientation with flexible installation options

3. Applications

- Lithium Battery Manufacturing, Semiconductor Manufacturing, Precision Machining, Ports, Warehouse, Iron and Steel, Electric Power, Natural Gas, Oil, Smart Building

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4. Technical Specification

Item	Specification
Acceleration range	• ±2, ±4, ±8 and ±16g
Frequency range	• 0.5Hz to 4KHz for X and Y axis, • 0.5Hz to 1.7KHz for Z axis
Current consumption	• 1mA for working, 10uA for sleep mode
Voltage excitation	• 3V
Communication	• BLE 5.0 supported
Flash Storage	• 64Mbit QSPI flash for local data storage
LED	• Triple color LED indicator: Red LED: Factory reset Blue LED: Blink during BLE pairing Green LED: Blink during BLE connection
Button	• Long press more than 5 seconds for factory reset • Short press for BLE pairing • Internal battery power on/off switch
Power supply	• 1000mAh Li battery (replaceable) • Battery life: 3 years (with conditions)
Certification	• FCC, CE, TELEC, SRRC
IP rating	• IP67
Mounting	• Screw mounting: M6 • Glue mounting
Operating temperature	• -40~85℃
Temperature sensitivity	• 1℃
Dimension / Weight	• 63.0mm(Height) x 26.5mm(Diameter) / 52g

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4. Technical Specification

Item	Specification
MCU	• Nordic nRF5340
Accelerometer	• IIM42652
Temperature sensor	• SHTC3
Communication	• BLE 5.0 supported
Flash	• 64Mbit QSPI flash for local data storage
LED	• Triple color LED indicator: Red LED: Factory reset Blue LED: Blink during BLE pairing Green LED: Blink during BLE connection
Button	• Long press more than 5 seconds for factory reset • Short press for BLE pairing • Internal battery power on/off switch
Power supply	• 1000mAh Li battery (replaceable) • Battery life: 3 years (with conditions)
Certification	• FCC for North America • CE for Europe • SRRC for China • Telec for Japan
IP rating	• IP67
Mounting	• Screw mounting • Glue mounting
Operating temperature	• -40~85℃
Dimension / Weight	• 63.0mm(Height) x 26.5mm(Diameter) / 52g

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5. Mechanical Specification

All measurements are listed in millimeters unless noted otherwise.

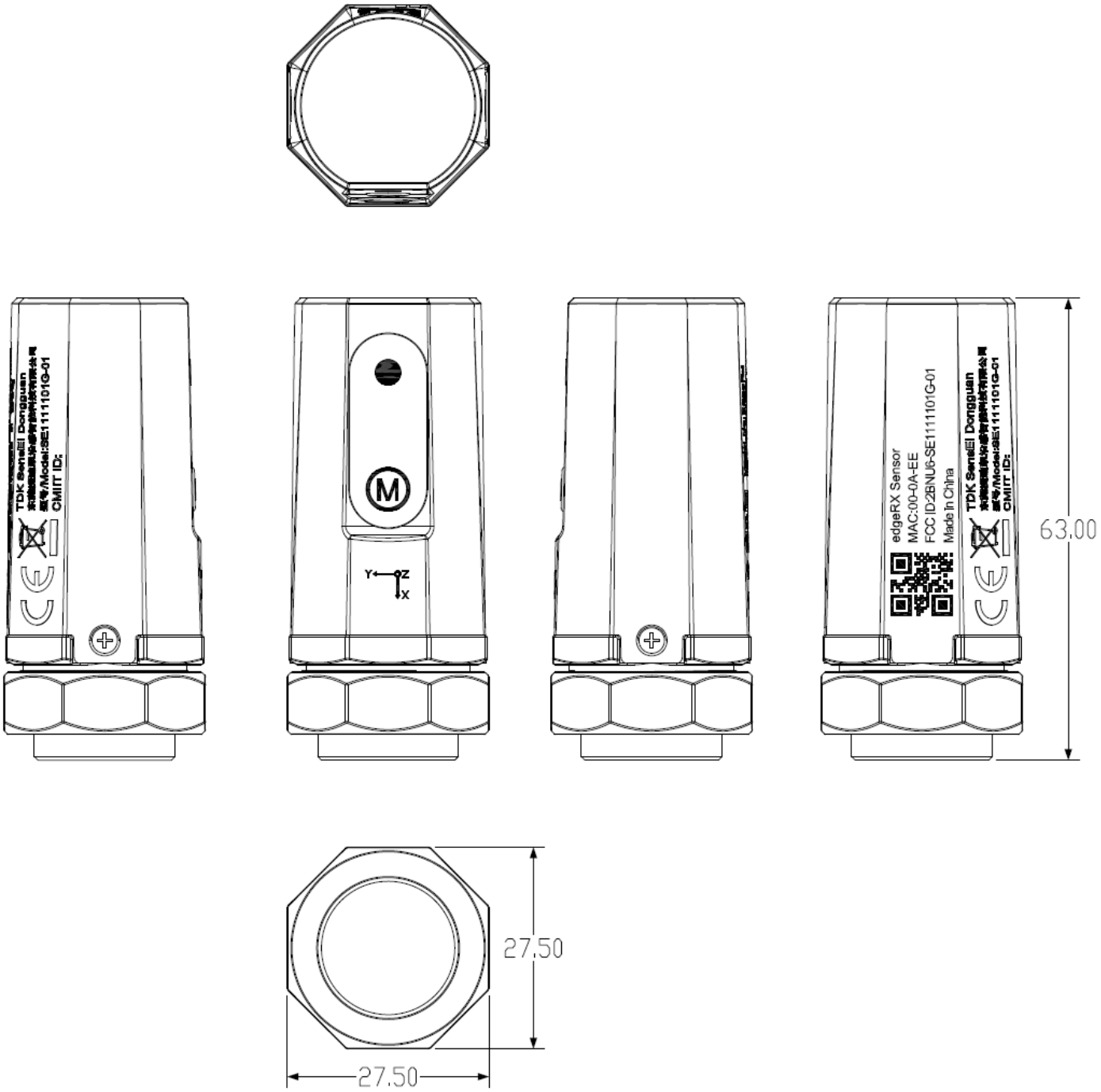

Figure 2 Dimension of CBM edgeRX Sensor

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6. FCC Statement

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

7. Warning

Do not disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion; Do not leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas
Do not expose the battery to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas

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8. Accessory Requirements

Only accessories approved by the equipment manufacturer and compatible with this model may be used. Using other types of accessories may violate the warranty terms of this equipment and the relevant regulations of the country where the equipment is located, and could result in safety incidents. To obtain approved accessories, please contact an authorized service center.

9. Environmental Protection

Do not dispose of this equipment and its accessories as ordinary household waste. Please comply with local regulations regarding the disposal of this equipment and its accessories, and support recycling efforts.

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