



Overview

The LIO52 is a powerful, highly flexible, ultra-low power Bluetooth Smart module based on the nRF52832 SoC from Nordic Semiconductor. With an ARM® Cortex™ M4F CPU, embedded 2.4GHz transceiver, and integrated antenna, it provides a complete RF solution with no additional RF design. Its small form factor makes it easy to integrate in any hardware design reducing development costs. Powered by the LINKIO BLE MESH software, the module is ready to be integrated in smart home appliances and is directly controllable by a smartphone. The MESH feature enhances the module capability to be part of a large and self-organized network of devices.



Key features

- Complete Bluetooth 4.2 Low Energy solution – Bluetooth 5 ready
- Powerful and Ultra Low Power ARM® Cortex™ M4F CPU with 512kB flash and 64kB RAM
- Highly flexible 20 GPIO with digital and analog peripheral set available
- NFC-A tag interface for OOB pairing
- PCB integrated antenna
- Encrypted Over-the-Air updates (OTA DFU)
- Bluetooth End Product qualified, CE compliant
- Complete BLE stack available, enhanced with LINKIO Mesh Network software

Quick specifications

- Power supply: 1,7V – 3,6 with DC/DC regulator
- Tx Power: +4dBm @ 7.5mA
- Rx sensitivity: -96dBm @5.4mA
- Power consumption: 0.3µA – 2µA (system off)
- Memory: 512kB Flash & 64kB RAM
- Integrated 32MHz crystal oscillator
- Optional 32.768kHz external clock
- 20 General Purpose I/O Pins
- Interfaces: SPI / UART / I2C / I2S / NFC / ADC / PWM
- Dimensions: 21.1 x 12.7 x 2.7mm
- Operating Temperature: -40°C to 85°C

Applications

- Internet of Things
- Home Automation
- Lighting
- Connected Appliances
- Remote controls
- Low Power Sensor Network
- Interactive Entertainment Devices