

Product Brief

Type 2NR Bluetooth® LE Module

Bluetooth® LE 6 / IEEE 802.15.4 IoT Module

Ultra-Low Power, Ultra-Small, Highly Integrated

Description

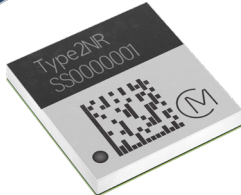
The Type 2NR is an ultra-small, highly integrated wireless module based on the Nordic nRF54L15 SoC. It supports Bluetooth Low Energy 6.0, IEEE 802.15.4, NFC-A tag, and Matter over Thread. Measuring just 7.4 mm x 7.0 mm, it offers a space-efficient solution for engineers designing IoT devices that require reliable, low-power, connectivity in a small form factor.

Features

- Nordic nRF54L15 SoC inside
- Bluetooth 6.0 Class 1; IEEE802.15.4; 2.4 GHz Nordic proprietary modes; NFC-A Tag
- Bluetooth LE, Thread, Zigbee, Matter over Thread; Bluetooth Channel Sounding
- 128MHz ARM® Cortex®-M33 with 256 KB RAM, 1524 KB RRAM
- +8 dBm Max TX power; -95 dBm RX Sensitivity @ 1Mbps
- 5.0 mA TX @ 0 dBm / 3.0 V; 3.7 mA RX @ 1 Mbps/ 3.0 V; 1.2 uA Sleep @ 3.0 V
- Built-in advanced security including TrustZone® isolation, tamper detection, and cryptographic engine side-channel leakage protection. PSA Certified Level 3
- 32 GPIOs, GRTC, UART, SPI, I²C, PWM, I²S, ADC, PDM, NFC, QDEC, SWD, JTAG
- Onboard pattern antenna or optional external antenna
- Regulatory Certification FCC/ISED/ETSI/MIC
- RoHS compliant

Benefits

- Ultra-small size
- High integration level – built-in MCU, antenna, less components required on host board
- Support multiple radio technology
- Designed for PSA Certified Level 3 security
- Low power consumption



Product Name	Type 2NR
Wireless SoC	Nordic nRF54L15
Wireless Technologies	Bluetooth 6.0; IEEE802.15.4; 2.4 GHz proprietary modes; NFC-A Tag
Muti-protocol support	Bluetooth Channel Sounding, Thread, Zigbee, Matter over Thread
Built-in MCU	128 MHz ARM Cortex-M33 with 256 KB RAM, 1524 KB RRAM
RF	+8 dBm Max TX power; -95 dBm RX Sensitivity @ 1Mbps
Power Consumption	5.0 mA TX @ 0 dBm / 3.0 V; 3.7 mA RX @ 1 Mbps / 3.0 V; 1.2 uA Sleep @ 3.0 V
Advanced Security	TrustZone® isolation, tamper detection, and cryptographic engine side-channel leakage protection. PSA Certified Level 3
Peripherals	32 GPIOs, GRTC, UART, SPI, I2C, PWM, I2S, ADC, PDM, QDEC, SWD
Antenna	Onboard pattern antenna with external antenna option. Optional external NFC antenna
Voltage Supply	1.7-3.4 V
Dimensions	7.4mm (Typ.) x 7.0mm (Typ.) x 1.4mm (Max.)
Package type	LGA
EMI shielding	Resin shield molding
Operating temperature	-40 to 105 °C
Regulatory Certification	FCC/ISED/ETSI/MIC
Bluetooth® QDID	Q370633