

LPWA LGA Module

DLSA-WI13-WW

Key Features

- LTE Cat.M/NB-IoT Release 14
- Flexible GNSS: concurrent, intermittent, or no-GNSS options available
- Supports SRD in Sub-GHz bands, such as Wi-SUN and U-Bus Air
- Supports 2.4 GHz Wi-Fi scanning/positioning
- Surface mount type (Size: 20.3mm x 16.0mm x 2.3mm)
- Operating voltage: 2.5–4.4 V (typical 3.8 V).

Dual-mode, power-optimized LTE-M & NB-IoT module for IoT applications

The DLSA-WI13-WW is WNC's second-generation cost-effective LPWA LGA module, designed for diverse IoT applications. Featuring a compact and highly integrated architecture, the module offers flexible GNSS options—concurrent, intermittent, or no-GNSS—to meet various use-case requirements and accelerate time-to-market. It also supports PSRAM expansion, enabling scalable storage and memory configurations to enhance system performance and design flexibility.

Product Specifications

LTE Modem

- LTE Cat. M & supported Bands:
 - ✓ Low-Band: B5, B8, B12, B13, B14, B18, B19, B20, B26, B27, B28
 - ✓ Mid-Band: B1, B2, B3, B4, B25, B66
- NB-IoT & supported Bands:
 - ✓ Low-Band: B5, B8, B12, B13, B14, B17, B18, B19, B20, B26, B28, B85
 - ✓ Mid-Band: B1, B2, B3, B4, B25, B66
- Support uSIM and iSIM (Q3,2026)

Throughput

- Cat M1: up to 588 Kbps in downlink, and 1119 Kbps in uplink(R14)⁽¹⁾
- Cat NB2: up to 127 kbps downlink and 158 kbps uplink(R14)⁽¹⁾

Location Capabilities

- GNSS concurrent / intermittent modes⁽²⁾
- Wi-Fi scan / positioning
- Cellular positioning

Intermittent GNSS

- L1 band & supports GPS and GLONASS
- Support shared or dedicated GNSS antenna

Concurrent GNSS

- Multi-Constellation: GPS / GLO / GAL / BD / QZSS / NavIC
- Dual-band, multi-constellation GNSS receiver support GNSS L1 & L5

Interfaces

- LTE RF pad & GNSS RF pad
- JTAG
- I2C(master or slave)
- SPI⁽³⁾
- PCM / I2S audio
- ADC
- UART(MCU / SHUB / SRM)
- USIM / eUICC
- MIPI RFFE
- GPIOs
- PSRAM extension ports

MCU

- Arm® Cortex®-M4 integrated MCU for edge processing
- Flash: 64 Mbit.
- PSRAM: Capable of controlling one PSRAM memory of up to 32MB.

Highlight Features

- Ultra-low power consumption: 10 µA at eDRX (81.92s), 1 µA at PSM
- Supports SRD (Short Range Device) communication in Sub-GHz bands, such as Wi-SUN and U-Bus Air
- Supports 2.4 GHz Wi-Fi positioning

Environmental

- Operating temperature: -40 °C to 85 °C

Note:

(1) LTE Cat.M/NB-IoT Release 15-17 features will be enabled through software upgrade

(2) Customers can choose concurrent, intermittent, or no-GNSS version based on requirements

(3) Available in no-GNSS version

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