

Smart 4G LTE Module w/GPS

The Radair™ Smart 4G LTE-M NB-IOT



Communication Module w/GPS is a commercial grade, low-power wide area network (LPWAN) cellular communication module. This is the perfect application for always-on, low-power connectivity, independent of ethernet or Wi-Fi, as a failsafe option. Purposefully designed for IoT connected devices where affordability and reliability are paramount, the Radair Smart 4G LTE- M NB-IOT Communication Module w/GPS can be deployed at scale in urban or remote locations where reliable internet and power might not be available.

Specifications

- Model: Radair 901 4G LTE-M NB-IOT Communication Module w/GPS
- Processor: ARM Cortex M33 Processor, ARM Trustzone, ARM Cryptocell 310
- RAM: 256KB LLRAM
- Storage: 1MB Flash Memory
- Power:
 - 3.8 to 5V DC Input
 - 535mA-pk, 1.4uA-Sleep
 - o 101mA-Core
 - GPS 47~1.3mA; 9mA GPS/LNA (selectable)
 - Modem RX 45mA, TX 60~380mA (23dbm)
- LEDs (4):
 - Power
 - 4G/LTE Network Status
 - 4G/LTE Traffic
 - o GPS Satellite Lock
- SIM: nSIM (standard) eSIM (optional)
- Debugg
 - o Serial Wire Debug (SWD) Trace Port
 - J-Tag Port

Modem:

2.25 in.

- Responds to Nordic's "AT" Command Set over UART-0
- Cat-M1: B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28, B66

• Antenna:

- 1 u.FL Connector for GPS at 50 ohms
- o 1 u.FL Connector for 4G at 50 ohms
- 4G/LTE, On-Board Antenna (Optional)

Ports:

- 4 SPI
- o 4 I2C
- 4 UART
- 1 Digital Microphone PDM
- 4 PWM, 32 GPIO, 12Bit ADC
- o 3 32Bit Timers
- o 2 RTC
- Interface: M.2 67 (M-key) Female Connector

Operation requires LTE and GPS antenna alongside nSIM card, sold seperately, options at Radair.io

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