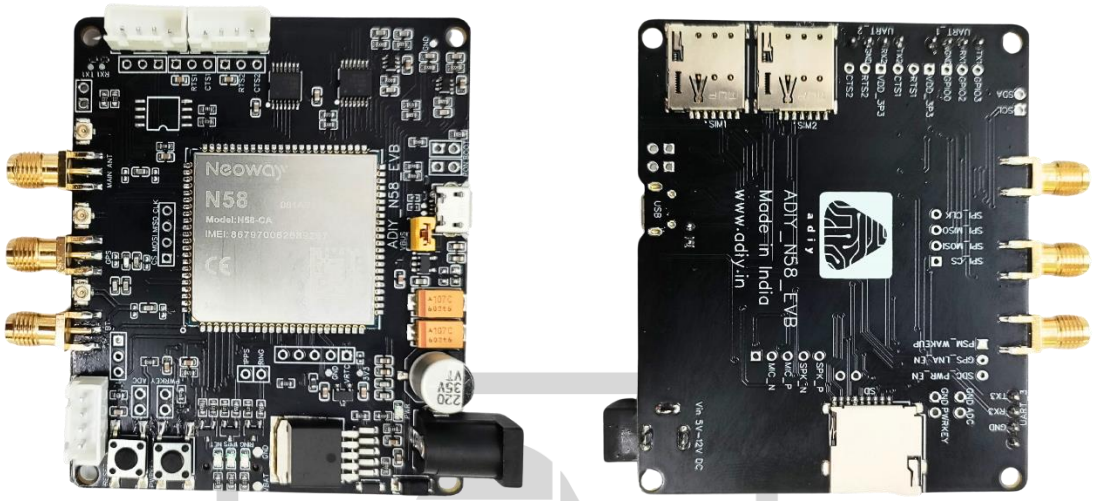
ADIY N58 LTE GNSS Bluetooth Evaluation Board



Description:

Neoway N58 is ideal solution for M2M and IoT applications N58 is an industrial LTE module that is developed based on the UNISOC UIS8910DM platform. This module supports GSM, FDD-LTE (Cat 1), and TDD-LTE (Cat 1) network modes. It provides a variety of hardware interfaces, supports audio and video functions, Wi-Fi positioning, BT/BLE, and GNSS (optional), suitable for developing IoT communications devices such as wireless meter reading terminal, in-vehicle device, potable POS device and industrial router.

This module has excellent RF performance, and it supports low power consumption and ultra-wide operating temperature range. N58 integrates various network protocols and provides industry-standard interfaces. With abundant functionalities and USB serial drivers for Windows 7/8/8.1/10, Linux, and Android, N58 is an optimal option for energy metering, telematics, industrial router, industrial PAD, video surveillance, environmental monitoring, etc.

Main Features:

- ARM Cortex-A5 processor, 500 MHz CPU clock speed, 32 KB L1 cache
- Supported network modes: GSM/GPRS&LTE Cat 1
- Supports USB2.0/USIM/ADC/UART/SDIO/SPI/I2C/GNSS (optional)

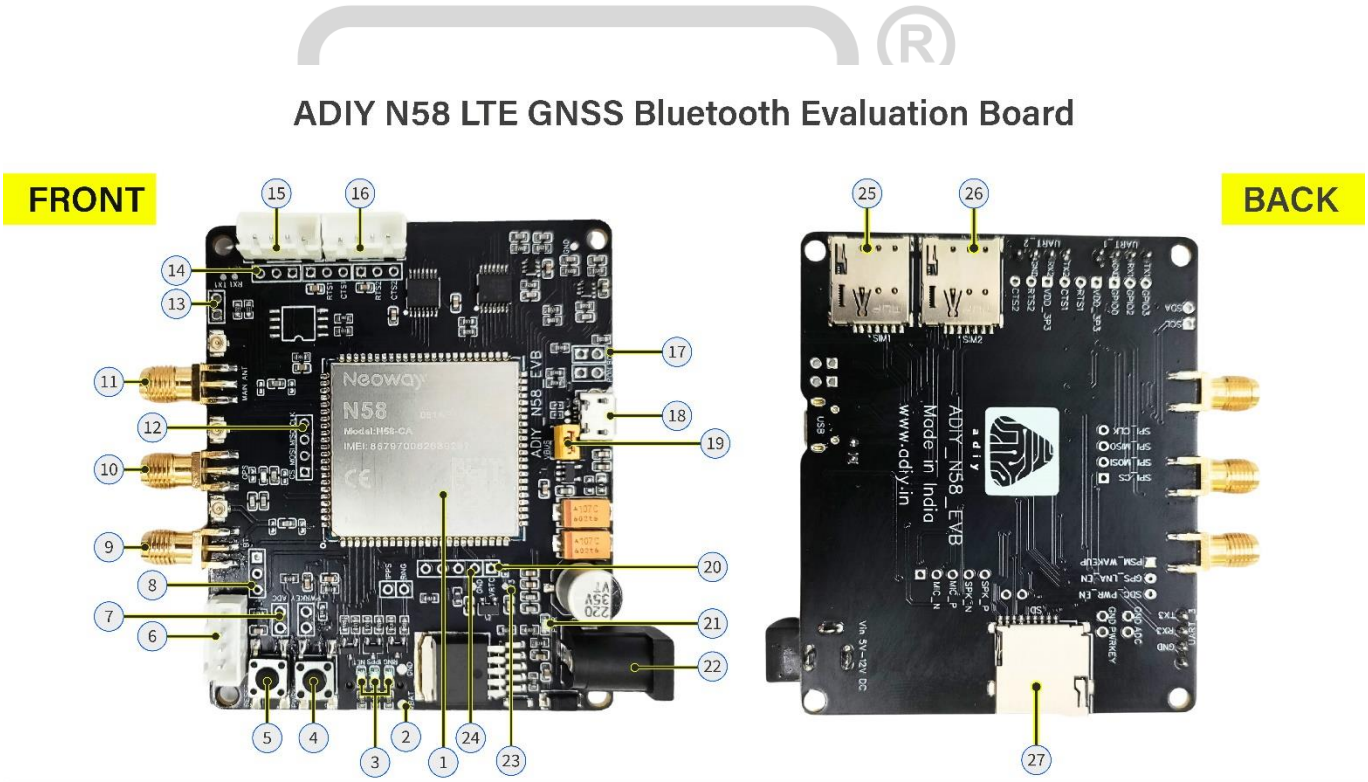
Basic Features:

- Supports USB2.0/USIM/ADC/UART/SDIO/SPI/I2C/GNSS (optional)
- Operating voltage VBAT: 3.4 V to 4.2 V, typical value: 3.8 V
- Operating current
  - Sleep mode2): < 3 mA
  - Idle mode3): < 16 mA
  - Operating mode4) (LTE mode): < 600 mA
- Application processor ARM Cortex-A5 processor, 500 MHz main frequency, 32 KB L1 cache
- Memory
  - RAM: 128 Mb
  - ROM: 64 Mb
- Wireless rate
  - GPRS: Max 85.6 kbps (DL)/Max 85.6 kbps (UL)
  - FDD-LTE: Cat 1, Max 10 Mbps (DL)/Max 5 Mbps (UL)
  - TDD-LTE: Cat 1, Max 8 Mbps (DL)/Max 2 Mbps (UL)
- Data rate
  - LTE: CAT1, Max. 10Mbit/s (DL)/Max. 5Mbit/s(UL)
  - GPRS: Max. 85.6 Kbit/s(DL) / Max. 85.6 Kbit/s(UL)
- Application interface
  - 2G/4G antenna, GNSS antenna, BT antenna. The characteristic impedance of each antenna is 50 Ω.
  - Three UART interfaces,
  - One USB2.0 high-speed interface
  - One SPI interfaces.
  - Four GPIOs with interrupt
  - One 10-bit ADC interface, detectable voltage ranging
  - One SDIO interface, used for an SD card.
  - One 1PPS interface.

  - One I2C interface, supporting only the master mode.
  - One audio input and one audio output
  - Dual-USIM-single-standby (Optional)
  - Firmware Over-the-Air (FOTA)
  - Vo-LTE
  - MCU software OTA*
  - Bluetooth 4.2 / BLE Wi-Fi SCAN
  - Open CPU
- AT command
  - 3GPP Release 13
  - Neoway extended commands
- SMS (PDU, TXT)
- Data (PPP, RNDIS, ECM)
- Network Protocols (TCP, UDP, MQTT, FTP, HTTP/HTTPS, SSL, TLS)
- USB drivers
  - Windows 7/8/8.1/10
  - Linux 2.6~4.4
  - Android 4.x/5.x/6.x/7.x/8.x
- RIL Driver (Android 4.x/5.x/6.x/7.x/8.x)

GNSS Features:

- Receiving Bands:
  - GPS L1 C/A: 1574.397MHz -1576.443MHz
  - BDS B1 C/A: 1559.052MHz -1563.144MHz
- Receiver type
  - 32 tracking / 32 acquisition-channel
  - GNSS receiver
- Accuracy position: <3m (CEP50)

- Data update rate 1 to 10Hz,Typ: 1Hz
- Sensitivity (Typical)
  - Tracking: -160dbm
  - Reacquisition: -154dbm
  - Colding: -146dbm

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