

# ADIY N58 LTE GNSS Breakout 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.

### **General features:**

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



### **Basic features:**

- Operating voltage VBAT: 3.4 V to 4.3 V, typical value: 3.8 V
- Operating current
  - a) Sleep mode2): < 3 mA
  - b) Idle mode3): < 16 mA
  - c) Operating mode4) (LTE mode): < 600 mA
- Application processor ARM Cortex-A5 processor, 500 MHz main frequency, 32 KB L1 cache
- Memory
  - a) RAM: 128 Mb
  - b) ROM: 64 Mb
- Wireless rate
  - a) GPRS: Max 85.6 kbps (DL)/Max 85.6 kbps (UL)
  - b) FDD-LTE: Cat 1, Max 10 Mbps (DL)/Max 5 Mbps (UL)
  - c) TDD-LTE: Cat 1, Max 8 Mbps (DL)/Max 2 Mbps (UL)
- Data rate
  - a) LTE: CAT1, Max. 10Mbit/s (DL)/Max. 5Mbit/s(UL)
  - b) GPRS: Max. 85.6 Kbit/s(DL) / Max. 85.6 Kbit/s(UL)
- It supports ESIM (option)
- Application interface
  - a) 2G/4G antenna,
  - b) One logic level UART interfaces,
  - c) One USIM interface, adaptive 1.8 V/3 V.
  - d) One USB2.0 high-speed interface
  - e) One 10-bit ADC interface,
  - f) One audio input and one audio output
  - g) Firmware Over-the-Air (FOTA)
  - h) VoLTE
  - i) MCU software OTA



- j) Open CPU
- AT command
  - a) 3GPP Release 13
  - b) Neoway extended commands
- SMS (PDU, TXT)
- Data (PPP, RNDIS, ECM)
- Network Protocols (TCP, UDP, MQTT, FTP, HTTP/HTTPS, SSL, TLS)

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- USB drivers
  - a) Windows 7/8/8.1/10
  - b) Linux 2.6~4.4
  - c) Android 4.x/5.x/6.x/7.x/8.x
- RIL Driver (Android 4.x/5.x/6.x/7.x/8.x)
- 3 antennas interface
  - a) MAIN\_ANT 2G/4G antenna connector

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- b) GPS\_ANT GPS antenna connector
- c) BT antenna connector



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## **Pin Description:**



#### How to use N58 breakout board:

**Step 1:** Before supplying power, carefully inspect the board's pinouts and component labels. Ensure the SIM card is inserted correctly, and the antenna connections are secure.

**Step 2:** Provide a 3.8V power supply to the VBAT pin of the module. This should automatically power on the module.

**Step 3:** Check the network LED. If LED is ON, the network is available. For more detailed information, refer to the AT commands manual.



Step 4: Connect the board to your computer using a USB cable.

Step 5: If you plan to check communication via UART2, refer to the datasheet for detailed guidance.

