

# NEOWAY N27

## NB-IoT/eMTC/GPRS module



### Key Benefits

- LTE Cat M1/Cat NB2/GPRS module with ultra-low power consumption
- Integrated RAM and flash in baseband chipset
- Support global frequency bands by one BOM
- Rich interfaces, high reliability



### Qualcomm chipset

Qualcomm MDM9205



### Operating temperature

-40°C~+85°C, industrial-grade



### Various network protocols

3GPP protocol stack Release 14 compliant



### LGA package, small size

Reduce product area  
Excellent ESD performance



### Technical support

Reference designs, evaluation kit  
Timely support via emails, calls, and instant messages  
Field support

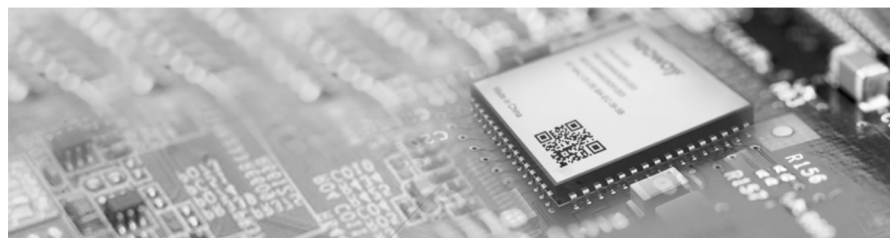
### Product Description

N27 is an NB-IoT/eMTC/GPRS module specially designed for M2M and IoT applications. Adopting the 3GPP Rel. 14 LTE technology, it delivers 588 Kbps downlink and 1119 Kbps uplink data rates.

N27 supports Qualcomm® location Suite Gen9 VT (GPS, GLONASS, BDS, Galileo, and QZSS). The integrated GNSS greatly simplifies product design, and provides quicker, more accurate and more reliable position fix.

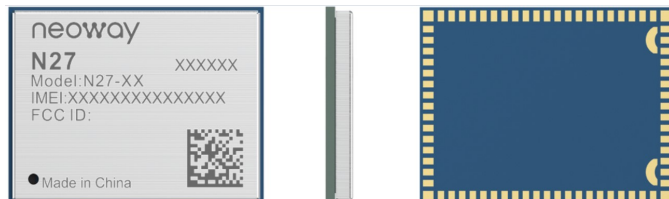
N27 integrates industrial UART interfaces and supports various network protocols, such as CoAP, UDP, TCP, and MQTT.

N27 supports low power consumption and ultra-wide operating temperature range and has excellent RF performance. With various industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 7/8/8.1/10), this module is an optimal option for energy metering, telematics, smart city, tracking and environmental monitoring, and so on.



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### Specifications

N27-W3	Cat M1: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B85 GPRS: 850/900/1800/1900 MHz
N27-W1	Cat M1: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B31, B66, B72, B73, B85 Cat NB1/NB2: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B31, B66, B72, B73, B85 GPRS: 850/900/1800/1900 MHz
N27-WW	Cat M1: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B85 Cat NB1/NB2: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B71, B85 GPRS: 850/900/1800/1900 MHz
OS	ThreadX
Supply voltage	3.1 to 4.3 V (DC), typical: 3.6 V
Output power	23 dbm (class3) or 20 dbm (class5)
Low Power consumption (Typical)	< 4 uA @ PSM < 0.8 mA @ I-DRX=2.56s < 0.25 mA @ e-I-DRX = 81.9s&PTW =2 .56s < 2 mA @ sleep (GPRS)
Operating temperature	-40°C to +85°C
Dimensions	24.0 mm x 18.0 mm x 2.3 mm
Package	LGA 76-pin

### Enhanced Features

- Support 3GPP Release 14 features
- Support modes: stand-alone, in-band, guard-band
- Support CP-CIoT and UP-CIoT
- PCM/I2C interface for VoLTE Function (Optional)
- USIM card detection
- Differential Firmware Over-the-Air
- GNSS: GPS, GLONASS, BDS, Galileo, and QZSS (Optional)

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For more information, please visit [www.neoway.com](http://www.neoway.com).

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### Features

Data rate (Max.)	Cat M1: 588 Kbps/1119 Kbps (DL/UL) Cat NB1: 34 Kbps/66.6 Kbps (DL/UL) Cat NB2: 127 Kbps/158.5 Kbps (DL/UL) GPRS: 85.6 Kbps (DL/UL)
SMS	TEXT/PDU Point to Point/Cell Broadcast
Network protocols	CoAP, UDP, TCP, MQTT, PPP, NTP, FTP, HTTP, HTTPS, DTLS
Firmware upgrade	Via USB or DFOTA
USB Driver	Windows 7/8/8.1/10

### Interfaces

- POWER, ADC
- PWRKEY\_N, WAKEUP\_IN, WAKEUP\_OUT
- USB2.0, UART
- PCM, I2C, SPI
- 1.8V USIM interface
- NET\_LIGHT, STATUS
- Cellular and GNSS antenna interfaces

### Certification Approvals

AT&T, CE, DTAG, FCC, ECO, GCF, IC, PTCRB, MIC, RoHS, ATE\*/TELEC\*, NCC\*, KCC\*, RCM\*, and so on.

\* Indicates in development

