

# NEOWAY N27

## NB-IoT/eMTC/EGPRS module



### Key Benefits

- LTE Cat M1/Cat NB2/EGPRS module with ultra-low power consumption
- Integrated RAM and flash in baseband chipset
- Support global frequency bands by one BOM
- Rich interfaces, high reliability
- Professional reference design, evaluation kits and timely technical support to help customers quickly complete product development



### 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/EGPRS module specially designed for M2M and IoT applications. Adopting the 3GPP Rel. 14 LTE technology, it delivers 1119 Kbps downlink and 588 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.

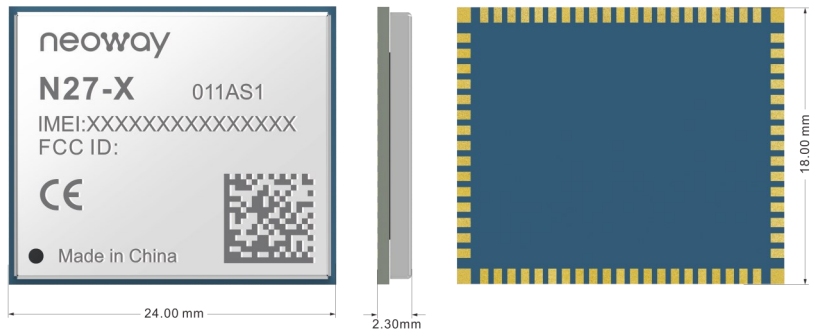
N27 integrates industrial UART interfaces and supports various network protocols, such as CoAP, UDP, TCP, MQTT, etc.

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, Linux, Android), this module is an optimal option for energy metering, telematics, smart city, tracking and environmental monitoring, etc.



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### Specifications

N27-WW (Global)	NB-IoT/eMTC: B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85 EGPRS: B2, B3, B5, B8
N27-W1 (Global)	NB-IoT/eMTC: B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B31, B66, B85 EGPRS: B2, B3, B5, B8
OS	ThreadX or OpenThreadX*
Supply voltage	3.1 to 4.3 V(DC), typ: 3.6V
Output power	23dbm(class3) or 20dbm(class5)
Low Power consumption (Typical)	< 3uA @ PSM < 0.8mA @ I-DRX=2.56s < 0.25mA @ e-I-DRX=81.9s&PTW=2.56s < 2mA @ sleep (EGPRS)
Operating temperature	-40°C to +85°C
Dimensions	24.0mm x 18.0mm x 2.3mm
Package	LGA 76-pin
Weight	Approx. 2.0g
AT commands	3GPP TS 27.007, 27.005 Neoway enhanced AT Commands

### 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
- Diff Firmware Over-the-Air
- GNSS: GPS, GLONASS, BDS, Galileo, and QZSS (Optional)

### Features

Data rate (Max.)	CatM1: 1119Kbps/588Kbps (DL/UL) CatNB1: 34Kbps/66.6Kbps(DL/UL) CatNB2: 127Kbps/158.5Kbps(DL/UL) EGPRS: 236.8Kbps(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 Linux 2.6~4.4 Android 4.x/5.x/6.x/7.x/8.x/9.x

### 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

FCC\*, PTCRB\*, GCF\*, CE-R\*, RoHS\*,  
JATE\*/TELEC\*, NCC\*, KCC\*, RCM\*, etc.

\* indicates in development

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