

NEOWAY N510M

Faster Communications Access Solution for IoT



- 5G cellular module dedicated for IoT
- Support 5G NR SA and NSA networking and support Sub-6G
- Can be used in China, Europe, Southeast Asia, etc.
- Applicable to consumer electronics, smart energy, industrial control, smart transportation, etc.



Chipset

UNISOC IVY510

The N510M series is a 5G cellular module that is designed for IoT dedicatedly. Complying with the 3GPP Rel.15 technology standard, N510M can deliver a data rate of 2Gbps downlink and 1Gbps uplink on average.



Operating Temperature

-20°C to +70°C

As a 5G/4G/3G multimode module, it supports wide range of frequency bands, and has excellent RF performance. It supports sub-6 GHz 5G spectrum and supports both standalone (SA) and non-standalone (NSA) network deployment.



Protocols

RNDIS, NCM, ECM, NTP, IPv4, IPv6

N510M integrates various network protocols and provides industry-standard interfaces. It supports high-speed interfaces such as PCIe and USB3.1 to meet the requirements for ultra-high speed data transmission in eMBB scenario. With drivers for Windows 7/8/8.1/10, Linux, and Android, it facilitates application development. This is an optimal solution for consumer electronics, smart energy, industrial control, smart transportation.



Package

75-pin M.2 package
52.0 mm × 30.0 mm × 3.8 mm

The N510M series can be used in China, Europe, Southeast Asia, and most other regions where 5G networks are deployed. Even in the area without 5G, N510M can work on 4G and 3G networks.



Technical Support

Reference designs, evaluation kits
Timely support via emails, calls, and IM
Field support



N510M 5G NR

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Specifications

Frequency band	5G NR: n1*/n28*/n41/n77/n78/n79 LTE-FDD: B1/B3/B5/B7/B8/ LTE-TDD: B34/B38/B39/B40/B41 UMTS: B1/B2/B5/B8
Supply voltage	3.4 to 4.3 V(DC), Typ.: 3.8V
Operating temperature	-20°C to +70°C
Dimensions	52.0 mm × 30.0 mm × 3.8 mm
Package	75-pin M.2
Processor	Dual-core ARM Cortex-A55 processor, up to 1.35 GHz
Power consumption	TBD
Memory	2Gb Flash
Antenna Qty.	6

Application Interfaces

PCIe Gen 2
USB 2.0/3.1
I2S
UART
USIM(1.8V/3.0V) * 2

Certification Approvals

CCC*, CTA*, SRRC*, CE-R*, RoHS*

Features

5G NR	NR DL: 2Gbps (@100MHz 1CC, 256QAM) NR UL: 1Gbps (@100MHz 1CC, 256QAM)
LTE	DL Cat 12 with 600 Mbps UL Cat 13 with 150 Mbps
WCDMA	DL Cat 24 (64QAM, DC-HSDPA), throughput up to 42.2 Mbps UL Cat 7 (16QAM, HSUPA), throughput up to 11 Mbps
Firmware upgrade	Via USB or FOTA*

Highlight

Support RNDIS and NCM dialup
Support IPv4, IPv6, and IPv4/v6 dual-stack
Support PCIe Gen2 interface
Support USB 2.0/3.1
Support two USIM interfaces
Support FOTA*
Support 5G time synchronization*
Support LBS for assistant position fix*
Support VoLTE/VoNR*
Support RCS-based 5G messaging*
Support at most 8 concurrent network slices*

* In development phase

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For more information, please visit www.neoway.com

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