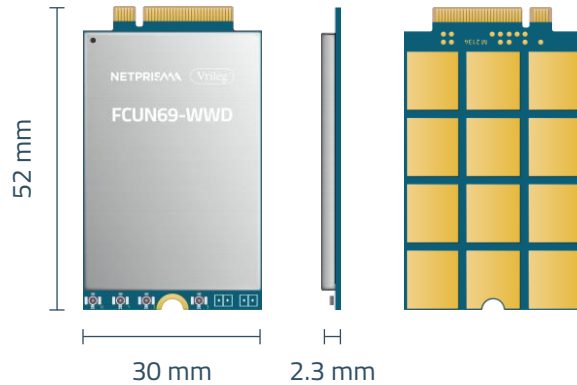


FCUN69-WWD

IoT/eMBB-optimized
5G sub-6 GHz M.2 module



Product features

- > 5G/ 4G/ 3G multi-mode module in M.2 form factor, optimized for IoT and eMBB applications
- > Worldwide 5G and LTE-A coverage
- > Both NSA and SA modes supported
- > Multi-constellation GNSS receiver (optional) available for applications requiring fast and accurate fixes in any environment
- > Feature refinements: DFOTA and VoLTE (optional)

The NetPrisma FCUN69-WWD is a 5G module tailored for IoT and eMBB applications that uses 3GPP Rel-16 technology, it supports both 5G NSA and SA modes and is applicable to a vast array of IoT and eMBB use cases. These include industrial routers, home gateways, STBs, industrial and consumer laptops, industrial PDAs, rugged tablet PCs, video transmission devices and digital signage.

Designed for industrial and commercial use, the FCUN69-WWD meets industrial-grade standards and the global variant offers compatibility with nearly all major carriers across the world.

The NetPrisma FCUN69-WWD offers standard interfaces and USB and PCIe drivers compatible with Windows 7/8/8.1/10, Linux and Android.

5G 5G NR sub-6 bands supported

4G DL: LTE Cat 19
UL: LTE Cat 18

3G DL: max. 42 Mbps
UL: max. 5.76 Mbps

Abundant protocols embedded

M.2 form factor

Multi-constellation GNSS (optional)

USB 3.1/ PCIe 3.0 SuperSpeed interface

Voice over LTE (Optional)

Enhanced AT commands

FCUN69-WWD

Mechanical data

Region/operator	Global
Dimensions (mm)	52.0 × 30.0 × 2.3

Temperature range

Operating temperature	-30 °C to +75 °C
Extended temperature	-40 °C to +85 °C

Frequency bands

5G	NSA: n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79 SA: n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79
LTE	LTE-FDD: B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 66/ 71 LTE-TDD: B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48 LAA: B46
UTMS	WCDMA: B1/ 2/ 4/ 5/ 8/ 19
GNSS (Optional)	GPS/ GLONASS/ BDS/ Galileo/ QZSS

Data transmission ¹

5G SA Sub-6	Max. 2.4 Gbps (DL) / Max. 900 Mbps (UL)
5G NSA Sub-6	Max. 3.4 Gbps (DL) / Max. 550 Mbps (UL)
LTE	Max. 1.6 Gbps (DL) / Max. 200 Mbps (UL)
WCDMA	Max. 42 Mbps (DL) / Max. 5.76 Mbps (UL)

Interfaces

(U)SIM	× 2
USB 2.0	× 1
USB 3.0/3.1	× 1
PCIe 3.0	× 1
Antenna (Sub-6/ GNSS)	× 4

Voice

Voice	VoLTE (Voice over LTE, optional)
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Enhanced features

eSIM ^{dev}	Optional
DTMF ^{dev}	Supported
DFOTA ^{dev}	Supported
(U)SIM card detection	Supported

Certifications

Carrier ^{dev}	Europe: Deutsche Telekom/ Telefonica/ America: Verizon/ AT&T/ T-Mobile South Korea: KT/ LGU+ Japan: NTT DOCOMO/ KDDI/ SoftBank Australia: Telstra
Regulatory ^{dev}	China: CCC Global: GCF Europe: CE North America: PTCRB America: FCC Canada: IC Brazil: Anatel South Korea: KC Taiwan, China: NCC Japan: JATE/TELEC Australia/New Zealand: RCM
Others	RoHS

Electrical features

Supply voltage ² (V)	3.315–4.4, typ. 3.7
Power consumption @ power down	195 µA
Power consumption @ sleep	4.7 mA
Power consumption @ USB 2.0, idle	40 mA
Power consumption @ 3.0, idle	60 mA

¹: The presented data rates are theoretical only, and the actual value depends on network conditions.

²: Please refer to the hardware design manual to see more specific requirements for the power supply voltage.

^{dev}: Under development or in progress.