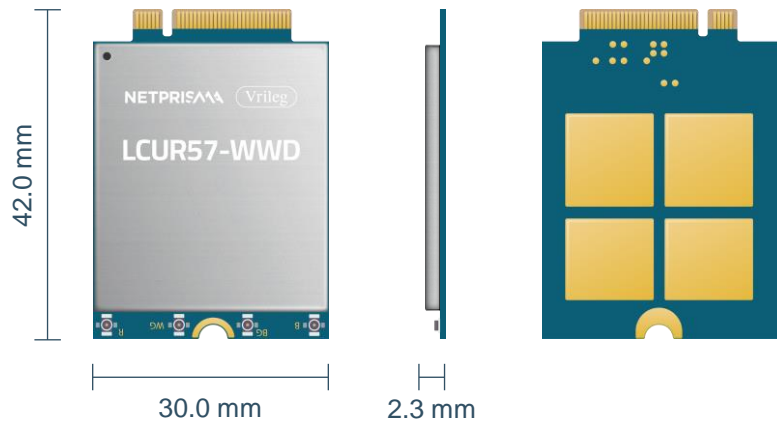# LCUR57-WWD

LTE-A Cat 16
M.2 module

42.0 mm

30.0 mm

2.3 mm

Product Features

▸ LTE-A Cat 16 module with M.2 form factor

▸ Support DL 5 carrier aggregation and 256QAM

▸ Worldwide LTE-A and UMTS/HSPA+ coverage

▸ Support PCIe Gen2 interface for PC/laptop application

▸ Built-in eSIM (optional), DSSA

▸ Low power mode

▸ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment

▸ MIMO technology meets demands for data rate and link reliability in modem wireless communication systems

LCUR57-WWD is an LTE Advanced category 16 module. Adopting 3GPP Release 14 technology, it supports a theoretical downlink peak data rate of 1.0 Gbps and a theoretical uplink peak data rate of   150 Mbps. Designed in an M.2 form factor, the module facilitates customers' migration between different modules.

LCUR57-WWD is designed for the global market and nearly covers all the mainstream carriers worldwide. The module supports Qualcomm® IZat^{TM} location technology Gen9-VT (GPS, GLONASS, BDS and Galileo). The integrated GNSS greatly simplifies product design, and provides quicker, more accurate and more dependable positioning capability.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (PCIe interface/USB drivers for Windows, Linux, Android/optional built-in eSIM) extend the suitability of the module to a wide range of applications such as industrial routers, home gateways, set-top boxes, industrial and consumer laptops, industrial PDAs, rugged tablet PCs, and digital signages.

4G	DL: LTE Cat 16 UL: LTE Cat 13	**3G**	DL: max. 42 Mbps UL: max. 5.76 Mbps		M.2 form factor
	Embedded abundant protocols		PCIe Gen2 interface		Multi-constellation GNSS
	USB 2.0/3.0 high speed interface		Enhanced AT commands		

Version: 1.0.0
Status: Preliminary

LCUR57-WWD

Mechanical Data

Region/operator	Global
Package	M.2 package, Key-B
Dimensions (mm)	30.0 × 42.0 × 2.3
Weight (g)	6.8

Temperature Range

Operating temperature	-25 °C to +75 °C
Extended temperature	-40 °C to +85 °C

Frequency Bands

LTE	**LTE-FDD:** B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 19/ 20/ 25/ 26/ 28/ 29[1]/ 30/ 32[1]/ 66 **LTE-TDD:** B38/ 39/ 40/ 41/ 42/ 43/ 46[1] (LAA)/ 48 (CBRS) **DL 2/ 3/ 4CA:** intra-band and inter-band **DL 5CA:** intra-band and inter-band within 5 bands **UL 2CA:** intra-band **DL 4 × 4 MIMO:** B1/ 2/ 3/ 4/ 7/ 25/ 30/ 32[1]/ 38/ 39/ 40/ 41/ 66
UMTS	**WCDMA:** B1/ 2/ 3/ 4/ 5/ 6/ 8/ 19
GNSS	GPS/GLONASS/BDS/Galileo

Data Transmission

LTE data rate		Max. 1.0 Gbps (DL)/ 150 Mbps (UL)
UMTS data rate	**DC-HSDPA**	Max. 42 Mbps (DL)
	HSUPA	Max. 5.76 Mbps (UL)
	WCDMA	Max. 384 kbps (DL/UL)

Interfaces

(U)SIM (1.8/3.0 V)	× 2
I2C	× 1
USB 2.0/3.0	× 1
PCIe 2.0	× 1
Antenna	× 4 (Main, Rx-diversity/ GNSS,MIMO1,MIMO2)

Enhanced Features

Built-in eSIM	○
USIM detection & hot plug	●
DSSA (Dual SIM, Single Active)	●
DFOTA (Delta Firmware Over-the-Air)	●
PCIOT	○

Software Features

Protocols	QMI/ MBIM/ NITZ/ PING/ HTTP/ HTTPS
3GPP	3GPP E-UTRA Release 14
MBIM driver	Windows 10/11
USB serial driver	Windows 10/11 Linux 3.x-6.x
NDIS driver	Windows 10/11
PCIE MHI driver	Windows 10/11 Linux 3.x-6.x

Certifications

Carrier*	**Europe:** Vodafone/ Swisscom/ EE/ Deutsche Telekom/ Telefonica **America:** Verizon/ AT&T/ T-Mobile **China:** China Unicom **Japan:** NTT DOCOMO/ Softbank/ KDDI
Regulatory*	PTCRB/ GCF/ NCC/ Anatel/ SRRC/ NAL/ CCC/ CE/ FCC/ IC/ RCM/ JATE/ TELEC/ ICASA
Others*	WHQL/ RoHS Compliant

Electrical Features

Supply voltage (V)	3.135–4.4, typ. 3.7
Power consumption @ USB mode	**Power down:** 48 µA **Flight mode:** 2.15 mA **Idle:** 2.54 mA (USB suspend)
Power consumption @ PCIe-only mode	**Power down:** 48 µA **Flight mode:** 2.34 mA **Idle:** 2.78 mA (connected in S0i3)

1: For secondary component carrier only.

*****: Under development/In progress.

●: Supported; ○: Optional.

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