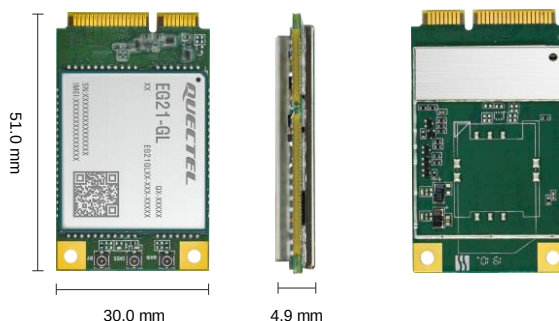




Quectel EG21-GL Mini PCIe

IoT/M2M-optimized LTE Cat 1 Module



Quectel EG21-GL Mini PCIe is an LTE Cat 1 module adopting standard PCI Express® Mini Card form factor (Mini PCIe). It is optimized specially for M2M and IoT applications and delivers maximum data rates up to 10 Mbps downlink and 5 Mbps uplink.

EG21-GL Mini PCIe is backward-compatible with existing EDGE and GSM/GPRS networks, ensuring that it can be connected even in remote areas devoid of 4G or 3G coverage.

EG21-GL Mini PCIe supports Qualcomm® IZat™ location technology Gen8C Lite (GPS, GLONASS, BDS, Galileo and QZSS). The integrated GNSS greatly simplifies product design and provides quicker, more accurate and dependable positioning.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 10/11, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications, such as smart metering, wearable devices, environmental monitoring, asset tracking, fleet management, smart safety and alarm systems.



Key Features

- ✓ LTE Cat 1 module optimized for M2M and IoT applications
- ✓ Worldwide LTE, UMTS/HSPA(+) and GSM/GPRS/EDGE coverage
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Standard PCI Express® Mini Card form factor (Mini PCIe) ideal for manufacturers to easily integrate wireless connectivity into their devices



LTE Cat 1
Max. 10 Mbps (DL)
Max. 5 Mbps (UL)



Max. 42 Mbps (DL)
Max. 5.76 Mbps (UL)



Mini PCIe
Package



USB Drivers



Quectel Enhanced
AT Commands



USB 2.0 High Speed
Interface



Embedded Abundant
Protocols



Multi-constellation GNSS
(Optional)

Quectel EG21-GL Mini PCIe

LTE Cat 1	EG21-GL Mini PCIe
Region/Operator	Global
Dimensions (mm)	30.0 × 51.0 × 4.9
Weight (g)	Approx. 10.5
Temperature Range	
Operating Temperature	-35 °C to +75 °C
Extended Temperature	-40 °C to +80 °C
Frequency Bands	
LTE-FDD	B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66
LTE-TDD	B34/38/39/40/41
WCDMA	B1/2/4/5/6/8/19
TD-SCDMA	-
GSM/EDGE	B2/3/5/8
GNSS (Optional)	GPS/GLONASS/BDS/Galileo/QZSS
Certifications	
Carrier	America: Verizon/AT&T/T-Mobile Canada: Telus Australia: Telstra New Zealand: Spark
Regulatory	Global: GCF Europe: CE North America: PTCRB America: FCC The UK: UKCA Canada: IC Brazil: Anatel China: SRRC/NAL/CCC South Korea: KC Taiwan, China: NCC Japan: JATE/TELEC Australia/New Zealand: RCM
Others	WHQL
Max. Data Rates	
LTE-FDD (Mbps)	10 (DL)/5 (UL)
LTE-TDD (Mbps)	8.96 (DL)/3.1 (UL)
DC-HSPA+ (Mbps)	42 (DL)/5.76 (UL)
WCDMA (kbps)	384 (DL)/384 (UL)
EDGE (kbps)	296 (DL)/236.8 (UL)
GPRS (kbps)	107 (DL)/85.6 (UL)
Interfaces	
(U)SIM	× 1
UART	× 1 (Main UART)
USB 2.0	× 1
Digital Audio (PCM)	× 1
I2C	× 1
Voice	
Speech Codec Modes	HR/FR/EFR/AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Suppression
VoLTE (Optional)	Digital Audio and VoLTE (Voice over LTE)
Enhanced Features	
DTMF	●
DFOTA	●
QMI/RmNet	●
Audio Playback/Audio Recording	Optional
QuecOpen®	-
QuecFile®	●
(U)SIM Card Detection	●

NOTE:

●: Supported.

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LTE Cat 1	EG21-GL Mini PCIe
Software Features	
Protocols	TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/SMTP/MQTT/CMUX/HTTPS/FTPS/SMTPS/SSL/MMS/FILE
Drivers	
USB Serial Driver	Windows 10/11 Linux 2.6–6.7 Android 4.x–14.x
GNSS Driver	Android 4.x–14.x
RIL Driver	Android 4.x–14.x
USB NDIS Driver	Windows 10/11
USB GobiNet Driver	Linux 2.6–6.7
USB QMI_WWAN Driver	Linux 3.4–6.7
Electrical Features	
Supply Voltage Range	3.0–3.6 V, typ. 3.3 V
Power Consumption (Typ.)	2.9 mA @ Sleep 23 mA @ Idle

