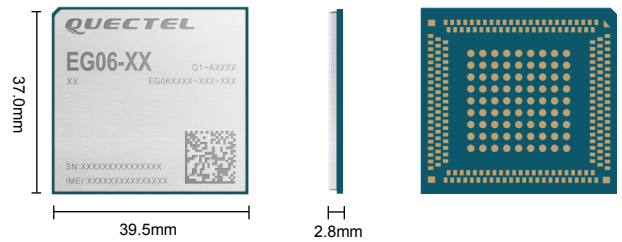




Quectel EG06

IoT/M2M-optimized LTE-A Cat 6 LGA Module



Quectel EG06 is a series of LTE Advanced category 6 module optimized specially for M2M and IoT applications. Adopting the 3GPP Rel. 11 LTE technology, it delivers maximum data rates up to 300Mbps downlink and 50Mbps uplink.

Designed in the LGA form factor, EG06 contains 3 variants (EG06-E, EG06-A and EG06-AUTL) for different target regions and these variants nearly cover all the main stream carriers worldwide.

EG06 supports Qualcomm® IZat™ location technology Gen8C Lite (GPS, GLONASS, BeiDou/Compass, Galileo and QZSS). 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 (USB drivers for Windows 7, Windows 8/8.1, Windows 10, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as industrial router, home gateway, set top box, industrial PDA, rugged tablet PC, video surveillance and digital signage, etc.



Key Benefits

- ✓ LTE-A Cat 6 module with LGA form factor, optimized for M2M and IoT applications
- ✓ Support LTE-A carrier aggregation
- ✓ Worldwide LTE-A and UMTS/HSPA(+) coverage
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Feature refinements: supports DFOTA and DTMF
- ✓ MIMO technology meets demands for data rate and link reliability in modem wireless communication systems



LTE Cat 6
Max 300Mbps (DL)
Max 50Mbps (UL)



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



LGA Package



Embedded Abundant
Protocols



Voice over LTE



Multi-constellation
GNSS



USB 2.0/3.0 Interface



USB Drivers



Quectel Enhanced
AT Commands

Rev.: V1.7 | Status: Released

Quectel EG06 Series

LTE Cat 6	EG06-E	EG06-A	EG06-AUTL ^③
Region/Operator	EMEA/APAC ^① /Brazil	North America/Mexico	Australia
Dimensions (mm)	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8
Temperature Range			
Operation Temperature	-35°C ~ +75°C	-35°C ~ +75°C	-35°C ~ +75°C
Extended Temperature	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Frequency Bands			
LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32 ^②	B2/B4/B5/B7/B12/B13/B25/B26/B29 ^② /B30/B66	B3/B7/B28
LTE-TDD	B38/B40/B41	\	\
2xCA	B1+B1/B5/B8/B20/B28; B3+B3/B5/B7/B8/B20/B28; B7+B5/B7/B8/B20/B28; B20+B32 ^② ; B38+B38; B40+B40; B41+B41	B2+B2/B5/B12/B13/B29 ^② ; B4+B4/B5/B12/B13/B29 ^② ; B7+B5/B7/B12/B26; B25+B5/B12/B25/B26; B30+B5/B12/B29 ^② ; B66+B5/B12/B13/B29 ^② /B66	B3+B3/B7/B28; B7+B7/B28
WCDMA	B1/B3/B5/B8	B2/B4/B5	\
GNSS	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)	GPS/LONASS/BeiDou (Compass)/Galileo/QZSS (Optional)	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)
Certifications			
Carrier	Europe: Deutsche Telekom/British Telecom Australia: Telstra	North America: Verizon/AT&T/U.S. Cellular	Australia: Telstra
Regulatory	Global: GCF Europe: CE South Korea: KC Australia & New Zealand: RCM	Global: GCF North America: FCC/PTCRB Canada: IC	Global: GCF Australia & New Zealand: RCM
Others	RoHS/WHQL	RoHS/WHQL	RoHS/WHQL
Data Transmission			
LTE-FDD Data Rate (Mbps)	300 (DL) ^③ /50 (UL)	300 (DL) ^③ /50 (UL)	300 (DL) ^③ /50 (UL)
LTE-TDD Data Rate (Mbps)	226 (DL)/28 (UL)	226 (DL)/28 (UL)	226 (DL)/28 (UL)
DC-HSPA+ Data Rate (Mbps)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)
WCDMA Data Rate (Kbps)	384 (DL)/384 (UL)	384 (DL)/384 (UL)	384 (DL)/384 (UL)
Interfaces			
USB 2.0/3.0	x1 (Support Master* and Slave Modes)	x1 (Support Master* and Slave Modes)	x1 (Support Master* and Slave Modes)
PCM (Digital Audio)	x1	x1	x1
(U)SIM	x1, 1.8V/3.0V	x1, 1.8V/3.0V	x1, 1.8V/3.0V
GPIOs	x2	x2	x2
UART	x3	x3	x3
PCIe (RC)* (PCIe Gen 2, for Wi-Fi, Ethernet Functions)	x1	x1	x1
SD Card*	x1	x1	x1
ADC	x2	x2	x2
I2C	x1	x1	x1
RESET_N	x1	x1	x1
Antennas	x3 (Main, Diversity and GNSS Antennas)	x3 (Main, Diversity and GNSS Antennas)	x3 (Main, Diversity and GNSS Antennas)
Voice			
Speech Codec Modes	AMR/AMR-WB	AMR/AMR-WB	AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Suppression	Echo Cancellation/Noise Suppression	Echo Cancellation/Noise Suppression
VoLTE	CSFB and VoLTE (Voice over LTE) (Optional)	CSFB and VoLTE (Voice over LTE) (Optional)	CSFB and VoLTE (Voice over LTE) (Optional)
Enhanced Features			
MIMO (2x2, 4x2, DL)	●	●	●
DFOTA	●	●	●
DTMF	●	●	●
Digital Audio and VoLTE (Voice over LTE)	Optional	Optional	Optional
Ethernet*/Wi-Fi* Function through PCIe Interface	●	●	●
GNSS	●	●	●
(U)SIM Card Detection	●	●	●
Drivers			
USB Driver	Windows 7/8/8.1/10, Linux 2.6~5.4, Android 4.x/5.x/6.x/7.x/9.x	Windows 7/8/8.1/10, Linux 2.6~5.4, Android 4.x/5.x/6.x/7.x/9.x	Windows 7/8/8.1/10, Linux 2.6~5.4, Android 4.x/5.x/6.x/7.x/9.x
GNSS Driver	Android 4.x/5.x/6.x/7.x/8.x/9.x	Android 4.x/5.x/6.x/7.x/8.x/9.x	Android 4.x/5.x/6.x/7.x/8.x/9.x
RIL Driver	Android 4.x/5.x/6.x/7.x/8.x/9.x	Android 4.x/5.x/6.x/7.x/8.x/9.x	Android 4.x/5.x/6.x/7.x/8.x/9.x
NDIS Driver	Windows 7/8/8.1/10	Windows 7/8/8.1/10	Windows 7/8/8.1/10
MBIM Driver	Windows 8/8.1/10, Linux 3.18~5.4	Windows 8/8.1/10, Linux 3.18~5.4	Windows 8/8.1/10, Linux 3.18~5.4
GobiNet Driver	Linux 2.6~5.4	Linux 2.6~5.4	Linux 2.6~5.4
QMI_WWAN Driver	Linux 3.4~5.4	Linux 3.4~5.4	Linux 3.4~5.4
Electrical Features			
Supply Voltage Range	3.3V~4.3V, 3.8V Typ.	3.3V~4.3V, 3.8V Typ.	3.3V~4.3V, 3.8V Typ.
Power Consumption	10µA @Power off 1.5mA @Sleep (PF=128) 1.5mA @Sleep (PF=64) 18mA @Idle	8µA @Power off 1.7mA @Sleep (PF=128) 2.1mA @Sleep (PF=64) 20mA @Idle	10µA @Power off 1.5mA @Sleep (PF=128) 1.5mA @Sleep (PF=64) 18mA @Idle

Notes:

1. * means Under Development.

2. ● means supported.

① Excluding Japan and CMCC.

② LTE-FDD B29 and B32 support receiving only, and are only for secondary component carrier in 2xCA.

③ EG06-AUTL supports 400Mbps DL peak data rates with 256-QAM modulation.