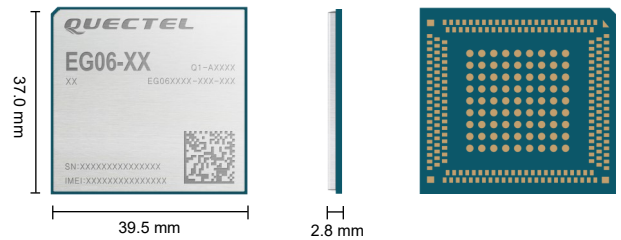




Quectel EG06 Series

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



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

Designed in the LGA form factor, the series comes in 4 models (EG06-E, EG06-A, EG06-AUTL and EG06-EA) for different target regions and these models nearly cover all the mainstream carriers worldwide.

EG06 supports Qualcomm® IZat™ location technology Gen8C Lite (GPS, GLONASS, BeiDou, Galileo and QZSS). The integrated GNSS greatly simplifies product design, and provides quicker, more accurate and reliable positioning.

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 Features

- ✓ 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 on data rate and link reliability in modem wireless communication systems



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



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



LGA Package



Embedded Abundant
Protocols



Voice over LTE



Multi-constellation
GNSS



USB 2.0/3.0 Interface



USB Drivers



Quectel Enhanced
AT Commands

Version: 1.9 | Status: Released

Quectel EG06 Series

LTE Cat 6	EG06-E	EG06-A	EG06-AUTL ^③	EG06-EA
Region/Operator	EMEA/APAC ^① /Brazil	North America/Mexico	Australia	EMEA
Dimensions (mm)	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8
Temperature Range				
Operation Temperature	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +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	B1/B3/B5/B7/B8/B20/B28/B32 ^②
LTE-TDD	B38/B40/B41	-	-	B38/B40/B41
2CA	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	B1+B1/B3/B5/B7/B8/B20/B28; B3+B3/B5/B7/B8/B20/B28; B5+B5; B7+B5/B7/B8/B20/B28; B20+B32 ^② ; B38+B38; B40+B40; B41+B41
WCDMA	B1/B3/B5/B8	B2/B4/B5	-	B1/B3/B5/B8
GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS (Optional)	GPS/LONASS/BeiDou/Galileo/QZSS (Optional)	GPS/GLONASS/BeiDou/Galileo/QZSS (Optional)	GPS/GLONASS/BeiDou/Galileo/QZSS (Optional)
Certifications				
Carrier	Europe: Deutsche Telekom/British Telecom Australia: Telstra	North America: Verizon/AT&T/U.S. Cellular/T-Mobile	Australia: Telstra	
Regulatory	Global: GCF Europe: CE South Korea: KC Australia & New Zealand: RCM Russia: FAC	Global: GCF North America: FCC/PTCRB Canada: IC Australia & New Zealand: RCM	Global: GCF Australia & New Zealand: RCM	Europe: CE Australia & New Zealand: RCM
Others	RoHS/WHQL	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)	300 (DL) ^③ /50 (UL)
LTE-TDD Data Rate (Mbps)	226 (DL)/28 (UL)	226 (DL)/28 (UL)	226 (DL)/28 (UL)	226 (DL)/28 (UL)
DC-HSPA+ Data Rate	42 (DL)/5.76 (UL)	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)	384 (DL)/384 (UL)
Interfaces				
USB 2.0/3.0	× 1 (Support Master* and Slave Modes)	× 1 (Support Master* and Slave Modes)	× 1 (Support Master* and Slave Modes)	× 1 (Support Master* and Slave Modes)
PCM (Digital Audio)	× 1	× 1	× 1	× 1
(U)SIM	× 1; 1.8/3.0 V	× 1; 1.8/3.0 V	× 1; 1.8/3.0 V	× 1; 1.8/3.0 V
GPIOs	× 2	× 2	× 2	× 2
UART	× 3	× 3	× 3	× 3
PCIe (RC)* (for Wi-Fi and Ethernet functions)	× 1	× 1	× 1	× 1
SD Card*	× 1	× 1	× 1	× 1
ADC	× 2	× 2	× 2	× 2
I2C	× 1	× 1	× 1	× 1
RESET_N	× 1	× 1	× 1	× 1
Antennas	× 3 (Main, Diversity and GNSS Antennas)	× 3 (Main, Diversity and GNSS Antennas)	× 3 (Main, Diversity and GNSS Antennas)	× 3 (Main, Diversity and GNSS Antennas)
Voice				
Speech Codec Modes	AMR/AMR-WB	AMR/AMR-WB	AMR/AMR-WB	AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Suppression	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)	CSFB and VoLTE (Voice over LTE) (Optional)
Enhanced Features				
MIMO (2x2, 4x2, DL)	●	●	●	●
DFOTA	●	●	●	●
DTMF	●	●	●	●
Digital Audio and VoLTE	Optional	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	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	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	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	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	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	Linux 2.6~5.4
QMI_WWAN Driver	Linux 3.4~5.4	Linux 3.4~5.4	Linux 3.4~5.4	Linux 3.4~5.4
Electrical Features				
Supply Voltage Range	3.3~4.3 V, Typ. 3.8 V	3.3~4.3 V, Typ. 3.8 V	3.3~4.3 V, Typ. 3.8 V	3.3~4.3 V, Typ. 3.8 V
Power Consumption	10 μA @ Power off 2.7 mA @ Sleep (PF = 128) 2.7 mA @ Sleep (PF = 64) 28.5 mA @ Idle	8 μA @ Power off 2.1 mA @ Sleep (PF = 128) 2.8 mA @ Sleep (PF = 64) 22 mA @ Idle	10 μA @ Power off 2.7 mA @ Sleep (PF = 128) 2.7 mA @ Sleep (PF = 64) 28.5 mA @ Idle	12 μA @ Power off 2.4 mA @ Sleep (PF = 128) 3.0 mA @ Sleep (PF = 64) 30 mA @ Idle

Notes:

- * Under Development.
- Supported.
- ① Excluding Japan and CMCC.
- ② LTE-FDD B29 and B32 support receiving only, and are only for secondary component carrier in 2CA.
- ③ Supports 400 Mbps DL peak data rate with 256-QAM modulation.