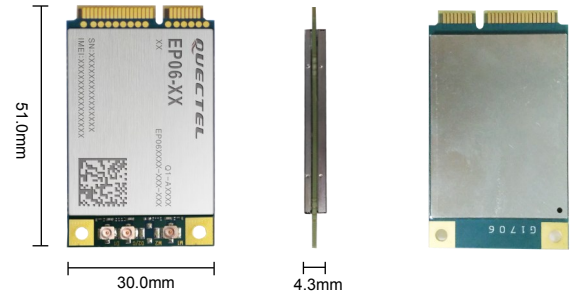




Quectel EP06

IoT/M2M-optimized LTE-A Cat 6 Mini PCIe Module



Quectel EP06 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 Mini PCIe form factor, EP06 contains 2 variants (EP06-E and EP06-A) for different target regions and these variants nearly cover all the main stream carriers worldwide.

EP06 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 Mini PCIe form factor, optimized for M2M and IoT applications
- ✓ Support LTE-A carrier aggregation
- ✓ Worldwide LTE-A, 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)



Mini PCIe
Package



Embedded Abundant
Protocols



Voice over LTE



Multi-constellation
GNSS



USB 2.0/3.0 Interface



USB Drivers



Quectel Enhanced
AT Commands

Rev.: V1.6 | Status: Released

Quectel EP06 Series

LTE Cat 6	EP06-E	EP06-A
Region/Operator	EMEA/APAC ^① /Brazil	North America/Mexico
Dimensions (mm)	51.0 × 30.0 × 4.3	51.0 × 30.0 × 4.3
Temperature Range		
Operation Temperature	-35°C ~ +75°C	-35°C ~ +75°C
Extended Temperature	-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
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
WCDMA	B1/B3/B5/B8	B2/B4/B5
GNSS	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)
Certifications		
Carrier	Europe: Deutsche Telekom* Australia: Telstra	North America: Verizon/AT&T/Sprint Canada: Rogers
Regulatory	Global: GCF Europe: CE Taiwan (China): NCC Australia & New Zealand: RCM	Global: GCF North America: FCC/PTCRB Canada: IC
Others	RoHS/WHQL	RoHS/WHQL
Data Transmission		
LTE-FDD Data Rate (Mbps)	300 (DL)/50 (UL)	300 (DL)/50 (UL)
LTE-TDD Data Rate (Mbps)	226 (DL)/28 (UL)	226 (DL)/28 (UL)
DC-HSPA+ Data Rate (Mbps)	42 (DL)/5.76 (UL)	42 (DL)/5.76 (UL)
WCDMA Data Rate (Kbps)	384 (DL)/384 (UL)	384 (DL)/384 (UL)
Interfaces		
USB 2.0/3.0	x1	x1
PCM (Digital Audio)	x1	x1
I2C	x1	x1
(U)SIM	x2, 1.8V/3.0V	x2, 1.8V/3.0V
Antenna Tuner Control* (ANTCTL)	x4	x4
W_DISABLE_N*	x1	x1
RESET_N	x1	x1
WAKE_N*	x1	x1
WWAN_LED_N	x1	x1
Antennas	x3 (Main, Diversity and GNSS Antennas)	x3 (Main, Diversity and GNSS Antennas)
Voice		
Speech Codec Modes	AMR/AMR-WB	AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Suppression	Echo Cancellation/Noise Suppression
VoLTE	CSFB and VoLTE (Voice over LTE) (Optional)	CSFB and VoLTE (Voice over LTE) (Optional)
Enhanced Features		
MIMO (2x2, 4x2, DL)	●	●
Digital Audio and VoLTE (Voice over LTE)	Optional	Optional
DTMF	●	●
Dual SIM Single Standby	●	●
DFOTA	●	●
GNSS	●	●
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
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
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
NDIS Driver	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
GobiNet Driver	Linux 2.6~5.4	Linux 2.6~5.4
QMI_WWAN Driver	Linux 3.4~5.4	Linux 3.4~5.4
Electrical Features		
Supply Voltage Range	3.1V~4.4V, 3.3V Typ.	3.1V~4.4V, 3.3V Typ.
Power Consumption	3.3mA @Sleep, Typ. 32.12mA @Idle	3.7mA @Sleep, Typ. 31.3mA @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.