

# 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 M2M-optimized speeds of 300Mbps downlink and 50Mbps uplink peak data rates.

Designed in the Mini PCIe form factor, EP06 contains 4 variants (EP06-E, EP06-A, EP06-LA<sup>①</sup> and EP06-CN<sup>①</sup>) 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, 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



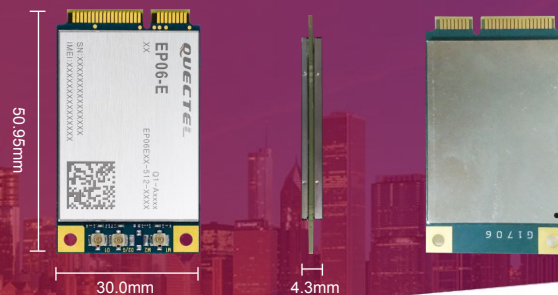
USB Drivers



Quectel Enhanced AT Commands

# Quectel EP06

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



### Variant for EMEA/APAC<sup>②</sup>/Brazil

#### EP06-E

LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32<sup>③</sup>

LTE-TDD: B38/B40/B41

2×CA: B1+B1/B5/B8/B20/B28;

B3+B3/B5/B7/B8/B20/B28;

B7+B5/B7/B8/B20/B28;

B20+B32<sup>③</sup>; B38+B38; B40+B40; B41+B41

WCDMA: B1/B3/B5/B8

### Variant for North America

#### EP06-A

LTE-FDD: B2/B4/B5/B7/B12/B13/B25/B26/  
B29<sup>③</sup>/B30/B66

2×CA: B2+B2/B5/B12/B13/B29<sup>③</sup>;

B4+B4/B5/B12/B13/B29<sup>③</sup>;

B7+B5/B7/B12/B26;

B25+B5/B12/B25/B26;

B30+B5/B12/B29<sup>③</sup>;

B66+B5/B12/B13/B29<sup>③</sup>/B66

WCDMA: B2/B4/B5

### Variant for Latin America

#### EP06-LA (Under Planning)

LTE-FDD: B2/B3/B4/B5/B7/B8/B20/B28

2×CA: B2+B2/B5/B8/B20/B28;

B3+B3/B5/B7/B8/B20/B28;

B4+B4/B5/B8/B20/B28;

B7+B5/B7/B8/B20/B28

WCDMA: B2/B3/B4/B5/B8

### Variant for China

#### EP06-CN (Under Planning)

LTE-FDD: B1/B3/B5/B8

LTE-TDD: B34/B39/B40/B41

2×CA: B1+B3/B5/B8; B3+B5/B8;

B39+B39; B39+B41;

B40+B40; B41+B41

WCDMA: B1/B8

### Data

#### LTE:

LTE-FDD: Max 300Mbps (DL)/Max 50Mbps (UL)

LTE-TDD: Max 226Mbps (DL)/Max 28Mbps (UL)

#### UMTS:

DC-HSDPA: Max 42Mbps

HSUPA: Max 5.76Mbps

WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL)

### SMS

Point-to-point MO and MT

SMS Cell Broadcast

Text and PDU Mode

### Interfaces

USB 2.0/3.0 × 1: Support Slave Mode

PCM × 1: Digital Audio

I2C × 1

(U)SIM × 2: 1.8V/3.0V

ANTCTL\* × 4

W\_DISABLE\_N\*: Control RF Function

RESET\_N: Reset the Module

WAKE\_N\*: Wake up the Host

WWAN\_LED\_N: Indicate Network Status

Main, Diversity and GNSS Antenna Interfaces

### Enhanced Features

MIMO: 2 × 2, 4 × 2, DL

Digital Audio and VoLTE (Voice over LTE)

(Optional)

DTMF: Dual-tone Multi-frequency

Support Dual SIM Single Standby

DFOTA: Delta Firmware Upgrade Over-the-Air

GNSS: GPS/GLONASS/BeiDou/Galileo/QZSS

### Electrical Characteristics

#### Output Power:

Class 3 (23dBm±2dB) for LTE-FDD

Class 3 (23dBm±2dB) for LTE-TDD

Class 3 (24dBm+1/-3dB) for WCDMA

#### Consumption:

1.9mA @Sleep, Typ.

32mA @Idle

### Software Features

#### MBIM Driver:

Windows 10

#### USB Serial Driver:

Windows 7/8/8.1/10,

WinCE 5.0/6.0/7.0\*, Linux 2.6/3.x/4.1~4.14,

Android 4.x/5.x/6.x/7.x/8.x

### RIL Driver:

Android 4.x/5.x/6.x/7.x/8.x

### NDIS Driver:

Windows 7/8/8.1/10

### ECM Driver\*:

Linux 2.6/3.x/4.1~4.14

### Gobinet Driver:

Linux 2.6/3.x/4.1~4.14

### QMI\_WWAN Driver:

Linux 3.x (3.4 or later)/4.1~4.14

### Protocols:

PPP/QMI/TCP\*/UDP\*/FTP\*/HTTP\*/NTP\*/PING\*/

HTTPS\*/SMTP\*/MMS\*/FTPS\*/SMTPS\*/SSL\*

### General Features

3GPP E-UTRA Release 11

Bandwidth: 1.4/3/5/10/15/20/40 (2×CA)MHz

Supply Voltage: 3.1V~4.4V, 3.3V Typ.

Temperature Range: -40°C ~ +85°C

Dimensions: 30.0mm × 50.95mm × 4.3mm

Mini PCIe Package

Approx. 6.0g

3GPP TS27.007 and Quectel Enhanced AT

Commands

### Approvals

GCF (Global)

CE/Deutsche Telekom\* (Europe)

RCM/Telstra\* (Australia & New Zealand)

FCC/PTCRB/IC/AT&T\*/Verizon\*/Telus\*(North

America)

CCC\* (China)

① Under Planning.

② Excluding Japan and CMCC.

③ LTE-FDD B29 and B32 Support Rx Only,  
and in 2×CA They are Only for Secondary  
Component Carrier.

\* Under Development.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View EP06ELA-512-SGA on WIN SOURCE](#)
- ⊖ [Quectel Information](#)

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- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management