

# Quectel EC200T

IoT/M2M-optimized  
LTE Cat 4 Module



Quectel EC200T is a series of LTE Cat 4 modules optimized specially for M2M and IoT applications. Adopting the 3GPP Rel. 9 LTE technology, it delivers 150Mbps downlink and 50Mbps uplink data rates. Designed in compact and unified form factor, EC200T is compatible with Quectel multi-mode LTE Standard EC2x(EC25/EC21/EC20 R2.0/EC20 R2.1), and UMTS/HSPA+ UC20/UC200T modules, which allows for flexible migration among them in design and manufacturing. EC200T also supports standard Mini PCIe package to meet the needs of product applications in different industries.

EC200T contains two variants: EC200T-CN and EC200T-EU, which meet the frequency band coverage of different countries and regions. EC200T adopts the laser engraving process to ensure more good-looking appearance, strong metal texture, better heat dissipation, information not easy to be erased, and more suitable for automation requirements.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 7/8/8.1/10, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as industrial router, industrial PDA, rugged tablet PC, video surveillance, and digital signage.



## Key Benefits

- ✓ LTE Cat 4 module optimized for M2M and IoT applications
- ✓ Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
- ✓ Support Firmware Upgrade Over-The-Air (FOTA)
- ✓ MIMO technology meets demands for data rate and link reliability in modem wireless communication systems
- ✓ Super cost-effective



LTE Cat 4  
Max 150Mbps (DL)  
Max 50Mbps (UL)



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



LCC Package



Wi-Fi



FOTA



Embedded  
Abundant Protocols



Quectel Enhanced  
AT Commands



USB 2.0 High Speed  
Interface

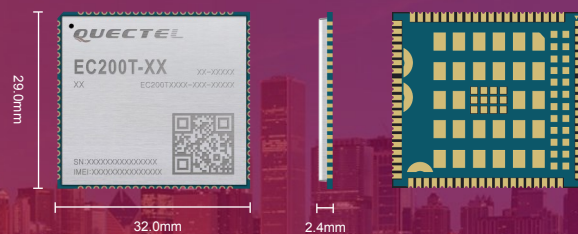


USB Drivers

# Quectel EC200T

## IoT/M2M-optimized

## LTE Cat 4 Module



### China/India:

#### EC200T-CN:

LTE FDD: B1/B3/B5/B8

LTE TDD: B34/B38/B39/B40/B41

WCDMA: B1/B5/B8

GSM: 900/1800MHz

### Europe/Southeast Asia:

#### EC200T-EU:

LTE FDD: B1/B3/B5<sup>①</sup>/B7/B8/B20<sup>①</sup>/B28

LTE TDD: B38/B40/B41

WCDMA: B1/B5/B8

GSM: 900/1800MHz

### Data

#### LTE:

LTE FDD: Max 150Mbps (DL)/Max 50Mbps (UL)

LTE TDD: Max 130Mbps (DL)/Max 30Mbps (UL)

#### UMTS:

HSPA+: Max 21Mbps (DL)

HSUPA: Max 5.76Mbps (UL)

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

#### GSM:

EDGE: Max 236.8Kbps (DL)/Max 236.8Kbps (UL)

GPRS: Max 85.6Kbps (DL)/Max 85.6Kbps (UL)

### Interfaces

USB x 1: USB 2.0 with High Speed up to 480Mbps

Digital Audio through PCM Interface (Optional)

(U)SIM x 1: 1.8V/3.0V (U)SIM Interface

NETLIGHT x 2 (NET\_STATUS and NET\_MODE)

UART X 2: Main UART and Debug UART

ADC x 2

SDIO\* x 2 (for SD card and Wi-Fi)

RESET (Active low)

PWRKEY (Active low)

Solder Pads for Primary and Rx-diversity

Antennas

### Enhanced Features

FOTA (Firmware Upgrade Over-The-Air)

(U)SIM Card Detection

Downlink Supports MIMO and RX-diversity

Antenna

SDIO Interface for Wi-Fi Function

### Electrical Characteristics

#### Output Power:

Class 3 (23dBm±2dB) for LTE FDD bands

Class 3 (23dBm±2dB) for LTE TDD bands

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

Class E2 (27dBm±3dB) for EGSM900 8-PSK

Class E2 (26dBm±3dB) for DCS1800 8-PSK

Class 4 (33dBm±2dB) for EGSM900

Class 1 (30dBm±2dB) for DCS1800

#### Consumption:

11uA @Power off

2.05mA @LTE Sleep (PF=128)

1.56mA @LTE Sleep (PF=256)

28.5mA @Idle

#### Sensitivity:

FDD B1: -100dBm (10M)

FDD B3: -100.5dBm (10M)

FDD B5: -101dBm (10M)

FDD B7: -98dBm (10M)

FDD B8: -101dBm (10M)

FDD B20: -100dBm (10M)

FDD B28: -100dBm (10M)

TDD B34: -100dBm (10M)

TDD B38: -100dBm (10M)

TDD B39: -100dBm (10M)

TDD B40: -100dBm (10M)

TDD B41: -99dBm (10M)

WCDMA B1: -108dBm

WCDMA B5: -109dBm

WCDMA B8: -110dBm

EGSM900: -108dBm

DCS1800: -108dBm

### Software Features

#### USB Serial Driver:

Windows 7/8/8.1/10,

Linux 2.6/3.x/4.1~4.15,

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

RNDIS Driver: Windows 7/8/8.1/10

ECM Driver: Linux 2.6/3.x/4.1~4.15

#### Protocols:

TCP/UDP/PPP/NTP/NITZ/FTP/HTTP/PING/CMUX/

HTTPS/FTPS/SSL/FILE/MQTT/MMS\*/SMTP\*/

SMTSP\*

### General Features

Temperature Range: -40°C ~ +85°C

Dimensions: 29.0mm × 32.0mm × 2.4mm

Weight: Approx. 4.4g

LCC Package

Supply Voltage: 3.4V~4.5V, 3.8V Typ.

Bandwidth: 1.4/3/5/10/15/20MHz

3GPP E-UTRA Release 9

3GPP TS 27.007, 27.005 and Enhanced AT

Commands

### Approvals

#### EC200T-CN:

##### Carrier:

China Telecom\*/China Mobile\* (China)

##### Regulatory:

SRRC/NAL/CCC (China)

##### Others:

RoHS Compliant

#### EC200T-EU:

##### Regulatory:

CE\* (Europe)

##### Others:

RoHS Compliant

\* Under Development

① means LTE FDD B5 and B20 cannot be supported on EC200T-EU at the same time.