

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



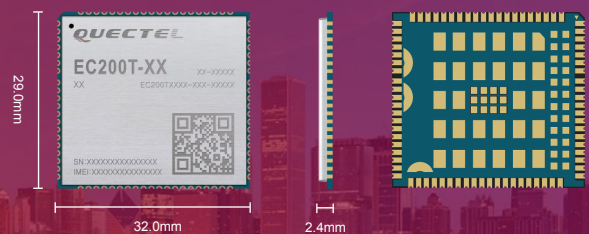
USB 2.0 High Speed
Interface



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/B5^①/B7/B8/B20^①/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*/
SMTPS*

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.