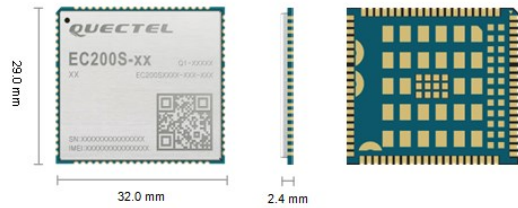




Quectel EC200S Series

IoT/M2M-optimized LTE Cat 1 Module



Quectel EC200S series the latest LTE Cat 1 wireless communication modules optimized specially for M2M and IoT applications. It delivers 10 Mbps downlink and 5 Mbps uplink data rates. Designed in compact and unified form factor, EC200S series is compatible with Quectel multi-mode LTE Standard EC200T series /EC2x (EC25/EC21/EC20 R2.1/EC20-CN) series/EG2x-G (EG21-G/EG25-G), and UMTS/HSPA+ UC200T series modules, which allows for flexible migration among them in design and manufacturing. EC200S series also supports standard Mini PCIe package to meet the needs of product applications in different industries.

EC200S series contains three variants: EC200S-CN, EC200S-EU* and EC200S-EN*, which meet the frequency band coverage of different countries and regions. EC200S series 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 Features

- ✓ LTE Cat 1 module optimized for M2M and IoT applications
- ✓ Worldwide LTE and GSM/GPRS/EDGE coverage
- ✓ Support Firmware Upgrade Over-The-Air (DFOTA)
- ✓ Support Wi-Fi scan positioning (Optional)
- ✓ Support GNSS Receiver * (Optional)
- ✓ Super cost-effective



LTE Cat 1
Max. 10 Mbps (DL)
Max. 5 Mbps (UL)



LCC Package



Embedded
Abundant Protocols



Wi-Fi Scan
(Optional)



DFOTA



USB Drivers



Quectel Enhanced
AT Commands



USB 2.0 High Speed
Interface



GNSS*
(Optional)

Version: 1.0 | Status: Released

Quectel EC200S Series

| LTE Cat 1 | EC200S-CN | EC200S-EU* | EC200S-EN* |
|---|---|--|--|
| Region/ Operator | China/ India | Europe | EMEA/ APAC |
| Dimensions (mm) | 32.0 × 29.0 × 2.4 | 32.0 × 29.0 × 2.4 | 32.0 × 29.0 × 2.4 |
| Temperature Range | | | |
| Operating Temperature | -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 |
| Frequency Bands | | | |
| LTE-FDD | B1/ B3/ B5/ B8 | B1/ B3/ B5/ B7/ B8/ B20/ B28 | B1/ B3/ B5/ B7/ B8/ B20/ B28/ B31/ B72 |
| LTE-TDD | B34/ B38/ B39/ B40/ B41 | B38/ B40/ B41 | - |
| GSM/ EDGE | B3(Optional)/ B8 (Optional) | B2/ B3/ B5/ B8 | B3/ B8 |
| Certifications | | | |
| Carrier | China: China Telecom/ China Mobile | TBD | TBD |
| Regulatory | China: SRRC/ NAL/ CCC | Europe: CE Australia/New Zealand: RCM | Europe: CE* Australia/New Zealand: RCM* |
| Others | RoHS/ WHQL | RoHS/ WHQL | RoHS/ WHQL |
| Max. Data Rates | | | |
| LTE (Mbps) | 10 (DL)/ 5(UL) | 10 (DL)/ 5 (UL) | 10 (DL)/ 5 (UL) |
| EDGE (kbps) | 236.8 (DL)/ 236.8 (UL) | 236.8 (DL)/ 236.8 (UL) | 236.8 (DL)/ 236.8 (UL) |
| GPRS (kbps) | 85.6 (DL)/ 85.6 (UL) | 85.6 (DL)/ 85.6 (UL) | 85.6 (DL)/ 85.6 (UL) |
| Interfaces | | | |
| (U)SIM | x 1 | x 1 | x 1 |
| UART | x 2 | x 2 | x 2 |
| USB 2.0 | x 1 | x 1 | x 1 |
| Analog Digital | x 1 | x 1 | x 1 |
| Digital Audio (PCM) | x 1 | x 1 | x 1 |
| NET_STATUS | x 1 | x 1 | x 1 |
| NET_MODE | x 1 | x 1 | x 1 |
| ADC | x 2 | x 2 | x 2 |
| SDIO* (for SD Card* and Wi-Fi^①) | x 2 | x 2 | x 2 |
| RESET | x 1 | x 1 | x 1 |
| PWRKEY | x 1 | x 1 | x 1 |
| Antennas | x 2 (Main and GNSS (Optional)) | x 1 | x 1 |
| Voice | | | |
| Speech Codec Modes | HR/ FR/ EFR/ AMR/ AMR-WB | HR/ FR/ EFR/ AMR/ AMR-WB | HR/ FR/ EFR/ AMR/ AMR-WB |
| Echo Algorithm | Echo Cancellation/ Noise Suppression | Echo Cancellation/ Noise Suppression | Echo Cancellation/ Noise Suppression |
| Voice | Analog Audio/ Digital Audio | Analog Audio/ Digital Audio | Analog Audio/ Digital Audio |
| Enhanced Features | | | |
| DTMF | ● | ● | ● |
| DFOTA | ● | ● | ● |
| Audio Playback/ Audio Recording | ● | ● | ● |
| Wi-Fi Scan (Optional) | ● | ● | - |
| QuecLocator® | ● | ● | ● |
| QuecFile® | ● | ● | ● |
| VoLTE | ● | ● | ● |
| GNSS* | ● | - | - |
| (U)SIM Card Detection | ● | ● | ● |
| Internet Protocols | | | |
| Internet Protocols | TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS/ SMTP/ SMTPS | TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS/ SMTP/ SMTPS | TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS/ SMTP/ SMTPS |
| Drivers | | | |
| USB Serial Driver | Windows 7/8/8.1/10, Linux 2.6–5.10, Android 4.x–10.x | Windows 7/8/8.1/10, Linux 2.6–5.10, Android 4.x–10.x | Windows 7/8/8.1/10, Linux 2.6–5.10, Android 4.x–10.x |
| GNSS Driver | Android 4.x–10.x | - | - |
| RIL Driver | Android 4.x–10.x | Android 4.x–10.x | Android 4.x–10.x |
| USB RNDIS Driver | Windows 7/8/8.1/10, Linux 2.6–5.10 | Windows 7/8/8.1/10, Linux 2.6–5.10 | Windows 7/8/8.1/10, Linux 2.6–5.10 |
| USB ECM Driver | Linux 2.6–5.10 | Linux 2.6–5.10 | Linux 2.6–5.10 |
| Electrical Characteristics | | | |
| Supply Voltage | 3.4–4.5 V, 3.8 V Typ. | 3.4–4.5 V, 3.8 V Typ. | 3.4–4.5 V, 3.8 V Typ. |
| Consumption | 11 µA @ Power off 0.93 mA @ LTE Sleep (PF = 128) 0.79 mA @ LTE Sleep (PF = 256) 15 mA @ Idle | 11 µA @ Power off 1.24 mA @ LTE Sleep (PF = 128) 1.12 mA @ LTE Sleep (PF = 256) 16.13 mA @ Idle | 20 µA @ Power off 1.11 mA @ LTE Sleep (PF = 128) 0.98 mA @ LTE Sleep (PF = 256) 16.52 mA @ Idle |

Notes:

- * means under development/ongoing.
- means supported.

① means only supported by QuecOpen® solution.