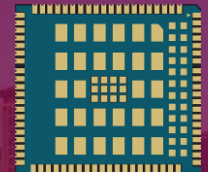


Quectel EC200U-CN

IoT/M2M-optimized

LTE Cat 1 Modules



EC200U-CN-AA

Release Notes

LTE Standard Module Series

Rev. EC200U-CN-AA_Firmware_Release_Notes_V0213

Date: 2022-08-25

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1. Release Content

This document provides the Release Notes for EC200U-CN-AA. The current release includes the firmware package.

| Package | Version |
|----------|---------------------|
| Firmware | EC200UCNAAR02A13M08 |

2. Matters Needing Attention

| SN | Item |
|----|------|
| / | / |

3. Release History

3.1. Firmware Release History

| Firmware Version | Description |
|---------------------|------------------|
| EC200UCNAAR02A13M08 | Mass production. |
| EC200UCNAAR02A11M08 | Mass production. |
| EC200UCNAAR02A10M08 | Mass production. |
| EC200UCNAAR02A09M08 | Mass production. |
| EC200UCNAAR02A08M08 | Mass production. |
| EC200UCNAAR02A07M08 | Mass production. |
| EC200UCNAAR02A06M08 | Mass production. |
| EC200UCNAAR02A05M08 | Mass production. |
| EC200UCNAAR02A04M08 | Mass production. |
| EC200UCNAAR02A03M08 | Mass production. |
| EC200UCNAAR02A01M08 | For CS. |

3.2. New Features

| EC200UCNAAR02A13M08 | |
|---------------------|--|
| Item | Brief Description |
| SMS | Added AT+QSMSCFG command to configure the ME storage space size for SMS. |
| TTS | Supported setting digital broadcast for TTS. |
| TTS | Supported AT+QTTS command to output audio data to USB port. |
| GENERAL | Added USB port enumeration printing device function. |
| GENERAL | Added AT+QUARTCFG command to support configuring the idle interval bit of tx. |

| | |
|----------------|---|
| GENERAL | Supported BIP application to search for available cid from channel 3 by default, and added AT+QCFG="bip/cid" command to configure the cid used by BIP. |
|----------------|---|

| | |
|----------------|--|
| GENERAL | Added a renew IP message that recognizes DHCP for USBNET/PPP, and added a reply ack to this message. |
|----------------|--|

EC200UCNAAR02A11M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

| | |
|----------------|--|
| NETWORK | Added AT+QLOCREL command to set the time for RRC active release in local. |
|----------------|--|

EC200UCNAAR02A10M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

| | |
|----------------|---|
| NETWORK | Added AT command AT+QDMZ to support DMZ feature. |
|----------------|---|

| | |
|------------|--------------|
| PSM | Enabled PSM. |
|------------|--------------|

| | |
|------------|---|
| PSM | Added AT+QINDCFG="psm",1/0 to enable/disable URC reporting entering PSM or waking up from PSM. |
|------------|---|

| | |
|------------------------|---|
| QuecLocator 2.0 | Added AT+QLBS to support for automatic positioning via WIFI. |
|------------------------|---|

| | |
|----------------|--|
| SIMCARD | Supported dual card single standby to be enabled/disabled by AT+QDSIMCFG="dsss",1/0 . |
|----------------|--|

| | |
|------------|--|
| SMS | Added AT command AT+QCMRC to set the number of retries after SMS sending fails. |
|------------|--|

| | |
|----------------|---|
| GENERAL | Added AT+QCFG="dfn" to configure the default bearer APN. |
|----------------|---|

EC200UCNAAR02A08M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

/

EC200UCNAAR02A07M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

| | |
|--------------|----------------|
| AUDIO | Supported UAC. |
|--------------|----------------|

| | |
|------------|---|
| FTP | Added a buffer for FTP resuming download. |
|------------|---|

| | |
|----------------|---|
| NETWORK | Added AT command AT+CSCON to get RRC connection status or enable reporting an URC to indicate RRC connection status. |
|----------------|---|

| | |
|-------------|-----------------|
| SMTP | Supported SMTP. |
|-------------|-----------------|

EC200UCNAAR02A06M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

/ /

EC200UCNAAR02A05M08

| Item | Brief Description |
|------|--|
| FTP | Added AT command AT+QFTPCFG="data_address" to configure the FTP data connection address selection. |
| GNSS | Added AT command AT+QGPSCFG="beidouneameaformat" to control the output format of Beidou NMEA sentences. |

EC200UCNAAR02A04M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

/ /

EC200UCNAAR02A03M08

| Item | Brief Description |
|------------|---|
| TCP/UDP | 1. Added AT command AT+QICFG="send/auto" to set the heartbeat packet data to be sent periodically. 2. Added AT command AT+QICFG="recv/ignore" to set to filter the specified data. |
| Voice Call | Added AT command AT+QCFG="tone/incoming" to support customers to customize incoming call ringtones. |
| GENERAL | Added AT command AT+QCFG="qcsq/rssi/negative" to control whether the RSSI value obtained by AT+QCSQ is the original value. |

EC200UCNAAR02A01M08

| Item | Brief Description |
|------|-------------------|
|------|-------------------|

/ /

3.3. Improved Features

EC200UCNAAR02A13M08

| Item | Brief Description |
|------|---|
| FILE | Improved the security of simple and safe SFS storage: the new firmware version is compatible with reading SFS files of the old firmware version, and the old firmware version could not be compatible with reading the SFS files created by the new firmware version. |
| FTP | Fixed the problem that data downloaded at breakpoints would be stuck at the cache critical after the FTP cache was enabled. |

| | |
|---------|---|
| HTTP | Optimized HTTP large file PUT process to solve the problem that the actual PUT data does not match the data that needs to be PUT locally. |
| NETWORK | Optimized the response time for AT+COPS? command. |
| NETWORK | Optimized the AT+QCFG="band" command to remove the restriction that can only lock up to 5 bands. |
| NETWORK | Modified the format of the return value of AT+QCELL? . |
| NTP | Optimized the retransmission timer of NTP. |
| SIMCARD | Optimize the response time of AT+CPIN? command. |
| SIMCARD | Solved the problem that READY was abnormally returned by AT+CPIN? command executed after SIM card was removed at SMS initialization. |
| SIMCARD | Optimized the error code return of AT+CPIN? in the SIM card identification stage. |
| TCP/UDP | Fixed the problem that the data format output by AT+QIRD was incorrect in TCP/IP cache mode. |
| TTS | Fixed the problem of incorrect pronunciation of some words in TTS. |
| TTS | Adjusted the preset method of TTS resource files. |
| GENERAL | Optimized AT+CEER command to add ESM CAUSE for PDN activation failure. |
| GENERAL | Improved AT+CUSD command to optimize synchronous AT to asynchronous AT. |
| GENERAL | Optimized DNS resolution under IPv4v6 to support reporting of IPv4 and IPv6 addresses. |
| GENERAL | Fixed the problem that AT+COPS format could not be modified when the SIM card was not initialized and there was no SIM card. |

EC200UCNAAR02A11M08

| Item | Brief Description |
|---------|---|
| GNSS | Updated GNSS firmware to support more satellite positioning types. |
| TCP/UDP | Fixed the problem that the data format output by AT+QIRD was incorrect in TCP/IP cache mode. |
| TCP/UDP | Fixed the problem that in the TCP/IP buffer mode, when if the data output by AT+QIRD contains 0x00, and the data will be truncated at 0x00, resulting in incomplete data output. |

EC200UCNAAR02A10M08

| Item | Brief Description |
|------|---|
| SMTP | Optimized the SMTP PUT processing flow. |
| SMTP | Optimized SMTPS mail sending process. |

| | |
|---------|--|
| HTTP | Solved the problem that data could not be output normally if data ends with \r\n when URC output HTTP data to the serial port. |
| NETWORK | Supported connecting the usbnet automatically in GSM. |
| FTP | Solved the low probability problem of FTP request failure due to first socket closed. |
| FILE | Lifted the limit on the number of directory levels for uploading files and creating directories. |
| FILE | Fixed the low probability problem of file closing failure when opening and closing files frequently. |
| FILE | Added UFS: prefix in AT+QFLST response to list UFS files. |
| GENERAL | Optimized AT+COPS? command response time. |

EC200UCNAAR02A09M08

| Item | Brief Description |
|------|---|
| CMUX | Added AT command AT+QCFG="cmux/data/cfg" to solve the problem that GNSS NMEA sentence could not be transferred normally on the serial port using non-CMUX protocol after the serial port was set to CMUX mode. |

EC200UCNAAR02A08M08

| Item | Brief Description |
|-----------------|--|
| MMS | Limited the number of parameters for MMS related AT commands. |
| QuecLocator 2.0 | Supported judging whether the server port configured by AT+QLBSCFG="server" was reasonable. |

EC200UCNAAR02A07M08

| Item | Brief Description |
|---------|--|
| DFOTA | Corrected FOTA Task event ID. |
| DFOTA | Solved the problem of no URC +QIND: "FOTA","START" reported after turning off the FOTA upgrade related URC report. |
| HTTP | Corrected the return value format of AT+QHTTPPOST . |
| HTTP | Optimized the HTTP memory request exception handling process. |
| HTTP | Optimized the internal HTTP task event processing flow. |
| NITZ | Fixed the problem of incorrect time set by AT+CCLK (not including CTZU 3). |
| TCP/UDP | Optimized the TCPIP release process. |
| TCP/UDP | Reported NO CARRIER first when exiting from TCP transparent transmission. |

EC200UCNAAR02A06M08

| Item | Brief Description |
|------|---|
| HTTP | Solved the problem that the serial port may not work normally when AT+QHTTPSTOP executed before URC reported from AT+QHTTPGET . |
| MQTT | Optimized MQTT data analysis process. |

EC200UCNAAR02A05M08

| Item | Brief Description |
|---------|---|
| FTP | Optimized FTP related AT commands processing flow. |
| GNSS | Adjusted the value order of parameters in AT+QGPSCFG="beidouneatype" command. |
| HTTP | Fixed the problem that data to be read to the serial port by AT+QHTTPREAD may lose sometimes. |
| HTTP | Fixed the problem that there was no response from AT+QHTTPGETEX . |
| HTTP | Optimized URC reporting process after enabling auto output HTTP response. |
| MQTT | Optimized MQTT data analysis process. |
| MQTT | Optimized the AT+QMTOPEN exception handling mechanism and process. |
| MQTT | Solved the problem that there was no error reported if an extra parameter configured in AT+QMTCFG command. |
| NTP | Optimized AT+QNTP command processing flow and corrected the number of retries and retry interval. |
| SMS | Fixed the return format of AT+CMGR and AT+CMGL commands. |
| TCP/UDP | Fixed the problem that module may fail to download when the base station cached server data. |
| TCP/UDP | Optimized AT+QICFG="tcp/retranscfg" to configure the retransmission time. |
| TCP/UDP | Optimized the management for the activated PDP within the module. |
| GENERAL | Added caching mechanism for Nand flash to optimize file writing speed. |

EC200UCNAAR02A04M08

| Item | Brief Description |
|------|--|
| FTP | <ol style="list-style-type: none"> Fixed the problem that an error was reported when AT+QFTPCWD switched FTP(S) server directory. Fixed the problem that an error was reported when AT+QFTPOPEN set the IPV6 address without []. |
| FTP | Optimized the data processing flow of AT+QFTPPUT uploading files from the serial |

| | port to the server. |
|----------------------------|--|
| HTTP | Solved the problem that AT+QHTTPGET may fail to send GET requests to HTTP(S) server if the redirect occurred. |
| HTTP | Solved the problem that HTTP data download may fail. |
| TCP SSL | Solved the problem that AT+QSSLCFG configuration could not take effect before RDY reported at booting. |
| TCP/UDP | Solved the problem that under weak signal, data transfer in TCP transparent transmission mode may lose. |
| TCP/UDP | Solved the problem that the downlink data may not be received in TCP/UDP application layer. |
| EC200UCNAAR02A03M08 | |
| Item | Brief Description |
| DFOTA | Solved the problem of FOTA upgrade failure caused by incorrect file name. |
| DFOTA | Supported connection to IPv6 server and SSL certification for FTP FOTA. |
| DFOTA | Make the corresponding initialization operation when FOTA path is "/sdcard0" during FOTA upgrade. |
| FILE | Fixed the problem that the available space of "UFS" and "FOTA" obtained by AT+QFLDS="UFS" and AT+QFLDS="FOTA" was inconsistent. |
| HTTP | Solved the problem that the data length responded by the server overflowed after sending a GET request to the HTTP(S) server. |
| NETWORK | Fixed the selected network mode after using AT+COPS=1 to search network manually. |
| NETWORK | <ol style="list-style-type: none"> 1. Solved the problem that the module could not work normally when using AT+QCELLINFO to switch how to get the cell information. 2. Solved the problem that AT+QCELLINFO and AT+QENG could not be used at the same time. |
| PPP | Shorten the PPP hang-up time. |
| QuecLocator 2.0 | Solved the problem that the AT port could not work normally when obtaining location information through AT+QLBS . |
| TTS | <ol style="list-style-type: none"> 1. Fixed the problem that the module may not work normally if the text encoding in the format of UCS2 with a colon was input during TTS playing. 2. Turned off the intelligent identification digital function. |
| TCP/UDP | Solved the problem that the data output by URC may be lost due to full URC buffer under TCP push mode. |
| GENERAL | <ol style="list-style-type: none"> 1. Increased 100 ms delay for URC output at booting. 2. Solved the problem that some URCs were missing when the baud rate is set to 9600 during the DFOTA upgrade process. |
| GENERAL | Solved the problem that the published MQTT message did not echo after executing AT+QMTCFG="view/mode",0,1 . |

| | |
|----------------|---|
| GENERAL | Solved the problem of error occurred when using ATD to make a call. |
| GENERAL | Optimized URC log reporting delay time during FOTA upgrade. |
| GENERAL | Optimized the multiplexing rate for the default bearer at PDP activation. |
| GENERAL | Solved the problem that data may be lost after UART port waked up from sleep. |
| GENERAL | Solved the problem that AT port could not work normally after the module was awakened from sleep abnormally with current consumption increased. |
| GENERAL | Solved the problem that the data received via main serial port under high baud rate may be lost. |
| GENERAL | Optimized PDP activation State Machine to realize serialization management. |
| GENERAL | Optimized AT command AT+QRDY to support obtaining the initialization status of the embedded protocol stack, BT and AUDIO. |
| GENERAL | Optimized NAT function to not allow IPV6 only and NAT of one PDP to be turned on at the same time. |

EC200UCNAAR02A01M08

| Item | Brief Description |
|------|-------------------|
| / | / |

3.4. Known Issues

| Item | Bug Description |
|------|-----------------|
| / | / |

NOTE

Verification Environment is shown below. For more details, please contact Quectel technical support.
 For Windows: Win10 64 bit
 USB Driver: Quectel_5G_Windows_USB_Driver(U)_For_ECM_RNDIS_V1.0.13
 Qflash Tool: QFlash_V6.0

4. Function List

| Category | Item | Supported Version (Since) | Note |
|-------------------|-----------------|---------------------------|--|
| Basic Function | SMS | EC200UCNAAR02A04M08 | / |
| | Voice Call | EC200UCNAAR02A04M08 | / |
| | CMUX | EC200UCNAAR02A04M08 | / |
| | FILE | EC200UCNAAR02A04M08 | Supports UFS FILE only. |
| Protocol Function | TCP/UDP | EC200UCNAAR02A04M08 | / |
| | PPP | EC200UCNAAR02A04M08 | / |
| | NITZ | EC200UCNAAR02A04M08 | / |
| | FTP | EC200UCNAAR02A04M08 | / |
| | HTTP | EC200UCNAAR02A04M08 | / |
| | TCP SSL | EC200UCNAAR02A04M08 | / |
| | MQTT | EC200UCNAAR02A04M08 | / |
| | NTP | EC200UCNAAR02A04M08 | / |
| | SMTP | EC200UCNAAR02A07M08 | / |
| | MMS | EC200UCNAAR02A08M08 | Supports MMS sending only. |
| Special Function | SIM Detection | EC200UCNAAR02A04M08 | / |
| | QuecLocator 2.0 | EC200UCNAAR02A04M08 | QuecLocator2.0 is an efficient location technology developed by Quectel, while it's not free, you need pay for it if you would like to use it. |
| | DFOTA | EC200UCNAAR02A04M08 | / |
| | ECM | EC200UCNAAR02A04M08 | / |

| | | |
|----------|---------------------|---|
| RNDIS | EC200UCNAAR02A04M08 | / |
| LowPower | EC200UCNAAR02A04M08 | / |
| GNSS | EC200UCNAAR02A04M08 | / |
| SD | EC200UCNAAR02A04M08 | / |
| TTS | EC200UCNAAR02A04M08 | / |
| PSM | EC200UCNAAR02A10M08 | / |

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