

# SIM7000E Firmware Release Note

**Latest Version: 1351B09SIM7000E**

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# SIM7000E NB-IOT Cellular Engine

## 1 Preamble

This Release Note introduces SIM7000E firmware versions and briefly describes the benefits over preceding release. Also user can find differences compared to preceding release.

**New Features:** It lists features or AT commands which are newly developed compared to the preceding version.

**Improved Features:** It lists features or parameters that have been changed or improved compared to the preceding version.

## 2 Related documents

- [1] SIM7000 Series\_AT Command Manual
- [2] SIM7000\_Hardware\_Design

## Version: 1351B09SIM7000E

### [New Features]

1. Added "AT+CPSN" command to read the operator name in the SIM card.
2. Added "AT+GAUTH" command to configure the PDP authentication type of the internal TCP/IP protocol stack.
3. Added "AT+CGNSHOR" and "AT+CGNSNMEA" commands.

### [Improved Features]

1. Fixed the bug that TCP data will not be sent successfully in some cases.
2. Fixed the bug that it does not report "SEND OK" when sending data via "AT+CIPSEND" after the module runs for a period of time.
3. Fixed the bug that the remote client does not access after the module runs as a TCP server for a period of time.
4. Fixed the bug that module will crash when registering to the NB-IOT network in some cases.
5. Fixed the bug that LBS function is abnormal.
6. Fixed the bug that the module does not receive class0 flash message.
7. Fixed the bug that the <CLEANSS> parameter of MQTT has no effect after setting.

## Version: 1351B08SIM7000E

### [New Features]

1. Extended the range of parameter <content length> of command "AT+SMPUB" to "0-1024".
2. Added "AT+CRAI" command to configure release assistance indication in NB-IOT network.
3. Added "AT+CGPSNEMA" command.

### [Improved Features]

1. Fixed the bug that UART3 will output abnormal NMEA data when USB is not inserted.
2. Fixed the bug that there has no response of "AT+SNPING4".
3. Fixed the bug that GPS UART3 port does not output NEMA data.
4. Fixed the bug that the return value of "AT+CGNSCFG?" is not correct.
5. Fixed the bug that the redundant status is reported and the format is incorrect sometimes when executing "AT+CLBS=1, 1" In the NB network.
6. Fixed the bug that When connecting to TCP and not receiving data, executing "AT+CARECV=0,1024" will cause the module to restart.

## Version: 1351B07SIM7000E

### [New Features]

1. Added transparent transmission mode function.
2. Added the network access function under Linux.
3. Added PING function.
4. Added "AT+DLYRI" command to control the delay time before indicate RI when using URC.
5. Added "AT+CMCFG=4" command that can query activated MBN name.
6. Added "AT+HTTPTOFS" command to configure timeout of HTTP request.
7. Added "AT+HTTPTOFSRL" command to get downloading file length and state.
8. Added "AT+CPSMCFG", "AT+CPSMCFGEXT", "AT+CPSMRDP" and "AT+CPSMSTATUS" commands.
9. Added "AT+CGNSRTMS" command to configure GNSS NMEA out frequency.
10. Added URC report "+CASTATE" and "+CADATAIND".

### [Improved Features]

1. Fixed the bug that FOTA upgrade failure when the differential package is large.
2. Fixed the bug that module can't connect AWS server.
3. Fixed the bug that executing ATD\*99\*\*\*1# returns ERROR if UART DTR is high.
4. Fixed the bug that "AT+CNUM" command does not read Verizon SIM card.
5. Fixed the bug that "AT+CACLOSE" command will block the serial port in some cases.
6. Fixed the bug that "AT+GNSINF" only show the number of GPS stars.

## Version: 1351B06SIM7000E

### [New Features]

1. Added "AT+CARECV" command to receive data via an established connection.
2. Added "AT+CASRIP" to show remote IP address and port when received data.
3. Added PING function support IPV6.
4. Added CoAP function.
5. Extended "AT+CNMI=2,2" to for flash messages are not discard or rejected.
6. Added command AT+CRATSRCH that can configure the period of searching better.

### [Improved Features]

1. Fixed the bug that the unsolicited result code(AT+CREG=2) includes extra space.
2. Fixed the bug that there will return ERROR executing "AT+COPN".

3. Fixed the bug that the unsolicited result code (+CGREG) includes blank line after switching UE mode.
4. Fixed the bug the response of "AT+CPOL?" includes blank line.
5. Fixed the bug that executing "AT+MIPLDELETE=0" twice can cause UE to crash.
6. Fixed the bug that executing "AT+CRATSRCH=20,20" does not configure successfully.
7. Fixed the bug that direct GNSCOLD/HOT/WARM cannot output NMEA in USB NMEA.
8. Fixed the bug that DCD is pulled high after editing SMS if exiting the data mode when transparent transmission.
9. Fixed the bug that FOTA will reset when MODEM is upgraded in some cases.
10. Fixed the bug that "AT+CMCFG=1" does not auto-select MBN according to SIM ICCID.
11. Modified "AT+CMCFG" command that can activate or deactivate MBN by MBN name.
12. Fixed the bug that the USB AT port will be unable to input after the GPS is enabled, turn off the NMEA's USB port and wait for a while.
13. Fixed the bug that the write data will double when writing files using the AT command.
14. Fix the bug that the RSRP value of neighbor cells by "AT+CENG" sometimes is not right.
15. Fix the bug that the length of code (AT+CPIN) does not be more than 8.
16. Fix the bug that the pin code of "AT+CPIN" does not include character.
17. Fixed the bug that the read and report function of SSL in some cases.
18. Fixed the bug that no continuing transfer from breaking point when <mode>=1 of "AT+CFSWFILE" command.

## Version: 1351B05SIM7000E

### [New Features]

1. Added "AT+CNACTCFG" command.

### [Improved Features]

1. Fixed the bug that the text message containing special characters will send fail or appear as gibberish.
2. Fixed the bug that USB SUSPEND can't get into sleep mode under Linux computer.
3. Fixed the bug that executing ATH returns error if SIM card locking.
4. Fixed the bug that executing AT&W returns error.
5. Fixed the bug that executing AT&C or AT&D or AT&V returns error if not inserting SIM card.

## Version: 1351B04SIM7000E

### [New Features]

1. Added LBS function.
2. Added TCP/UDP application supported SSL and IPV6.
3. Added HTTPS function.
4. Added STK function.
5. Added backup function.
6. Added "AT+CNUM" command.
7. Added "AT+CEDRXS" command.
8. Added "AT+CNACT" command.
9. Added "AT+CEDUMP" command.
10. Added "AT+CNBS" command.
11. Added "AT+CNDS" command.
12. Added "AT+CENG" command.
13. Added "AT+HTTPTOFS" command.
14. Extended the parameter <mode> of AT command "AT+CGNSCFG" to "0-2" for GNSS NMEA data output to UART3.
15. Added test command of "AT+GOI".

### [Improved Features]

1. Fixed the bug that MQTT function will cause error in some cases.
2. Fixed the bug that the module does not enter command mode through DTR when PPP connecting or data mode.
3. Changed the QCLI function to on by default.
4. Fixed the bug that there will return error when executing "AT+COPS" or "AT+GCAP" in SIM PIN state.
5. Fixed the bug that there has an incorrect return value when executing "AT+CSGS=?" command.

**Version: 1351B03SIM7000E**

### [New Features]

1. Added FTP function.
2. Added NTP function.
3. Added GNSS XTRA function.
4. Added "AT+HTTPTOPS" command to download file to AP file system.
5. Added "AT+CNACT" command.
6. Added "AT+CRRCSTATE" command to query RRC state.
7. Added "AT+CAPNMODE" command to set APN manually.
8. Added "AT+CIPOPTION" command to enable or disable TCP nagle algorithm.
9. Added "AT+CBANDCFG" command to configure CAT-M or NB-IOT band.

### [Improved Features]

1. Fixed the bug that there has no "CLOSED" reported when executing command "AT+CIPRXGET".
2. Fixed the bug that the return format is not correct when executing command "AT+HTTPPARA?".
3. Fixed the bug that the value of command "AT+CNETLIGHT" does not be saved.
4. Fixed the bug that the return result of command "AT+CGREG?" is not correct in fly mode in some cases.
5. Fixed the bug that the result of command "AT+CNSMOD?" is incorrect.
6. Fixed the bug that there has no return value when executing command "AT+CMCONN" if PDP has not been activated.
7. Fixed the bug that the PPP connection does not be disconnected through command "ATH".
8. Fixed the bug that the return result of command "AT+CGNSPORT?" or "AT+CGNSTST=?" is not correct.

### Version: 1351B02SIM7000E

#### [New Features]

1. Added AT commands of MQTT and COAP for ALIBABA.
2. Added QAPI interface for ALIBABA.

#### [Improved Features]

1. Fixed the bug that the baud rate does not be set to auto-bauding(AT+IPR=0).
2. Fixed the bug that the return value of "AT+HTTPPARA=?" or "AT+HTTPACTION=?" is not correct.
3. Fixed the bug that the relative parameters do not reset to initial value when HTTP service has been stopped.
4. Fixed the bug that the data has got through "AT+HTTPREAD" command is not complete.

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