

SIM900A DL Firmware Release Note

Latest Version: 1137B13SIM900A32_ST_DL

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SIM900A GSM Cellular Engine

1 Preamble

This Release Note introduces SIM900A 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] SIM900 AT Command Set, V1.05

[2] SIM900A Hardware Design, V1.01

Version: 1137B13SIM900A32_ST_DL

Differences compared to version “1137B12SIM900A32_ST_DL”.

[New Features]

1. Added "AT+CIPTKA" command to set TCP keep alive parameters.
2. Added AT command “AT+CADDFORBID” to manage the list of limited frequency point. e.g. =0 means closing this function. =1 means adding current frequency point to the limit list. =2 means deleting the special frequency point.
3. Added “AT+CIPOPTION” command to configure TCP Nagel algorithm.

[Improved Features]

1. When processing the command "AT+CGCS?", it doesn't return the result in a new line.
2. Changed the AT command "AT+CGCLASS="CG"". If no SIM card is detected, it will return error when executing the command.
3. Changed the AT command "AT+CRNQP", when executing "AT+CRNQP=2", it will be forced to scan the network in the full frequency.
4. Solved the problem that, when the Engineering Mode is switched on by +CENG command, the URC report of network information is incomplete.

Version: 1137B12SIM900A32_ST_DL

Differences compared to version “1137B11SIM900A32_ST_DL”.

[New Features]

1. Added "AT+CQUICKPDP" command, if it is enabled, T3380 will be changed from 30s to 8s, T3390 from 8s to 6s.
2. Added "AT+CLNWPLMN" command to lock the MCC and MNC number of a specified mobile operator.
3. Added "AT+CELLFORBID" command to set more than four certain Arfcn, which is not allowed to select. The command affects only after the module resets.
4. Added the command "AT+CTBURST" to support continuous rapid data transmission.
5. Added GPRS call multi instances function to support three multi instances when making GPRS calls, a failure activation of GPRS connection can not affect the next time activation.
6. Added a new parameter to command "AT+CFUN" to indicate the final CFUN status.

For example, the command "AT+CFUN=0,0,1" means executing the command "AT+CFUN=1" after executing "AT+CFUN=0".

[Improved Features]

1. Modified the scope of parameter <T1> of CMUX command to "1-254".
2. Modified FTPSCONT read command by adding a blank line before returned "OK".
3. Solved the problem that when executing "AT+CMMSSSENDCFG" write command, parameters that are not entered will be changed to default values.
4. Solved the problem that the +CSGS parameter will not be saved after the module resets or powers off.
5. Solved the problem that when executing "AT+CEMNL=1", it always returns the URC "operation is not allowed", even though CEMNL mode is enabled successfully.
6. Solved the problem that when setting the White List, if a phone number has a prefix +86, it will return error.
7. Solved the problem that when setting the White List with a phone number which has more than 40 characters time after time, the phone numbers may be saved wrong.
8. Solved the problem that, when executing "AT+CENG=2,2", it will return error, but it also sends the URC report of network information incessantly, and can not stop after executing the command "AT+CENG=2".
9. When processing "atd*988#", change the data service mode from gprs to ussd.
10. Changed the command "AT+NETLOCK" to add the password function.
11. Changed the AT command "AT+CLDTMF" to support remote dtmf tone, the scope of <basicdur> is extended to (40-500), the supported ascii chars add up E(1400HZ),F(2300HZ),G(1000HZ), reference command is: +CLDTMF: (1-100),(0-9,A,B,C,D,*,#,E,F,G),(40-500),(0,1,2).
12. Added audio and video file types to MMS attachment types, the AT command "AT+CMMSDOWN=?" can query the supported audio and video types.
13. Solved the problem that, if the MMS title has more than 15 Chinese characters, the MMS content what the receipt receives is wrong.
14. Solved the problem that, after some certain sms setting , +cscs, +csmp, the module will reset if sending sms with more than 160 bytes.(e.g. AT+CSCS="UCS2" AT+CSMP=49,5,0,0).
15. Changed the AT command format AT*PSGPRS to AT+CGCS, you can query the GPRS timeslot and Coding scheme in real time.
16. Changed the scope of parameters of the following AT commands. AT+CIPUDPMODE, AT+CIPSTART, AT+CLPORT, AT+CIPSERVER.

17. Changed the return strings of "AT+CBST=?" command.
18. Solved the problem that, after executing "AT+CNMI=2,0" and "AT+CSMP=,,,241", the module also gives tips when it receives new messages.
19. Solved the problem that, when executing the command "AT+CMSS" or "AT+CMGD" after "AT+CMSS" command is executed, the module will be blocked.
20. Solved the problem that, after the module powered on, the first call cannot work in half duplex mode.
21. Added "AT+CIPSTIMER" command to set a timer when activating or deactivating a PDP connection. The scope of the time is from 90 to 255.

Version: 1137B11SIM900A32_ST_DL

Differences compared to version "1137B09SIM900A32_ST_DL".

[New Features]

1. Support of network "460 20" in the query result of "AT+COPS?" command for customer TIETONG.
2. Added "AT+CSGS=0/1" command, if it is enabled, the net-light will be enter into 64ms on/300ms off state in the connection of Email, TCP/IP, UDP/IP.
3. Added "AT+CNITZNN" command to disable NITZNN function.
4. Added "AT+HTTPSTATUS" command to require the state during data transmission process.
5. Added a third parameter to TEST command "AT+CLDTMF".
6. Supported the data rate of 4800 bps for CBST command.
7. Added "HTTPSTATUS" test command.
8. Supported the voice coding type value "17": AMR-FR/AMR-HR/EFR/FR/HR of "AT+SVR" set command.

[Improved Features]

1. Solved the problem that if user input data during the period that the module is outputting large amounts of data in TCP mode, it may cause data loss or some other problems.
2. Solved the problem that the audio channel was relatively slow when user answered the call by ATA command in some special condition.
3. Resolved the problem that in some server, error message will return when user execute

"AT+FTPSIZE" command.

4. Resolved the problem when the module get and continuously read the data from the URL to which large data was uploaded, the module may restart.
5. Resolved the problem that there was no response when user using HTTPGET to get some URL.
6. Solved the problem in adaptive low rate situation that when user uses FTPGET to obtain data, some URC will be inserted into the received data.
7. Solved the problem that when CGCLASS="CC" was set, "AT+CGATT?" command could not be executed.
8. Solved the problem that the command "AT+CR99=12511" cannot be set. Now it can be achieved by setting "AT+CR99=0/1", the read result required by "AT+CR99" will be "0x12511/0x12510".
9. Solved the problem that CGREG state is still 0 when the module attached GPRS service.
10. Solved the problem that after "ATV0" is set, a needless value "4" will be shown when "ATD>1;" was executed.
11. Solved the problem that executing "AT+CSIM=42,"A088000010FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF"" will return error.
12. Solved the problem that executing CRSM command will lead to data loss.
13. Extended the maximum length of FTPGETPATH and FTPPUTPATH to 256 bytes.
14. Unified the format of read commands: "AT+CIPSCONT?","AT+FTPSCONT?","AT+HTTPSCONT?", a space must be after the colon.

Version: 1137B09SIM900A32_ST_DL

Differences compared to version "1137B08SIM900A32_ST_DL".

[New Features]

[Improved Features]

1. Resolved the problem that after "ATV0" was set to all channels in MUX mode, "ATV1" command would be invalid to all channels except the first one.
2. Solved the problem that "AT+CGATT?" option was not allowed after "AT+CGCLASS="CC" was set.

3. Solved the problem that the module would not report current state via "+GREG" indication after "AT+CFUN=4" was set.
4. Modified the scope of parameter <index> of "AT+SPWM" command to "0-2".
5. Solved the problem that the value of parameter <SQ> of EXUNSOL command was not saved after reset.
6. Solved the problem that "+CGREG" and "+CREG" reported error information after "AT+CFUN=0" was set.
7. Resolved the problem that while an SMS was coming in, sending SMS might cause serial port blocked in some special cases.

Version: 1137B08SIM900A32_ST_DL

Differences compared to version "1137B05SIM900A32_ST_WASION".

[New Features]

1. Added a parameter of HTTPPARA that customer can set http timeout period.
2. Added a new AT command "AT+CIPTXISS" of TCP function. If it is set to 1 (enabled), the module cannot respond to AT commands when TCP is sending data to this port, the default value is 0 (disabled). It has no effect in transparent mode when it is enabled.
3. Added a new function of GSMBUSY command. By setting "AT+GSMBUSY=2" user can reject all the voice calls but allow CSD calls to access.
4. Added EGSM_MODE support to optimize "AT+CBAND" command and increase software compatibility.
5. Added "AT+CMGS=">index"" function to simplify short message sending operation.
6. Added "AT+CEXTERNTONE" command to switch on/off audio function of MIC.
7. Added a parameter of HTTPPARA command that customer can set http context type.
8. Added "AT+CUSACC" command to accelerate uart speed.
9. Added "AT+CCHGMODE" command to acquire whether the module is charging while power off.
10. Added "AT+FTPDELE" command to delete file.
11. Added "AT+FTPSIZE" command to require the size of gain file.
12. Added "AT+FTPSTATE" to read the state of FTP session.1 means in the FTP session,0 means not in the FTP session.
13. Added "AT+CWHITELIST" command to support white list function, only the number

from the list is allowed to access, other numbers will be rejected directly without incoming call ring and any hints. It can set 30 numbers at most.

[Improved Features]

1. Solved the problem that the module regarded the GPRS not updated as successfully attached mistakenly. Now it can report the real time state of CGATT.
2. Modified the digital gain set problem of "AT+AUDG" command.
3. Solved the problem that SIMCard cannot be recognized after read or delete SMS in "TIM" card.
4. Further improved the command "AT+CIPTXISS=1" to prevent the response of AT command mix in TCP data.
5. Solved the packet loss problem in mux mode during the PPP dial process in LINUX platform.
6. Solved the problem that CTS varied when user sent or received AT command with no flow control.
7. Solved the problem raised by Shenzhen customer that some special SIM card could not be recognized by the module.
8. Solved the problem that sending data would be failed if user input the data immediately after the ">" was shown.
9. Solved the problem that the voltage of 1.8v SIM card is still 3v after operating "AT+CFUN=1" operation in some special cases.

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