P1_0_0_26

Customer Release Note

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1 Introduction

1.1 Scope of this document

This document covers issues that affect carriers and end users.

1.2 Audience of this document

The audiences include System engineering team, certification team and customers of Sierra Wireless.

1.3 New Features / Enhancements

Feature	Description
NA	NA

2 Abbreviations and definitions

Abbreviation/Acronym	Definitions
NA	NA

3 Related documentation

Ref. #	Doc. #	Document title
NA	NA	NA

4 Compatibility

Hardware compatibility

Airprime compatibility list
SL8090 / SL8092 / MC8090

Software compatibility

Component	Version
Firmware	P1_0_0_26
Open AT OS	Not support
Location Library	NA
eCall inbandModem Library	NA
Security Library	NA
Internet Library	NA
Extended AT Application	NA

5 Software Release Description

5.1 Release identification

Component	Revision
Boot loader	SIERRA_BOOT_P1.0.0.26.cwe
Application	SIERRA_P1.0.0.26.cwe
Date of generation	2014/12/12 17:18:35
Binary Size	SIERRA_BOOT_P1.0.0.26.cwe (536,936 bytes) SIERRA_P1.0.0.26.cwe (19,976,592 bytes)
Checksum	
IMEI SV	11
Qualcomm Stack Version	AMSS 6600 1.5.77 (M6600ASCAUTSZ1577 – Thin UI) SBA_ M6600ASCAUTSZ157705 SBA_ M6600ASCAUTSZ157710 SBA_ M6600ASCAUTSZ157731 SBA_ M6600ASCAUTSZ157738 SBA_ M6600ASCAUTSZ157751 SBA_ M6600ASCAUTSZ157756 SBA_M6600ASCAUTSZ157756_SR1368683_TESTSBA_10thDEC SBA_M6600ASCAUTNZ157731_01366046_TESTSBA_16thDEC2013 SBA_M6600ASCAUTSZ157756_1368683_CR399531_TEST_21stJAN2014
USB Host Version	Support USB1.1 and USB2.0

5.2 Released Files and Download Processes

Download Option	Files
SIERRA_BOOT_P1.0.0.26.cwe	Boot loader
SIERRA_P1.0.0.26.cwe	AMSS Application
P1.0-Release-13-P1_0_0_26bt-P1_0_0_26ap.exe	OneClick to upgrade Boot & AMSS application
P1.0-Release-13-P1_0_0_26bt-P1_0_0_26ap.zip	Compressed OneClick

5.2.1 Download the entire necessary upgrade files

Download the files and follow any additional instructions from the restricted access SL SharePoint website:

From: https://swiextranet.sierrawireless.com/Products/SL%20Series/default.aspx
Please contact your Sierra Wireless representative for access information.

5.2.2 Supported Operating Systems

This software and firmware package supports the Sierra Wireless AirPrime SL809x Series on the following Microsoft Operating Systems:

- Windows XP SP3 (Service Pack 3 or higher)
- Windows Vista SP1 (Service Pack 1 or higher)
- Windows 7

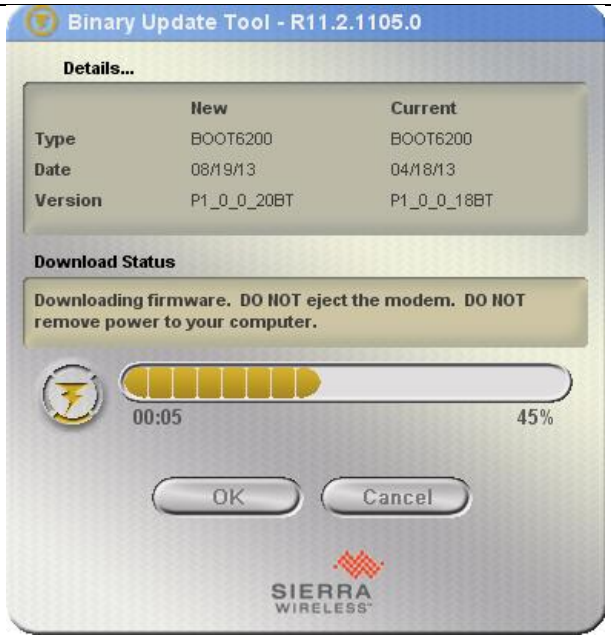
5.2.3 Upgrade Instructions

Sierra Wireless firmware upgrades are provided in a One-Click tool, which contains the firmware and download tool bundled in a self-extracting executable. Before starting an upgrade, please ensure the following:

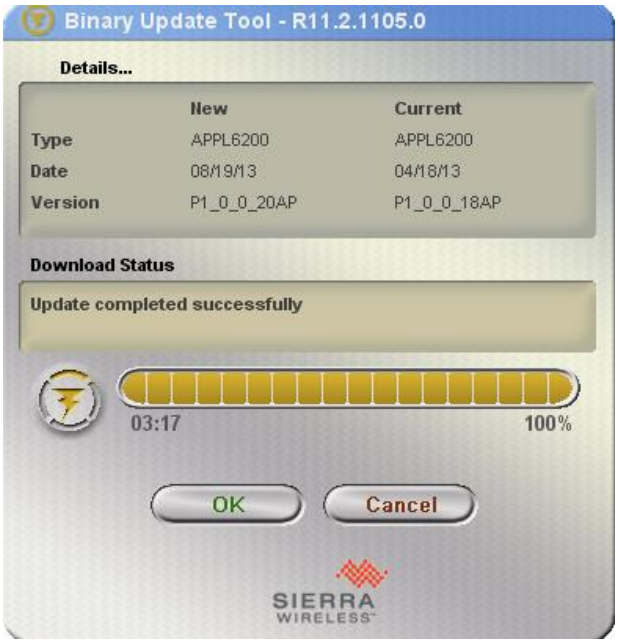
- The host computer is connected to an AC power supply, or has at least 30 minutes of battery life remaining
- The device to be upgraded is powered and operating normally
- All applications which communicate with the device, such as Watcher, Hyper-terminal, etc. are closed

Steps:

1. Navigate to the folder in the current release containing the folder named “Firmware” and open it
2. Open the folder named “P1.0-Release-13-P1_0_0_26bt-P1_0_0_26ap.exe” and click on the executable within that folder to start the BinUpdater tool and download the firmware automatically.
3. When BinUpdater tool starts, the following window will appear:



NOTE: The upgrade can take up to 10 minutes to complete. Do not remove the power to either the laptop or the card until the One-Click Tool announces that the upgrade has been successful, as shown below.



NOTE 2: There can be more than one firmware image bundled with the One Click Tool. If so, then you will be asked if you want to upgrade the device once for each image. If you click Cancel instead of OK, the remainder of the download will be aborted.

NOTE 3: When a boot image is released it is usually bundled with the application firmware within the same OneClickTool executable. That OneClickTool will automatically install both the boot and application images for you. If you intend to perform repeated download stability tests, please use the oneclick tools with just the Application image.

5.2.4 Binary Files

If you are using binary CWE files to update your module, your platform must be setup to handle these files. Use the method that you have setup for your platform in order to update the module.

5.3 Software Tools Versions

S/W Tools Name	Version	Resource file
BinUpdater	R11.2.1105.0	\\jasmine2\Projects-1\Engineering\HostSW\15 - External Release Packages\BinUpdater\BinUpdater-R11.2.1105.0

6 Software Changes Description

6.1 Validated Corrections / Improvements

Description	Fixed in
Fixed the bug that modem may lost network for over 10 minutes	P1.0.0.26
Fixed Modem returns empty SCA (+CSCA) after ATZ sent	P1.0.0.26
Added AT command AT!FMSTATS	P1.0.0.26
Added the feature of EFS corruption detection and recovery	P1.0.0.26
Fixed DTMF failed to send when dial Docomo special number 113	P1.0.0.26
Update TS25 to 2014-10-20	P1.0.0.26
Update SVN from 10 to 11	P1.0.0.26
Fixed +CMTI/!SWICALLPROG missing when wake by incoming SMS/voice call	P1.0.0.26
Increase MAX length of outgoing USSD length to 170 (UCS2 encoding)	P1.0.0.26
Fix the bug that failed to read EFmbdn by +CRSM on ATT SIM	P1.0.0.26
Fixed a GPS fix losing issue	P1.0.0.23
Implemented HSM new requirements for Host sleep/wake feature	P1.0.0.23
Increase SVN number and upgrade SE13	P1.0.0.23
Fixed an issue where Ec/Io value couldn't be updated for a long time.	P1.0.0.23
Added missing RF items into nvfactory	P1.0.0.22
Added an AT command !RIND to enable/disable PS restriction indication	P1.0.0.22
Disabled AMR-WB feature	P1.0.0.22
Fixed an short length PING failure issue	P1.0.0.22
System mode doesn't update after handover from GSM to WCDMA	P1.0.0.21
Modem cannot send SMS when GPRS connected	P1.0.0.21
Supported !CUSTOM="ISVOICEN",2 to disable/enable voice functionality	P1.0.0.21
Changed protect level of !NVENUM/!NVSPCODE from 3 to 2	P1.0.0.21
Updated the SE13 list(21 Oct , 2013)	P1.0.0.21
Disabled data retry feature to meet Softbank's requirement	P1.0.0.21
Supported CTM for TTY	P1.0.0.21
Removed the incorrect change for BZ36907	P1.0.0.21
Fixed an issue that maximum allowed UL Tx power function didn't work at Band1&Band8	P1.0.0.21
Increased the maximum USSD string length to 184	P1.0.0.21
Merged SBA_M6600ASCAUTNZ157731_01366046_TESTSBA_16thDEC2013 to resolve USB suspend/resume stress testing issue	P1.0.0.21
Fixed an issue that power off didn't work properly	P1.0.0.21
AVRXVOLDB settings ignored in handset profile after reset	P1.0.0.20
Fixed an issue where AT port would be blocked when making voice&data call at the same time with +COLP=1	P1.0.0.20
Fixed an issue where +CSQ value was inconsistent with !GSSTATUS RX level (dBm) value	P1.0.0.20
Fixed an issue where AV profile couldn't be set back to profile 0 from profile 7	P1.0.0.20
Fixed an issue where +CPBR=1 response mismatched	P1.0.0.20
Fixed an issue where some GPS time parameters couldn't be injected into GpsOne system	P1.0.0.20
Fix an crash issue when MO PDP and MT PDP call was initiated simultaneously	P1.0.0.20
Fixed an issue where dialup with PDP-PPP type crashed	P1.0.0.20
Change call state for !SWICALLPROG from incoming to waiting when there are held calls but no active calls on receiving a new call	P1.0.0.18
Fix the issue that non-voice calls are counted into call sequence number.	P1.0.0.18

Fix the issue that +CIEV can't be triggered when +CMER is set to 1,0,0,1,0	P1.0.0.18
Change AT^HVER implementation to make it same as SL909x	P1.0.0.18
Add voice mail notification feature	P1.0.0.18
Ignore ADF DF2 DF3 polling error	P1.0.0.18
Support AT+CPIN2	P1.0.0.18
Removing +CMTI for VMI and allow +WVMI to wake up USB BUS	P1.0.0.18
Update SE13 list	P1.0.0.18
Add audio profiles for I2S interface	P1.0.0.15
Added NMEA port auto tracking	P1.0.0.14
Added initial value for Dual-mic	P1.0.0.14
Corrected The DTMF tone does not stop playing after the call is terminated	P1.0.0.14
Corrected Modem crash after AT command at!mapuart=1	P1.0.0.14
Corrected Busy tone always can be heard after hang up from MT device	P1.0.0.14
Added IPv6 on PAD	P1.0.0.12
Added setting host post state is implemented	P1.0.0.12
Added NMEA data come from physical UART port	P1.0.0.12
Added NMEA get mode cmd is not handled	P1.0.0.12
Added IPv6 feature from MDM8200	P1.0.0.12
Added I2S support on SL8092	P1.0.0.12
Added Tx burst on indication configurable	P1.0.0.12
Enhanced stability when starting IPv4 and IPv6 data call together	P1.0.0.12
Enhanced Tx burst stability	P1.0.0.12
Enhanced factory image generation stability	P1.0.0.12
Enhanced stability when laptop resumed from standby	P1.0.0.12
Corrected Inner loop control stability in test bench for SL8092/93	P1.0.0.12
Corrected IPR value cannot be saved after reset	P1.0.0.12
Corrected GSM Tx power lower than expected after calibration	P1.0.0.12
Corrected The HSDPA category is wrong	P1.0.0.12
Corrected AT port will not work after starting GPS for a few seconds	P1.0.0.12
Changed IMEISVN to 9	P1.0.0.12
Added support for WCDMA band VI (SL8090/SL8091)	P1.0.0.8
Extended SAR back-off offset range	P1.0.0.8
Corrected AT&T certification test case failures	P1.0.0.8
Corrected AT!WPOWER and AT!GSTATUS bug	P1.0.0.8
Changed IMEISVN to 8	P1.0.0.8
Added Qualcomm firmware update packages	P1.0.0.7
Added SAR back-off support	P1.0.0.7
Added NDIS over PPP support	P1.0.0.7
Added Direct-IP for WinCE support	P1.0.0.7
Enhanced PAD stability	P1.0.0.7
Enhanced GPS stability	P1.0.0.7
Enhanced CMUX stability	P1.0.0.7
Enhanced UART flow control	P1.0.0.7
Enhanced output power in EDGE 850/1900 in extreme conditions	P1.0.0.7
Enhanced extreme temperatures support	P1.0.0.7
Corrected inner loop RF power test failure	P1.0.0.7
Corrected corporate personalization enabled crash	P1.0.0.7
Corrected UART buffers memory leakage	P1.0.0.7

Corrected PTCRB and AT&T certification test case failures	P1.0.0.7
Changed default PCM configuration to padding enabled	P1.0.0.7
Changed IMEISVN to 7	P1.0.0.7
Added support for sleep mode in CMUX mode	P1.0.0.5
Enhanced GPS stability	P1.0.0.5
Corrected certification test case failures	P1.0.0.5
Changed IMEISVN to 4	P1.0.0.5
Added support for firmware download via UART	P1.0.0.4
Added support for AT!RESET and AT!MAPUART on PDP ports	P1.0.0.4
Added support for BUZZER_EN output as a GPO	P1.0.0.4
Added support for mute and audio volume control in Watcher	P1.0.0.4
Added support for 4-wire UART	P1.0.0.4
Added support for PAD and auto-connect and connection watchdog	P1.0.0.4
Added support for AT!SWICALLPROG	P1.0.0.4
Added support for AT!AVRXPCMIIRFLTR and AT!AVTXPCMIIRFLTR	P1.0.0.4
Enhanced sleep mode	P1.0.0.4
Enhanced audio AT commands	P1.0.0.4
Enhanced GPS stability	P1.0.0.4
Enhanced UART control signals behavior	P1.0.0.4
Enhanced AT!DIO and AT!DIOCFG stability	P1.0.0.4
Enhanced PAD stability	P1.0.0.4
Enhanced CMUX stability	P1.0.0.4
Corrected GCF/PTCRB test case failures	P1.0.0.4
Corrected DUN connection failure on PDP1 and PDP2	P1.0.0.4
Corrected PPP frames in AT mode correction	P1.0.0.4
Corrected AT commands syntax errors	P1.0.0.4
Changed POWER_ON_N pin from edge to level sensitive	P1.0.0.4
Changed NV settings for RF performance	P1.0.0.4
Changed IMEISVN to 3	P1.0.0.4
Removed AT!PCOFFEN=2 functionality	P1.0.0.4
Removed unsupported audio AT commands	P1.0.0.4

7 Troubleshooting

The following sections describe troubleshooting information when using the AirPrime when using in a live network and when using with a test box.

7.1 Ciphering/Integrity

If you're not attaching, check your ciphering settings. The UE needs to use the same settings as the network/test set. Generally, live networks will have ciphering/integrity enabled. Test sets may have them enabled or disabled, but it is common for test sets to leave it disabled unless explicitly testing that feature.

The AT command is noted below:

AT Command	Description
AT!GCIPHER=X	Set the card to support integrity and ciphering with the following settings: X = 0, Ciphering OFF, Integrity OFF X = 1, Ciphering ON, Integrity OFF X = 2, Ciphering ON, Integrity ON
AT!GCIPHER?	Query the GCIPHER settings.

7.2 Crash Investigation

Should the UE crash there are a number of different means to provide useful feedback to Sierra Wireless for resolution of the issue.

7.2.1 Full memory dump

This is the preferred process because it captures the most crash information.

7.2.1.1 Configuring the UE for crash dump capture

This must be done to enable or disable the crash capture feature on the UE. This configuration is stored in NV so it is persistent across power cycles / power removal. The UE must be reset after changing the setting before the changes take effect.

To enable crash dump capture
AT!EROPTION=0

To enable UE reset upon a crash (default behaviour)
AT!EROPTION=1

7.2.1.2 Capturing a crash dump

1. Wait for / cause a crash to occur
2. Close connection manager software (to release the com port)
3. Run SwiMemDebug
4. Click Start to initiate crash dump collection. If this fails, the application likely cannot open the com port (see step 2)
5. Once 100% is reached, the crash dump collection is complete. Click Reset to reset the modem (optional), and Exit to exit the program
6. Crash files will be in the same location as SwiMemDebug. Zip up the crash files and label the zip file with a unique name (date/timestamp is suggested) and send the zip to Sierra Wireless for analysis

7.2.1.3 Mini Dump

If a crash occurs, the summary of why the crash occurs is saved in memory. The command following command will display the crash summary:
AT!GCDUMP

Note that this crash summary is lost once power is removed from the device (or manually cleared via AT!GCCLR).

7.2.1.4 Error Listing

The AT!ERR command will display “points of interest” that have occurred in the UE. These are not crashes, but are often used by developers to highlight areas they wish to examine.

7.2.2 Debug Tools

Sierra Wireless devices provide support for trace tools such as QXDM or the Sierra Wireless log-gathering tool. Please contact your Sierra Wireless representative for the logger tool and the installation instructions

8 Certification Description

This version has passed the PTCRB certification

9 Restrictions and Additional Information

Issue ID	Description (What/When)	Impacted Domain	Impacted Sub-Domain
None	None	None	None

9.1 Vista Recommendations

For optimum performance and stability in Microsoft Vista, it is recommended that USB Selective Suspend be disabled. In order to disable Selective Suspend properly, follow both procedures (9.1 and 9.2) below:

9.1.1 Disabling Global Selective Suspend

The following procedure will disable the global selective suspend setting in Microsoft Vista.

1. Open the Control Panel
2. Select the Power Options applet
3. For whichever item is selected as the current Power Mode (ie: Maximum Battery Life), select Change plan settings
4. Select Change advanced power settings
5. Expand USB Settings
6. Expand USB Selective Suspend settings
7. Change the settings for Plugged in to DISABLED
8. Change the settings for On Battery to DISABLED
9. Close the Power Options applet

9.1.2 Disabling Device Specific Selective Suspend for Generic Sierra Wireless Drivers

The following procedure will disable the device specific selective suspend setting in Microsoft Vista when using a device configured with the generic Sierra Wireless drivers:

1. Open a notepad
2. Type the following text into notepad

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SWUMX3C\Parameters]
"IdleDetect"=dword:00000000
"UsbSelSus"=dword:00000000
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SWUMX3E\Parameters]
"IdleDetect"=dword:00000000
"UsbSelSus"=dword:00000000
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SWUMXA3\Parameters]
"IdleDetect"=dword:00000000
"UsbSelSus"=dword:00000000

3. Save the text file you just created with the filename disableSelSus.reg to the Desktop
4. Exit Notepad
5. Double-click the file you just created (disableSelSus.reg)
6. When prompted by Vista to allow this information to be added to the registry, select Yes.
7. Select OK
8. Reboot the PC