



# **MC8704 T3.0.6.7**

## **Customer Release Note**

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# Document History

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## 1 Introduction

### 1.1 Scope of this document

This document is for announcing that the external formal build has been released for MC8704 product of MDM8200A platform and elaborate what issues have been fixed and the enhancement/new feature in this formal release.

### 1.2 Audience of this document

Customer can get related information from this external formal release note to decide if need apply this build to integrate into their products.

### 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
This build only applies for MC8704

### Software compatibility

Component	Version
Firmware	T3.0.6.7
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_T3.0.6.7.cwe
Application	SIERRA_T3.0.6.7.cwe
Date of generation	2014/11/10
Binary Size	SIERRA_BOOT_T3.0.6.7.cwe(514KB) SIERRA_T3.0.6.7.cwe(22002KB)
Checksum	SIERRA_BOOT_T3.0.6.7.cwe (FBD709D9E140CD73CF5A0FEFB56D9E80) SIERRA_T3.0.6.7.cwe (20211038500FE837041B2FF27C643A73)
IMEI SV	16
Qualcomm Stack Version	M8200CFACPASZD30550
USB Host Version	Support USB1.1 and USB2.0

### 5.2 Released Files and Download Processes

Download Option	Files
SIERRA_BOOT_T3.0.6.7.cwe	Boot loader.
SIERRA_T3.0.6.7.cwe	Application.
T3.0-Release11-T3_0_6_7bt-T3_0_6_7ap.xml	Configuration files which was used to create OneClick tool.



Download Option	Files
T3.0-Release11-T3_0_6_7bt-T3_0_6_7ap.exe	OneClick tool to upgrade firmware.
T3.0-Release11-T3_0_6_7bt-T3_0_6_7ap.zip	Compressed OneClick tool.

### 5.2.1 Download the entire necessary upgrade files

Download the files and follow any additional instructions from the restricted access MiniCard SharePoint website:  
 From: <https://swiextranet.sierrawireless.com/Products/MC%20Series/default.aspx>  
 Please contact your Sierra Wireless representative for access information.

### 5.2.2 Upgrade Instructions

There are two methods of upgrading a module, One-Click Tools and binary files. One-Click Tools are supplied in EXE format and are meant to run on Windows platforms such as on a PC which is connected to a MiniCard dev kit. Binary files are supplied in CWE format and may be used when the module is in the target platform. The following table summarizes the file types to use for each method.

	OneClick Tool	Binary Files
Application	T3.0-Release11-T3_0_6_7bt-T3_0_6_7ap.exe	SIERRA_BOOT_T3.0.6.7.cwe
Boot loader	Included in above	SIERRA_T3.0.6.7.cwe

### 5.2.3 Windows One-Click Tools

This software tool supports the Sierra Wireless MC8704 series on the following Microsoft Operating Systems:

1. Windows XP SP2 (Service Pack 2) or higher
2. Windows 2000 SP4 (Service Pack 4)
3. Windows Vista SP1 (Service Pack 1) or higher

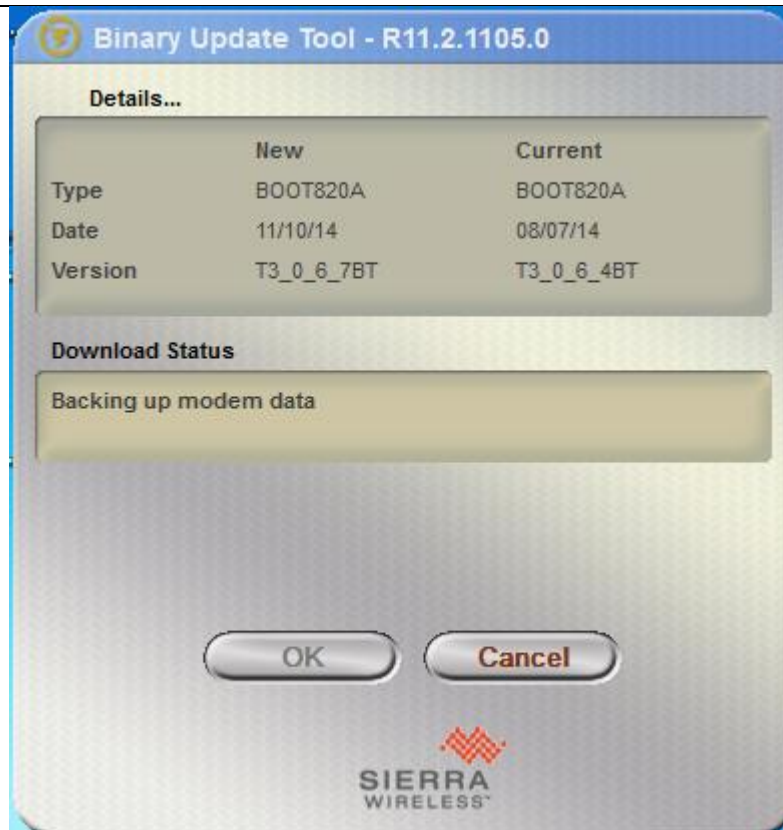
Sierra Wireless MC8705 firmware upgrades are provided in a One-Click Tool that contains the binary firmware files within it. Before you start your upgrade, please ensure the following:

- Your computer is connected to an AC power supply, or that it has at least ½ hour of battery life remaining
- Please close all active sessions such as Hyperterminal, etc. that you may have open, debug logging sessions, etc.
- Please ensure that your card is powered and operating normally

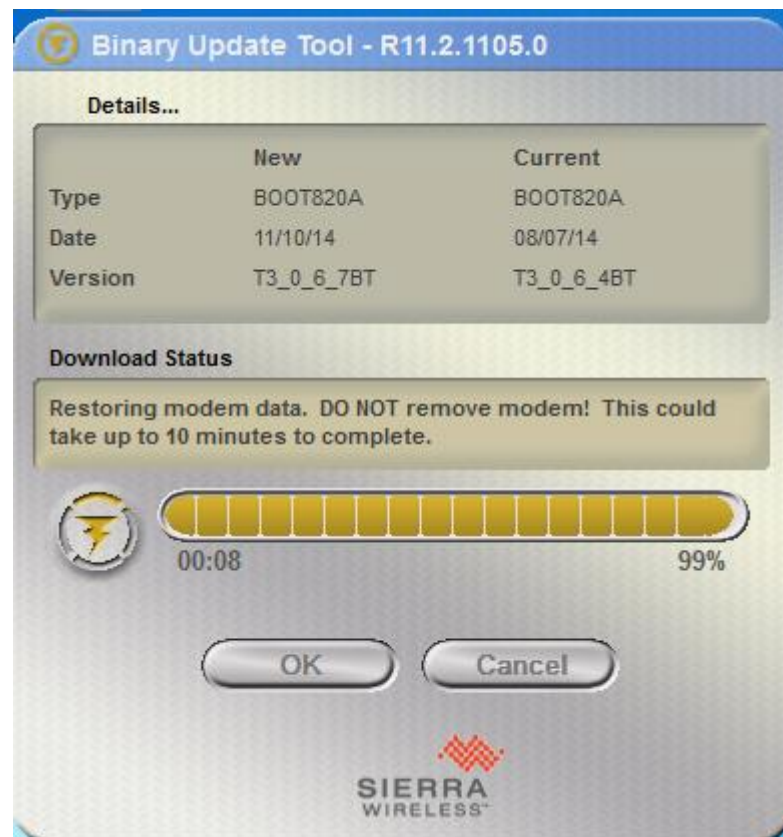
To proceed with the firmware upgrade, please follow the next steps:

1. Click on the One-Click Tool executable to start the upgrade process
2. When the One-Click Tool runs, starts you will see an image similar to the following:

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[R-1]



[R-2]



[R-3]

3. The firmware upgrade should run automatically. If not, then click OK to begin the upgrade process.

**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.



[R-4]

**NOTE 1:** When a boot image is released it is usually bundled with the application firmware within the same One-Click Tool executable. That One-Click Tool will automatically install both the boot and application images for you.

### 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	<a href="\\cnszx-fl01\Groups\Engineering\Firmware\PCtools\Host_Software\BinUpdater\BinUpdater-R11.2.1105.0">\\cnszx-fl01\Groups\Engineering\Firmware\PCtools\Host_Software\BinUpdater\BinUpdater-R11.2.1105.0</a>
AirCard Watcher (Windows driver)	R3660	<a href="\\cnszx-fl01\Groups\Engineering\Firmware\PCtools\Host_Software\15 - External Release Packages\AirCard Watcher\CnS\Windows\Builds\Generic\Build3660">\\cnszx-fl01\Groups\Engineering\Firmware\PCtools\Host_Software\15 - External Release Packages\AirCard Watcher\CnS\Windows\Builds\Generic\Build3660</a>

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## 6 Software Changes Description

### 6.1 Validated Corrections / Improvements

Description	Impacted Domain	Impacted Sub-Domain	Fixed in
No USB port enumerate during EFS test	BSP	NV	T3.0.6.7
Record the EFS fetal error with NV	BSP	NV	T3.0.6.7
EFS corruption detection and recovery	BSP	NV	T3.0.6.7
Increase SVN and update TS25(20th October 2014)	AT	Certification	T3.0.6.7
Corrupted NVBU causes OSBL crash	BSP	NV	T3.0.6.7
Automatic answer feature activated by default on MC8705	Voice	NV	T3.0.6.7
Increase SVN number	Certification	SVN	T3.0.6.7
Integrate TESTSBA_M8200CFACPASZD30550_Sierra_CN1518678_081214	GPS	EFS	T3.0.6.7
Add AT!EFSCOUNTER command to query EFS crash times	DS	AT	T3.0.6.4
Resolve the issue that IMEI lost after EFS recovery happened	EFS	IMEI	T3.0.6.4
Use GCF flag to avoid the confliction between Telus specific requirement and PTCRB (impact case TS51.010 & TS34.2.5.1).	DS	SMS	T3.0.6.4
Merge Qualcomm SBA to pass PTCRB case TC26.6.11.3	GSM	PICS	T3.0.6.4
Update TS25(30th June 2014)	BSP	PLMN ID	T3.0.6.4
Add AT!FMSTATS to monitor EFS usage	DS	AT	T3.0.6.4
Erase EFS partition to recover from FS fatal error	BSP	EFS	T3.0.6.3
When data communication established, module resets after sending long SMS	SMS	AT	T3.0.6.3
Sending SMS randomly returns +CMS ERROR: 500	SMS	SMS	T3.0.6.2
Cyclic Reset when using AT+CMGL	SMS	AT	T3.0.6.2
Update SE13 to Published TS25 Database Monday 7 April 2014.xls	GCF Certification	PLMN name	T3.0.6.1
+CTZU function is not working	AT	UTC Time	T3.0.6.1
Crash dump during field tests	UMTS	NAS	T3.0.6.1
Increase SVN number for MC8704&MC8705	Certification	SVN ID	T3.0.6.1
Firmware crash @ w1m	RRC	Physical layer	T3.0.6.1
No ring back tone is heard during alerting state	Voice(MC8704)	AMR	T3.0.6.1
AT+CMGL causes modem to reset when there are more than 17 messages	SMS	SMS	T3.0.6.1
CNS port won't appeared after !EROPTION is set to 0 and a crash happens	Debug	CNS	T3.0.6.1
Subscription swap service not working as designed on SW firmware	Telefonica Certification	STK	T3.0.6.1
Integrate Qualcomm SBA SBA_M8200CFACPASZD30550	UMTS	NAS	T3.0.6.1
Integrate Qualcomm SBA SBA_M8200CFACPASZD30540	UMTS	NAS	T3.0.6.1

Description	Impacted Domain	Impacted Sub-Domain	Fixed in
System mode don't update after handover from GSM to WCDMA	AT	AT	T3.0.6.1
SP code not accessible in level 2 command	AT	AT	T3.0.6.1
Integrate Qualcomm SBA SBA_M8200CFACPASZD30530	System stability	UMTS/RRC /GSTK	T3.0.6.1
Crash during router bootup with particular SIM	System stability	GSDI	T3.0.6.1
GSM-BTR-1-7832 failed in AVL testing	AT&T Certification	NAS	T3.0.6.1
GSM-BTR-1-9018 failed in AVL testing	AT&T Certification	GSTK	T3.0.6.1
Update the SE13 list to 09 September 2013	GCF Certification	PLMNs name	T3.0.6.1
USB voltage cannot be changed by NV in bootloader	BSP	NV	T3.0.6.1
Port at fmw/fmr command	BSP	AT	T3.0.6.1
MC8705 data transmit failure of 24byte packet	DS	DS	T3.0.6.1
Increase SVN from 10 to 11 for MC8705	Certification	BSP	T3.0.6.1
Modem crash during router bootup with particular SIM	System stability	GSDI	T3.0.6.1
Implement the Disabling_CPC_EF-DPCH Functionality with AT!CUSTOM	UMTS	RRC	T3.0.6.1
Redefine the valid range of <yyyy> of !GPSXTRATIME	GPS	AT	T3.0.6.1
Change the default value of PC temperature in NV	Power Control	NV	T3.0.6.1
Integrate Qualcomm SBA SBA_M8200CFACPASZD30520	System stability	UMTS/CSD /SMS	T3.0.6.1
Update the ADC temperature mapping table	BSP	ADC	T3.0.6.1
Extend PC temp ADC reading to -40	BSP	ADC	T3.0.6.1
Integrate Qualcomm SBA_M8200CFACPASZD30510	System stability	UMTS	T3.0.6.1
Integrate Qualcomm SBA_M8200CFACPASZD30500	System stability	UMTS	T3.0.6.1
Integrate Qualcomm SBA_M8200CFACPASZD30490	System stability	UMTS	T3.0.6.1
Profile setting is cleared after FW updated to 3.x	Upgrade	Profile	T3.0.6.1
Merge SBA_M8200CFACPASZD30480	System stability	UMTS	T3.0.4.1
Merge SBA_M8200CFACPASZD30470	System stability	UMTS	T3.0.4.1
Merge QC SBAs (30410, 30420, 30430, 30440, 30450,30460)	System stability	UMTS	T3.0.4.1
Update the SE13 list (Feb 11, 2013) as GCF request	GCF certification	PLMNs name	T3.0.4.1
Solve issue that Class 0 SMS is saved while <mt>=2	GCF certification	SMS	T3.0.4.1
Solve issue that RSSI value of AT!GSTATUS without updating in idle mode	RRC	AT	T3.0.4.1
Downgrade !NVENUM restriction from L3 AT command to L2	AT	AT	T3.0.4.1
Solve issue that timestamp is missing while working in MS-Assisted mode(2D-Fix)	GPS	GPS	T3.0.4.1
Solve issue that modem keep staying in 'limited service' after SIM is unlocked	NAS	NAS	T3.0.4.1



Description	Impacted Domain	Impacted Sub-Domain	Fixed in
Solve issue that profile settings are cleared after FW updated to 3.x	Upgrade	BSP	T3.0.4.1
Solve issue that CnS/HIP log packet cannot be captured on 8200A platform	DM	DM	T3.0.4.1
Support the Telefonica feature that Operation_Radio_Backup_Network	GSTK	GSTK	T3.0.4.1
Support the function that AT!CUSTOM="AUTONETWORKMODE",2	NAS	AT	T3.0.4.1
Solve issue that No response of at+cops=0 when no SIM inserted	AT	AT	T3.0.4.1
Solve issue that CnS cannot report negative temperature	Interface	CnS	T3.0.4.1
Update SVN value	Certification	BSP	T3.0.4.1
Remove emergency number 111	PBM	PBM	T3.0.3.2
Merge QCT stack to 3.0.39.0_M8200CFACPASZD_1W	System stability	UMTS	T3.0.3.1
Fix VTS duration timer issue	timer	AT	T3.0.3.1
Add missing emergency number "111"	CM	PBM	T3.0.3.1
Fix issue that emergency call "000" fail with SIM inserted but pin locked	CM	PBM	T3.0.3.1
Increment SVN from 6 to 7	Certification	BSP	T3.0.3.1
Fix issue that AT+CHLD=21 does not return	CM	SS	T3.0.3.0
Merge QCT stack to 3.0.39.0_M8200CFACPASZD	System stability	UMTS	T3.0.3.0
Fix voice enable setting issue	DS	AT	T3.0.3.0
Fix dual PDP IP address issue when disconnect one PDP	DS	UMTS	T3.0.3.0
Fix inter RNC handover crash issue by merging QCT newest stack	MM	UMTS	T3.0.3.0
Add Qualcomm 3.0.35.0_M8200CFACPASZD SBA	System stability	UMTS	T3.0.2.1
Add Qualcomm 3.0.33.0_M8200CFACPASZD SBA	System stability	UMTS	T3.0.2.1
Add Qualcomm 3.0.32.0_M8200CFACPASZD SBA	System stability	UMTS	T3.0.0.2
Add Qualcomm 3.0.30.0_M8200CFACPASZD SBA	System stability	UMTS	T3.0.0.2
Add basic support for IPv6	DS	UMTS	T3.0.0.2
Fix: AT!SLEEP=0 doesn't work	BSP	AT	T3.0.0.2
Fix transition table: change default value of sleep from disabled to enabled	BSP	BSP	T3.0.0.2
Fix: AT!SELRAT command caused AT!BAND, AT!BAND returning "unknown band mask"	AT	UMTS	T3.0.0.2
Fix: change hard-coded value of HSDPA category from 18 to 14	RRC	RRC	T3.0.0.2

## 6.2 Interface Changes

Command	Comment
None	None

## 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 Cipherring/Integrity

If you're not attaching, check your cipherring settings. The UE needs to use the same settings as the network/test set. Generally, live networks will have cipherring/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 cipherring with the following settings: X = 0, Cipherring OFF, Integrity OFF X = 1, Cipherring ON, Integrity OFF X = 2, Cipherring 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.

#### 7.2.2 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

#### 7.2.3 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

### 7.2.4 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).

### 7.2.5 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.

## 8 Certification Description

This version has passed the AT&T 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