



MiniCard
Release 1122

**Release Notes &
Upgrading Instructions**

Revision:	1122
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1 General

1.1 Purpose

This document is intended to capture technical changes to the MiniCard release package. The document covers changes in the driver software components.

These release notes are NOT intended for the end user.

A new revision of this document will be issued when the driver software components of the product are updated.

1.2 Scope

This document covers issues that affect carriers and end users.

1.3 Revision History

Rev	Date	Author	Summary of changes
0.1	March 22 nd , 2006	Iulian Mocanu	Initial release of device drivers, USB descriptor and firmware. Based on a 8755/65 device hardware and firmware.
0.6	June 15 th	Iulian Mocanu, Steve Vuong	Build 964 – Driver Installer and SDK software release
0.7	June 27 th	Iulian Mocanu	Build 979 – Driver Installer MSI and SDK update
0.8	July 12 th , 2006	Iulian Mocanu, Craig Hogan	Build 994 – DriverInstallerMsi includes latest EVDO WHQL-ed drivers
0.9	Aug 18 th , 2006	Steve Vuong	Build 1048 – Driver Installer MSI update
1.0	Aug 25 th , 2006	Steve Vuong	Build 1051 – DriverInstallerMsi includes latest HSDPA WHQL-ed drivers and well as TCP registry updates
1122	September 29 th , 2006	P.Nikic	Build 1122 – DriverInstallerMsi and DriverInstaller

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Changes between this version and the previous one are highlighted in blue.

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2 Component Descriptions

2.1 General

The Build number is a Sierra Wireless assigned number that uniquely identifies all external releases of software and firmware. It is not specific to a product or software revision. It is an internal reference only.

2.2 The directory names mentioned in the following sections are referenced from the build folder

Includes all aspects of the MiniCard module including baseband functionality, RF performance, purpose of units (FTA, prototype, pilot production etc). Please see the MiniCard User Guide.

2.3 Device Drivers

Directory Name: Software/DriverInstaller and – Includes installer executable and Windows XP, 2K and Vista device drivers (32 and 64 bit platforms).

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3 Installing and Upgrading the Release

3.1 Download the entire Build Folder

It is recommended that the entire build folder specified in the email notification is downloaded to your local hard drive, e.g.:

From: ftp:\\Build725 (MC8775 Generic)

To: c:\\SierraWireless\\MC8775-v2.5

This will be referenced throughout the document as the “Build Folder”

3.2 Supported Operating Systems

This software and firmware package supports the Sierra Wireless MiniCard 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 build 5384

3.3 Installing or upgrading MiniCard Device Drivers

Ensure the Modem is powered off/unplugged and run DriverInstaller.exe or the driver installer msi package. Detailed step-by-step instructions are available) in the MiniCard User Guide.

4 Revision History

4.1 Build 1122

4.1.1 Driver Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Build 1122	
Host Software			
	USB Driver (EVDO)	2.0.6.0	
	USB Driver (HSDPA)	2.0.8.0	
	NDIS Driver (EVDO)	N/A	
	NDIS Driver (HSDPA)	2.0.4.0	
	DriverInstaller	1.0.1.3	
	DriverInstallerMsi	3.0.0.0	

4.1.2 Host Software Changes

4.1.2.1 DriverInstallerMsi

- Force installation from previous versions so users can upgrade by simply launching the msi
- Removed any OEM specific entries from Add/Remove programs
- Resolved the UAC installation issues in Windows Vista including silent mode
- Added registry key that specifies the location of all the DLLs

4.1.2.2 DriverInstaller

- Using driver installer DIFx APIs in Vista
- The msi installer includes Microsoft difixapi.dll version 2.0.1.0

4.2 Version 1.0

4.2.1 Driver Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Version 1.0	
Host Software			
	USB Driver (EVDO)	2.0.6.0	
	USB Driver (HSDPA)	2.0.8.0	
	NDIS Driver (EVDO)	N/A	
	NDIS Driver (HSDPA)	2.0.4.0	

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	DriverInstaller		1.0.1.3	
	DriverInstallerMsi		2.3.0	

4.2.2 Host Software Changes

4.2.2.1 DriverInstallerMsi Changes

- Include update of HSDPA WHQL-ed drivers.
- TCP registry updates

4.2.2.2 Device Driver Changes

- Do not enter MUX mode if the modem is in bootloader mode
- Fixed spin lock issue

4.2.2.3 DriverInstaller Tool Changes

- Fixed command line parameter bug under Win64
- Fixed XML file order bug

4.3 Version 0.9

4.3.1 Driver Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Version 0.9	
Host Software			
	USB Driver (EVDO)	2.0.6.0	
	USB Driver (HSDPA)	2.0.4.0	
	NDIS Driver (EVDO)	N/A	
	NDIS Driver (HSDPA)	2.0.2.0	
	DriverInstaller	1.0.1.2	
	DriverInstallerMsi	2.2.0	

4.3.2 Host Software Changes

4.3.2.1 DriverInstallerMsi Changes

- Include update of EVDO SDK DLLS.
- NOTE: The driver installer msi was previously released under build 1023 but documentation was only updated on this release.

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4.4 Version 0.8

4.4.1 Driver Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Version 0.8	
Host Software			
	USB Driver (EVDO)	2.0.6.0	
	USB Driver (HSDPA)	2.0.4.0	
	NDIS Driver (EVDO)	N/A	
	NDIS Driver (HSDPA)	2.0.2.0	
	DriverInstaller	1.0.1.2	
	DriverInstallerMsi	2.1.0	

4.4.2 Host Software Changes

4.4.2.1 DriverInstallerMsi Changes

- Changed title in Add/Remove
- Installing the latest EVDO drivers and DriverInstaller tool

4.4.2.2 DriverInstaller Tool Changes

- Wait for x64 process to complete before exiting application
- Added support for both difx and setup API (via command line options) install methods to help diagnosing potential Vista installation issues.

4.4.2.3 Device Driver Changes

- EVDO drivers are now WHQL-ed on both 32 and 64 bit platforms (XP and Vista)
- Fixed BSOD issue caused by handling USDB requests in AddDevice.

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4.5 Version 0.7

4.5.1 Software Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Version 0.7	
Host Software			
	USB Driver (EVDO)	2.0.5.0	
	USB Driver (HSDPA)	2.0.4.0	
	NDIS Driver	2.0.2.0	
	DriverInstaller	1.0.1.1	
	DriverInstallerMsi	2.0.0	

4.5.2 Host Software Changes

4.5.2.1 DriverInstallerMsi Changes

- The MSI package installs MFC8 DLLs.(32 and 64 bit) required by the welcome module component (swixxwm.dll).

4.6 Version 0.6

4.6.1 Software Component Revision Levels

Component		Revision	Compatibility
Driver Release Package		Version 0.6	
Host Software			
	USB Driver (EVDO)	2.0.5.0	
	USB Driver (HSDPA)	2.0.4.0	
	NDIS Driver	2.0.2.0	
	DriverInstaller	1.0.1.1	
	DriverInstallerMsi	1.0.0 (new GUID)	

4.6.2 Host Software Changes

4.6.2.1 Device Driver changes

- HSDPA devices
 - o 32 and 64 bit drivers are now WHQL-ed.
 - o Windows XP and Vista are fully supported
- EVDO Devices
 - o 32 and 64 bit binaries are now provided
 - o Windows XP and Vista are fully supported

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- WHQL certification is pending

4.6.2.2 DriverInstallerMsi Changes

A new common DriverInstallerMsi package is being provided. This package has a new GUID and it includes the following components:

- Device drivers for EVDO and HSDPA devices.
- Power API DLL (under the common folder)
- HSDPA SDK DLLs including welcome module DLL
- EVDO SDK DLLs

4.7 Version 0.1

4.7.1 Software Component Revision Levels

Note: This is an interim release and is intended for testing platform integration. The hardware and firmware are identical to the MC8755 device except the USB descriptor.

Component		Revision	Compatibility
Driver Release Package		0.1	
Host Software			
	USB Driver	1.4.0.9	
	NDIS Driver	1.5.1.5	
	DriverInstaller	1.0.0.7	
	DriverInstallerMsi	1.0.0	

4.7.2 Host Software Changes

4.7.2.1 Device Driver changes

- 32 bit drivers are now WHQL-ed
- 64 bit drivers are also provided but not WHQL-ed
- Added support for 64 bit platforms
- Added support for additional VID/PIDs
- NDIS Driver changes (1.5.1.5)
 - The 1.2.8 application firmware has exposed an issue in the NDIS driver where NDIS packets can remain in a “pending” state when users enter suspend mode immediately after connecting or disconnecting and if there is data traffic. This “pending” packet prevents the driver from unloading properly which causes the system to fail to suspend.
- USB Driver (1.4.0.9)
 - Minor fix in the USB driver to solve the event log entry regarding “surprise removal”.

A. Miscellaneous info

A.1 Troubleshooting

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

A.1.1 MiniCard with Test Box

1. If you're not attaching, check to see if the test box has ciphering on or off. The AirCard needs to be set the same. 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.

A.1.2 MiniCard in a Live Network

1. If you're not attaching, check to see if the live network has ciphering on or off. Generally live 3G network will have ciphering on (from the table below, X = 2). The AirCard needs to be set the same. 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.