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**Release Note**  
**For**  
**UbiSurf SM56 Software Modem**  
**Build 6.12.14.03**

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## Notices

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Additional company and product information can be found on our Internet Web site at:  
<http://www.motorola.com/softmodem>

# 1      Product Release Identification

Date:                    February 24, 2008  
Product Name:   Motorola SM56 UbiSurf Software Modem  
Classification:   Production Release  
Version:                6.12.14.03

The Motorola SM56 UbiSurf software modem is Motorola's unique software modem, a technology that relies on software to eliminate the need for a dedicated modem processor. The result is lower cost with a smaller footprint.

## 2 Release Details

The current version of SM56 contains the following features/modifications:

- Release Components:
  - TOSHIBA\_SM56\_6.12.14.03\_DF.zip  
SM56 installer for HDA Windows Vista64, Vista, XP64, XP, 2000
  - sm56moh\_setup\_6.12.14.03.zip  
MOH installer for HDA Windows Vista64, Vista, XP64, XP, 2000
- WHQL Signatures:
  - SM56 Data/Fax  
Windows Vista64, Vista, XP64, XP, 2000
- Target Platforms:
  - Si3054 (MDC HDAudio)
- New Features Added:
  - Allow installation of MOH from using command prompt without the need of going to the location where setup file is located.
  - Simplify ATi3 response.
  - AT&F was modified to not reset the call information of AT&V1 and AT#UD commands.
- Modifications/Updates:
  - ACCSL00007794 Update SM56 so that for 64-bit systems if mode UAC is changed that MOH would still install/uninstall/launching appropriately.

### 3 Platform Support

- Operating Systems:
  - Windows Vista64
  - Windows Vista
  - Windows XP64
  - Windows XP SP2
  - Windows 2000 SP4
  - Windows ME
  - Windows 98 SE
- Bus Interfaces:
  - PCI
  - MDC AC-Link
  - MDC HDAudio
  - USB
- System Side and Line Side Support for Silicon Laboratories Chipsets
  - PCI (Si3052)
    - Si3007
    - Si3008
    - Si3011
    - Si3017
    - Si3018
  - MDC AC-Link/HDAudio (Si3054)
    - Si3018
  - MoM HDAudio (Si3054)
    - Si3080
  - AMoM (Realtek Audio Codec)
    - Si3080
  - USB (F321+Si3056)
    - Si3018
- Core Logic Chipsets
  - Intel ICH
  - SiS
  - ViA
  - Ali
  - ATI
  - nVidia
- Language Support
  - Arabic
  - Chinese(Simplified)
  - Chinese(Traditional)

- Croatian
  - Czech
  - Danish
  - Dutch
  - English
  - Finnish
  - French
  - German
  - Greek
  - Italian
  - Japanese
  - Korean
  - Norwegian
  - Polish
  - Portuguese (Brazil)
  - Russian
  - Spanish
  - Swedish
  - Turkish
- Country Support for AT+GCI
- Algeria (02), Argentina (07), Armenia (D3), Australia (09), Austria (0A), Azerbaijan (D4), Bahamas (0B), Bahrain (0C), Bangladesh (0D), Belarus (1E), Belgium (0F), Bermudas (12), Bolivia (14), Brazil (16), Brunei Darussalam (1A), Bulgaria (1B), Canada (20), Chile (25), China (26), Colombia (27), Costa Rica (2B), Cyprus (2D), Czech Republic (2E), Denmark (31), Dominican Republic (33), Ecuador (35), Egypt (36), El Salvador (37), Estonia (D2), Finland (3C), France (3D), French Polynesia (3E), Georgia (D5), Germany (04,42), Gibraltar (45), Greece (46), Guadeloupe (CE), Guam (48), Guatemala (49), Honduras (4F), Hong Kong (50), Hungary (51), Iceland (52), India (53), Indonesia (54), Ireland (57), Israel (58), Italy (59), Japan (00), Jordan (5E), Kazakhstan (E5), Korea (61), Kuwait (62), Kyrgyzstan (C9), Latvia (CA), Lebanon (64), Liechtenstein (68), Lithuania (C7), Luxembourg (69), Macau (6A), Malaysia (6C), Malta (70), Martinique (CD), Mexico (73), Moldova (CB), Mongolia (75), Morocco (77), Netherlands (7B), New Zealand (7E), Nicaragua (7F), Nigeria (81), Norway (82), Oman (83), Pakistan (84), Panama (85), Paraguay (87), Peru (88), Philippines (89), Poland (8A), Portugal (8B), Puerto Rico (8C), Qatar (8D), Reunion (CC), Romania (8E), Russia (B8), Saudi Arabia (98), Serbia (C1), Singapore (9C), Slovakia (C5), Slovenia (C6), South Africa (9F), Spain (A0), Sri Lanka (A1), Sweden (A5), Switzerland (A6), Syria (A7), Taiwan (E1), Tajikistan (E2), Thailand (A9), Tunisia (AD), Turkey (AE), Turkmenistan (E3), Ukraine (B2), United Arab Emirates (B3), United Kingdom (B4), Uruguay (B7),

USA (B5), Uzbekistan (E4), Venezuela (BB), Vietnam (BC), Yemen (C0), Zambia (C3)

## 4 Product Specifications

- Data Modem:
  - V.92 with auto fallback
  - V.90 & K56flex™ (up to 56 Kbps receive)
  - V.34 (33,600 bps - 2,400 bps)
  - V.32bis (14,400 bps - 4,800 bps)
  - V.32 (9,600 bps - 4,800 bps)
  - V.22bis (2,400 bps - 1,200 bps)
  - V.22 (1,200 bps)
  - V.23 (75 bps / 1,200 bps - 600 bps)
  - V.21 (300 bps)
  - Bell 212A (1,200 bps)
  - Bell 103 (300 bps)
- Error Correction:
  - V.42
  - LAP-M
  - MNP 2-4
- Data Compression:
  - V.42bis
  - MNP 5
- Fax Modem:
  - Group III, Class 1
  - Class 1 fax error correction mode
  - V.17 (14,400 bps - 12,000 bps)
  - V.29 (9,600 bps - 7,200 bps)
  - V.27ter (4,800 bps - 2,400 bps)
  - V.21 (300 bps)
- Adaptive Connection Support:
  - V.8 automode negotiation
  - V.8 PRIME & V.8bis
  - Adaptive Rate Renegotiation
  - Automatically adjusts speeds up and down
- Tone Detections:
  - Dial tone, second dial tone
  - Ring back, busy
  - Data/fax answering tones
  - DTMF



## 5 Project Deliverables

☒ Release Note .....

☒ Product.....

## 6 Field Support

- There are two ways to set the country setting for the modem.
  - Using Microsoft Phone and Modem Options, which will set the default country setting for any application that uses the modem.
    1. Go to Microsoft Control Panel.
    2. Go to Microsoft Phone and Modem Options.
    3. In Dialing Rules tab click "New".
    4. In "Location name:" type <country name>.
    5. In "Country/Region:" choose <country name>.
    6. In "Area code:" type <country code>.
    7. Click OK.
    8. You should see the new <country name> location in the Dialing Rules tab. Make sure it is selected and click "Apply" followed by "OK".
  - Using AT command, which will set the country setting only for the current COM port session.
    1. Go to Hyperterminal.
    2. Make sure you are connecting Hyperterminal to the Motorola SM56 Modem com port.
    3. In Hyperterminal type ATI6 to see what country the modem is currently set to.
    4. To change the country use the command AT+GCI=<value>.
    5. Type ATI6 again to verify that correct country was set.
    6. Once Hyperterminal is closed and the session ended, the modem will return to the default country setting from the OS that was set using the Microsoft Phone and Modem Options.
- Enable\Disable Direct X Call Progress with the silent installer (ssetup.exe) from DOS Prompt.
  - Disable for Data/Fax: `ssetup -dx=0`
  - Enable for Data/Fax: `ssetup -dx=1` (Default)
  - Disable for Data/Fax/Voice: `ssetup -dx=2` (Default for PCI only)
  - Enable for Data/Fax/Voice: `ssetup -dx=3` (Default except PCI)
- To install MOH run SETUP.EXE from sm56moh folder.
- Other silent installer commands:
  - Set location to save silent installer result  
Usage: `-f2=<filename>`  
Examples:  
`-f2=modemlog.txt`  
`-f2="C:\LogFiles\modemlog.txt"`
- Please report all problems to Motorola Field Applications Engineer.

## 7 Release History

### **Build 6.12.14.02 DF (January 16, 2008)**

- New Features Added:
  - Reduce No Carrier count for customer specific line
- Modifications/Updates:
  - ACCSL00007618 Make MOH wording same as current Toshiba MOH for French

### **Build 6.12.12.01 DF (December 26, 2007)**

- New Features Added:
  - Added new MOH customer specific with 22 languages support.
  - Added updates to silent installer for MOH as requested by customer.
  - For customer specific AT&F should reset QC, MOH and CW settings.
  - Updates on v.92 connect message
- Modifications/Updates:
  - ACCSL00007254 Reduce File Transfer Elapsed Time for v.34

### **Build 6.12.12.01 DF (October 29, 2007)**

- New Features Added:
  - Added T.35 country compliance for Lithuania, Belarus, Croatia, Yugoslavia, Serbia
  - Added language support for Arabic, Croatian, Polish and Russian.
  - Added more info to capture with debug driver
- Modifications/Updates:
  - ACCSL00007005 Data connection enhancement for multiple consecutive dialing using Teraterm scripts
  - ACCSL00005576 MOH enhancement to avoid modem disconnect during ignore and answer.

### **Build 6.12.11 DFV (September 07, 2007)**

- New Features Added:
  - Do updates for USB, HDA and PCI M3.
- Modifications/Updates:
  - ACCSL00006738 Add support for verifier.exe.

### **Build 6.12.10 DFV (August 01, 2007)**

- New Features Added:
  - Added voice support for USB.

### **Build 6.12.08 DF (May 28, 2007)**

- New Features Added:
  - Added support for South Bridge VT82C686A.
  - Updated DAA register settings to new Silicon Laboratories requirements.

- Security updates based on Microsoft recommendations.
- Removed old customer PnP IDs.
- Enhance USB installation package to allow driver installation without USB modem plugged in and without asking CD after pre-installation.
- Modifications/Updates:
  - ACCSL00005275 USB update installation in response to message "There is not enough resources to start Modem Control application".
  - ACCSL00005526 USB improvements for system specific pulse dialing performance.

#### **Build 6.12.07 DFV (February 23, 2007)**

- New Features Added:
  - Added support for AT+GMM command.

#### **Build 6.12.06 DF (January 24, 2007)**

- New Features Added:
  - Added support for Mongolia, Tajikistan, Turkmenistan and Uzbekistan.
  - Added more PNP IDs as requested by customer.
  - Added support to installer for customer installation procedure.
  - Added support to installer to work with Vista Programs and Features and Device Manager install/uninstall.
  - Added AT command to disable/enable over current protection for field homologation.
- Modifications/Updates:
  - ACCSL00005283 Update port communication for better interoperability with Vista AOL.
  - ACCSL00005266 Update modem disconnection to interoperate with Vista Windows dialer in voice mode.

#### **Build 6.12.05 DF (January 05, 2006)**

- New Features Added:
  - Multilingual support for driver installer/uninstaller.
  - Update for v.90 incompliant server in Japan.
  - Add silent installer "-f2" command to indicate location to save installer log file.
  - Add prevention versus error loading sm56co.dll.
  - Add USB installation without need to of hardware connected.
- Modifications/Updates:
  - ACCSL00004846 Update silent installer to support removal of device from device manager without refreshing or rebooting system.
  - ACCSL00004868 Update silent installer to support Traditional Chinese WinXP.
  - ACCSL00004725 Add prevention versus continuous CS hardware testing causing a rare and uncommon system freeze.

**Build 6.12.04 DF (November 10, 2006)**

- New Features Added:
  - New installation structure introduced for Vista installation.
  - Obtained Microsoft Vista WHQL logo for 32-bit and 64-bit architectures.
  - Added support for Silicon Laboratories ML3081 ref design.
  - Added voice improvements to speakerphone.
  - Remove modem tray and add support for Country setting from Microsoft Phone and Modem Options.  
(Note: AT command country setting only takes place for as long as port is open. Once port is closed modem defaults back to the settings from Microsoft Phone and Modem Options)
  - USB modem support with LED.
- Modifications/Updates:
  - ACCSL00004398 Disabled WOR for Vista because of Microsoft unresolved issue.
  - ACCSL00004464 Synchronize AT\*HO and ATA commands.
  - ACCSL00004481 System should not wake after plug and unplug line.

**Build 6.12.03 DF (September 21, 2006)**

- New Features Added:
  - Create the capability to disable power management tab for Vista.
  - Added customer specific PnP IDs
  - Add support for Bolivia, Guatemala, Honduras, Nicaragua, Panama, Cyprus
  - Added support for 2nd Gen Silabs for HD Audio
- Modifications/Updates:
  - ACCSL00004108 Add updates for dialing in customer factory simulated environment
  - ACCSL00003929 Adjusted call progress volume

**Build 6.11.13.01 DF/DFV (August 25, 2006)**

- Modifications/Updates:
  - ACCSL00003797 Need to update modem to work with customer installer.

**Build 6.11.13 DF/DFV (August 9, 2006)**

- New Features Added:
  - Real-time monitoring tool
  - New PNP IDs for ASUS.
  - Restore old DCR detection method for JATE.
  - Updates for support of PC Anywhere.
  - Update AT+VCID command
  - Add support for modem country setting using Windows Phone and Modem Options synchronization.
  - Speakerphone updates

- 2<sup>nd</sup> Gen Silabs DAA updated support
- Modifications/Updates:
  - ACCSL00003747 Add dial tone support for P13G and P15G systems.
  - ACCSL00003475 Work around for Microsoft S3-stand by mode issue.
  - ACCSL00003521 Update software for Sigmatel chip that caused modem not to open com port.
  - ACCSL00003694 Add dial tone support for L19D systems.
  - ACCSL00003148 Reduce disconnect time to ISP.
  - ACCSL00003541 Correct 20PPS pulse dialing failure
  - ACCSL00003658 Japan local ISP connectivity improvements

#### **Build 6.11.11 DF/DFV (May 26, 2006)**

- New Features Added:
  - Add support to remove modem driver using Add/Remove programs after removing modem board.
  - Add nVidia's MCP51 silent installer support.
  - Update user message is UAA driver not installed.
- Modifications/Updates:
  - ACCSL00003493 Adjust loop current too high warning message
  - ACCSL00003499 Adjust JATE DTMF level
  - ACCSL00003502 Modem WOR updates

#### **Build 6.11.10 DF/DFV (April 21, 2006)**

- New Features Added:
  - Brazil Power Cross protection for PCI Si3007.
  - M3200 Fax Machine support.
  - Remove customer specific PnP IDs as requested by customer.
  - Added support for nVidia MCP51.
- Modifications/Updates:
  - ACCSL00002929 Brazil Power Cross protection improvements.
  - ACCSL00002927 Netherlands dial tone detect improvements.
  - ACCSL00003353 Improve speakerphone voice quality.

#### **Build 6.11.09 DF/DFV (March 29, 2006)**

- New Features Added:
  - Pulse dialing miss dial protection.
  - Set interval timing in sleep mode to system default.
- Modifications/Updates:
  - ACCSL00003163 Guard tone detection improvement for modem to modem for Germany.
  - ACCSL00003267 Modem On Hold incoming call fix
  - ACCSL00003189 Fixed fax send/receive for USA testing lab

#### **Build 6.11.08 DF/DFV (March 24, 2006)**

- New Features Added:
  - Added different PNP IDs for M3 and Sm56 DF and DFV.

- Added AT command to differentiate M3 and regular modem.
- Add "Country/Regions" name instead of "Country".
- Verify support for HDAudio for nVidia MCP51 chipset.
- Modifications/Updates:
  - ACCSL00003116 Improve voice quality using PowerForPhone speakerphone tool.

#### **Build 6.11.07 DF (March 10, 2006)**

- New Features Added:
  - Remove the read me file from installation package by customer specific request.
  - Special modem device name by customer specific request.
  - Hide Modem Helper tray applet icon by customer specific request.
  - Special v.92 feature default setting by customer specific request.
  - Add language support for Korea, Spanish and Dutch.
  - Updated homologation setting for Japan redial regulation based on JATE request.
  - Added customer specific Plug and Play ID.
- Modifications/Updates:
  - ACCSL00003162 Add extra support to Canada dial tone detection.
  - ACCSL00003147 Add extra compensation to Procomm Plus application for customer testing.

#### **Build 6.11.06 DF/DFV (February 17, 2006)**

- New Features Added:
  - Add support for Microsoft call back function.
  - Disable pulse dialing for Australia certification.
  - Silent installer automatic ignore of Hardware Wizard.
  - ATI6 now responds actual name of country and added Vietnam and Gibraltar to the list.
  - Add support for notebook P50CA0 for 64-bit operating system.
  - Update Read me file.
- Modifications/Updates:
  - ACCSL00002801 Fix crackling sound and freeze for AMOM platform.
  - ACCSL00002878 Fix freeze when shutdown after dialing with phone unplugged for AMOM platform.
  - ACCSL00002747 Homologation changes for South Africa PTT
  - ACCSL00002849 Fix modem query issue in Windows ME.
  - ACCSL00002670 Correct/Updated modem speaker volume control.

#### **Build 6.11.04 DF (December 14, 2005)**

- New Features Added:
  - Add support for Windows 2000 Adaptive Answer.

#### **Build 6.11.03 DF (December 7, 2005)**

- Modifications/Updates:

- ACCSL00002258 Improve connect rate on some field locations tested by customers.

#### **Build 6.11.02 DF (November 23, 2005)**

- New Features Added:
  - Japan PBX line support feature added
  - Add Gateway new PNP ID
  - Added new Brazil ANATEL AT Command, loop-back, busy tone detection and over-voltage support.
- Modifications/Updates:
  - ACCSL00002363 Japan incoming ring detection enhancer.
  - ACCSL00002142 Australia DCIV Update.

#### **Build 6.11.01 DF (November 10, 2005)**

- New Features Added:
  - Added 64-bit system support
  - Added connect time counter display in AT&V1 command
  - Added WTERM DOS-Box utility support.
- Modifications/Updates:
  - ACCSL00002249 A/ command correction.
  - ACCSL00002250 Add High level support to ATL command.

#### **Build 6.10.09 DF (August 31, 2005)**

- New Features Added:
  - Added support for Si3080 Chipset.
  - Added support for AC-Link ICH7.
  - Azalia Homologation support.
- Modifications/Updates:
  - ACCSL00001989 Update the silent un-installer.
  - ACCSL00002077 Windows start up sound fix
  - ACCSL00002038 Non-destructive system recovery support
  - ACCSL00002142 DCIV Australia test support

#### **Build 6.10.08 DF/DFV (August 05, 2005)**

- New Features Added:
  - Added PNP ID for PB/NEC Modems
  - Modem tester with French translation prepared according to PB/NEC requirements.

#### **Build 6.10.07 DF (August 15, 2005)**

- New Features Added:
  - Add ACLink support for ICH7 platform.
- Modifications/Updates:
  - ACCSL00001925 Enable buzzer support.

#### **Build 6.10.06 DF (July 19, 2005)**



- New Features Added:
  - Added support for French and German translations of the Modem Helper GUI
- Modifications/Updates:
  - ACCSL00001848 Caller ID support for Singapore
  - ACCSL00001853 Support for nVidia CK804 chipset

#### **Build 6.10.05 DF (July 13, 2005)**

- New Features Added:
  - Added more installation commands to control Helper tabs layout.
  - Support for some serial port libraries
- Modifications/Updates:
  - Removed country warning dialogue for Si3007/08 chipsets.
  - ACCSL00001372 MOH popup window appears even if disabled.
  - ACCSL00001655 On-hook transition speed for European countries
  - ACCSL00001666 MOH setting became enable after entered AT command in HyperTerminal
  - ACCSL00001775 Correct the country list selection in advanced tab of modem property
  - ACCSL00001787 Update AC-register reading algorithm for VIA
  - ACCSL00001816 Update AT&V2 command to display Product Code for HDAudio modem driver

#### **Build 6.10.03.120 DF (June 03, 2005)**

- Modifications/Updates:
  - ACCSL00001698 Modem could not response after wakes up from S3
  - ACCSL00001579 Add more installation commands to control Helper tabs layout
  - ACCSL00001738 ssetup.exe provides the parameter that can reboot system after finish the installation
  - ACCSL00001739 ssetup.exe can replace old driver with new driver
  - ACCSL00001742 Modem to modem connection is slow
  - ACCSL00001823 System specific windows hangs sometime after fax receive
  - ACCSL00001598 Remove modem using device manager

#### **Build 6.09.07 DF/DFV (January 25, 2005)**

- New Features Added:
  - Added support for ATI IXP400.
- Modifications/Updates:
  - ACCSL00001443 Update support for ICH6R mother board.
  - ACCSL00001399 AT commands updated.
  - ACCSL00001455 Support for HCT 12.1 Beta.
  - ACCSL00001442 Modify .inf file to support new HDAUDIO ID's
  - ACCSL00001485 Improve memory management robustness for Azalia driver hardware layer

- ACCSL00001578 Silent installer updates
- ACCSL00001005 Burst of MSE upon constellation set change

#### **Build 6.09.05 DF (November 15, 2004)**

- New Features Added:
  - Added support for 2<sup>nd</sup> Gen Dual modem Si3024RevF chipset. The universal driver now supports HD Audio and ACLink mode with SiLabs 2<sup>nd</sup> Gen Si3024.
  - Motorola Modem Tray Application now supports multiple language GUIs including English, Japanese, Traditional Chinese and Simplified Chinese.
- Modifications/Updates:
  - ACCSL00000838 When connecting to Japan V.92 server, several error message of Caller ID as ERRM=ICLID\_202.
  - ACCSL0000674 WOR support for HD Audio.
  - ACCSL0000675 Analog Loopback Test support for HD Audio.
  - ACCSL0001227 AT command +MS can not set correct modulation mode.
  - ACCSL0001218 AT command L3 can not hear sound.
  - ACCSL0001342 System goes "Reset" if try reboot while modem is in online mode
  - ACCSL00001149 Incorrect Caller ID behavior for Dual Tone alert
  - ACCSL00001005 Burst of MSE upon constellation set change

#### **Build 6.09.04 DF (October 25, 2004)**

- New Features Added:
  - This driver is Microsoft WHQL certified for HD Audio Platform.
  - TAS Network Model performance enhancements.
- Modifications/Updates:
  - Fixes for WOR support in HD Audio mode.
  - Microsoft HCT 12 compatible.
  - WOR S3 problem under Win2K on AC-Link, ViA VT8237
  - Win2K Simplified Chinese cant show the real time status in tray Applet
  - Win2K Simplified Chinese can't hear any sound while call progress.

#### **Build 6.08.07 DF (August 31, 2004)**

- New Features Added:
  - Si3054E Support – Added support for SiLabs Dual mode Si3054 Rev G chipset. The universal driver supports auto detection of HD Audio and AC-Link functionality.
  - Si3007 Support – Added Support for the new Low Cost Si3007/08 chipset.
- Modifications/Updates:
  - Update Silent Installer to support Azalia.
  - Updates for Packet Loss utility.
  - Country profile changes for France.
  - Updates for Brazil settings.
  - Added AT command for reading writing registers.
  - Added support for 20PPS fast pulse mode dial for Japan.

- Fixed modem on hold Incoming Call window will show after disconnect.