



## BIOS Update Release Notes

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### PRODUCTS: DH87MC (Standard BIOS)

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**BIOS Version 0164 - MCH8710H.86A.0163.2018.1023**

#### About This Release:

- Date: October 24, 2018
- ME Firmware: 9.0.20.1447
- Memory Reference Code: Based on 1.6.2.0
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

#### New Fixes/Features:

- Updated CPU Microcode (Security Advisory-00115).

**BIOS Version 0163 - MCH8710H.86A.0163.2018.0322.1147**

#### About This Release:

- Date: March 23, 2018
- ME Firmware: 9.0.20.1447
- Integrated Graphics:
  - Option ROM: Build 2179 PC 14.34
  - GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN:
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

#### New Fixes/Features:

- Updated CPU Microcode (Security Advisory-00088)

**BIOS Version 0162 - MCH8710H.86A.0162.2015.0707.1551**

#### About This Release:

- Date: July 8, 2015
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34

\*Other names and brands may be claimed as the property of others.

- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

**This BIOS includes support only for processors launched earlier than April 2014. Refer to <http://processormatch.intel.com> for processors compatible with your Intel® Desktop Board. This site also lists third party motherboards that support the latest Intel processors.**

**Notes:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Implemented security enhancement solution.
- Added Post Halt feature.
- Modified watchdog timer warning message.

<b>BIOS Version 0158 - MCH8710H.86A.0158.2014.0912.1100</b>
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**About This Release:**

- Date: September 12, 2014
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

**This BIOS includes support only for processors launched earlier than April 2014. Refer to <http://processormatch.intel.com> for processors compatible with your Intel® Desktop Board. This site also lists third party motherboards that support the latest Intel processors.**

**Notes:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

\*Other names and brands may be claimed as the property of others.

- Fixed issue where the USB 2.0 port next to the DisplayPort does not appear on the Windows\* task bar.

**BIOS Version 0157 - MCH8710H.86A.0157.2014.0530.1830**

**About This Release:**

- Date: May 30, 2014
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

**This BIOS includes support only for processors launched earlier than April 2014. Refer to <http://processormatch.intel.com> for processors compatible with your Intel® Desktop Board. This site also lists third party motherboards that support the latest Intel processors.**

**Notes:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Fixed issue where TPM module is not detected.
- Enhanced the protection of certain UEFI variables as described in Intel Security Advisory INTEL-SA-00038.

**BIOS Version 0156 - MCH8710H.86A.0156.2014.0430.0904**

**About This Release:**

- Date: April 30, 2014
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

**Notes:**

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BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Fixed audio codec IC voltage drop issue.

**BIOS Version 0155 - MCH8710H.86A.0155.2014.0417.1802**

**About This Release:**

- Date: April 17, 2014
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN
  - Option ROM: v1403 PXE 2.1 Build 091
  - UEFI Driver: 5.1.00
- Visual BIOS version: v2.2.5

**Notes:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Updated RC to 1.6.2.
- Updated Visual BIOS to version 2.2.5.
- Updated processor support.
- Fixed issue where Linux Steam\* OS does not boot.
- Improved EFI variable protection for Setup variable.
- Fixed issue where UEFI operating system cannot be installed.
- Fixed issue where Hard Disk Drive Password length did not match the specification.

**BIOS Version 0154 - MCH8710H.86A.0154.2014.0123.1542**

**About This Release:**

- Date: January 23, 2014
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2179 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783

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- LAN  
Option ROM: v1403 PXE 2.1 Build 091  
UEFI Driver: 5.1.00
- Visual BIOS version: v2.1.5

**Notes:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Updated Fan Speed Control module to improve fan speed behavior.
  - If you have Intel® Desktop Utilities (IDU) installed, the complete fix for this fan speed issue requires that you install this BIOS update and [IDU version 3.2.8 or later](#). If you install this BIOS version but do not install the updated version of IDU, the fans will continue to run at full speed once Windows\* is started.
- Improved power button menu functionality.
- Updated VBIOS to version 2179.
- Added VT-d item in BIOS setup.
- Fixed TPM issue.

<b>BIOS Version 0153 - MCH8710H.86A.0153.2013.1205.2003</b>
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**About This Release:**

- Date: December 5, 2013
- ME Firmware: 9.0.20.1447
- Integrated Graphics Option ROM: Build 2170 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783
- SATA RAID UEFI driver: v12.0.0.1783
- LAN Option ROM: v1403 PXE 2.1 Build 091
- Visual BIOS version: v2.1.5

**Note:**

BIOS version 0152 added support for Microsoft\* Windows\* 8.1. After updating to version 0152 or later, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Updated Visual BIOS to version 2.1.5.
- Fixed issue where temperature details are shown instead of voltage threshold.
- Added Hard Disk Pre-Delay setup item.
- Fixed issue where external graphics card shows no video if Legacy Boot is disabled and UEFI is enabled.

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- Fixed issue where 1600 MHz memory modules run at 1333 MHz.
- Added Mini-PCIe Slot setup item.

**BIOS Version 0152 - MCH8710H.86A.0152.2013.1104.2159**

**About This Release:**

- Date: November 4, 2013
- ME Firmware: 9.0.13.1447
- Integrated Graphics Option ROM: Build 2170 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1783



SATA RAID UEFI driver: v12.0.0.1783

- LAN Option ROM: v1403 PXE 2.1 Build 091
- Visual BIOS version: v2.0.23

**Note:**

BIOS version 0152 adds support for Microsoft\* Windows\* 8.1. After updating to version 0152, you will not be able to downgrade to version 0047 or earlier. The following warning message will display: This BIOS is not allowed to downgrade reversion, but system will do reset in 20 seconds automatically.

**New Fixes/Features:**

- Updated flash BIOS warning message.
- Updated Cooling page Temperatures SIO item.
- Fixed issue in Intel® Desktop Utilities with inaccurate VR and memory temperature readings.
- Modified XHCI and EHCI USB port mapping.
- Updated VBIOS to version 2177 and GOP to version 5.0.1034.
- Updated processor support.
- Updated Intel® ME firmware to version 9.0.20.1447.
- Changed VT-d support to be dependent on installed processor.
- Changed DVMT default setting to 32 MB.
- Updated Secure Boot module.
- Fixed Fast Boot issue where question still can be selected after the User Password or Hard Disk Drive Password is installed.
- Fixed issue where folder names are incorrect in F7 update.
- Modified XHCI and EHCI USB port mapping.
- Updated hard drive password length from "2-8" to "2-19".
- Updated settings if CPU does not support Turbo boost Technology:
  - "OCA for Processor" and "Maximum Processor Core Ratio" will gray out.
  - "Intel Turbo Boost Technology" will be set to "disable" and hidden.
  - "Burst Mode Power Limit", "Burst Mode Power Limit (Watts)", "Sustained Mode Time (Seconds)", "Sustained Mode Power Limit (Watts)" will be hidden.
- Fixed issue with Wake on LAN.
- Modified Consumer Infrared (CIR) code.
- Added "RestoreSpecialBootOptions" module.
- Updated RAID Option ROM to version 12.0.0.1783.
- Fixed issue where the [F3] DISABLE FAST BOOT prompt does not display and system does a BIOS recovery when selecting F3.
- Fixed issue where system does not halt when password is entered incorrectly three times and Ctrl+Alt+Del still works.
- Fixed issue where if Supervisor Password is installed and Supervisor Password is not required to continue post when Chassis Intrusion is set to log only.
- Fixed SATA speed display in Setup boot order menu.
- Fixed key issues for Config Mode menu.

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- Fixed issue where Power LED still blinks when no video is detected even when set to "NO VIDEO DETECTED ERROR BEEPS".
- Fixed Cooling Assistant bar functionality.
- Fixed issue where USB3.0 hard drives can be detected when all USB3.0 ports are set to "No detect".
- Improved VT-d support.
- Fixed issue where Processor Input Voltage Override (V) is lost. Fixed issue where help text for Graphics Max Multiplier is lost and the range is incorrect.
- Fixed issue where the Cooling Assistant profile default value is incorrect.
- Fixed issue where there is no illustration for the back panel.
- Fixed issue where there is Secondary SATA Controller Configuration on the SATA page.
- Fixed issue where the range of Processor Thresholds is incorrect.
- Fixed issue where Graphics Voltage Target Multiplier (V) item should be removed.
- Fixed Processor Cores Voltage [Workspace] issue.

**BIOS Version 0047 - MCH8710H.86A.0047.2013.0606.1508**

**About This Release:**

- Date: June 6, 2013
- ME Firmware: 9.0.2.1345
- Integrated Graphics Option ROM: Build 2170 PC 14.34
- GOP: 5.0.1025
- SATA RAID Option ROM: v12.0.0.1758
- LAN Option ROM: v1403 PXE 2.1 Build 091

**New Fixes/Features:**

- Updated Visual BIOS to version 2.0.23.
- Fixed issue where customized logo is not saved after BIOS Recovery.
- Improved DMI protection.
- Fixed issue with Boot Block Fault tolerance.
- Fixed issue where F9 loads original defaults instead of defaults set by Intel® Integrator Toolkit (ITK).
- Fixed issue where Cooling Assistant does not work in Visual BIOS.
- Revised Setup item string, [C6/C7 C-state] to [Lowest CPU Idle Power Setting].
- Added XTU improvements.
- Updated processor support.
- Fixed issue with Primary Video Adapter.
- Fixed issue with STDBY LED blink during shutdown stage.
- Fixed issue where the default value and help text for Unattended BIOS Configuration are incorrect.

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- Fixed issue where some information lost in Other Information section in BIOS.
- Fixed issue where "Processor Family x Model y Stepping z" character does not show in BIOS.
- Fixed issue where Ext PCI Graphics option is lost under Primary Video Adaptor menu.
- Fixed issue where motherboard information is lost from ITK "Only show setting that are compatible" list.
- Fixed issue where the Cooling Assistant profile default value is wrong.
- Fixed issue where the Advance help text of Clear Secure Boot Data should be removed and the help text of the item is incorrect.
- Fixed issue where "Set User Hard Drive Password" shows incorrectly.
- Fixed issue where boot priority can change in UEFI mode the first time after rebooting from the operating system.  
Added support to use ITK Custom Boot Order as Default Boot Order.
- Corrected the BIOS Config Menu display strings when secure jumper is removed.
- Updated POST Function Hotkeys Display strings.
- Fixed issue with the F3 Disable Fast boot function when the power button menu is displayed.
- Fixed issue with unsupported password key character warning beep.
- Fixed issue where, if Hard Drive Password Prompt is disabled, BIOS will never prompt for a Hard Drive password unless attempting to boot to a drive with a User Hard Drive Password installed.
- Fixed issue where system cannot be waked up from ACPI state(S3/S4/S5) via onboard LAN.
- Fixed issue with Startup Sound default setting.
- Fixed issue where F4 BIOS Recovery option is missing from Power Button Menu.
- Fixed issue where the ranges of Processor Core Voltage Offset(V), Ring Voltage Offset(V), and Graphics Voltage Offset(V) **are** incorrect.
- Fixed issue where changes in ITK's Boot Order Pane fail.

**BIOS Version 0043 - MCH8710H.86A.0043.2013.0412.2225**

**About This Release:**

- Date: April 12, 2013
- ME Firmware: 9.0.2.1345
- Integrated Graphics Option ROM: Build 2170 PC 14.34
- SATA RAID Option ROM: v12.0.0.1758
- LAN Option ROM: v1403 PXE 2.1 Build 091

**New Fixes/Features:**

- Initial production BIOS release

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