



## BIOS Update Release Notes

### PRODUCTS: DQ45CB, DQ45EK (Standard BIOS)

#### BIOS Version 0133

##### About This Release:

- Date: August 10, 2011
- CBQ4510H.86A.0133.2011.0810.1010
- ME Firmware Revision: 5.2.40.1037
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.65

##### Note:

After updating to BIOS version 0133 or newer, you must use the Recovery update method to revert to version 0129 or earlier.

##### New Fixes/Features:

- Updated the PXE ROM to version 1.3.65.
- Updated processor support.
- Fixed issue where Intel® Desktop Utilities displays no data when UEFI Boot is enabled.
- Fixed issue where the system hangs at POST code 45 when certain add-in cards are installed.

#### BIOS Version 0129

##### About This Release:

- February 11, 2011
- CBQ4510H.86A.0129.2011.0211.1459
- ME Firmware Revision: 5.2.40.1037
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.53

##### New Fixes/Features:

- Updated the ME firmware to the version of 5.2.40.1037.

#### BIOS Version 0127

##### About This Release:

- September 13, 2010
- CBQ4510H.86A.0127.2010.0913.0919
- ME Firmware Revision: 5.2.20.1030
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.53

##### New Fixes/Features:

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

- Display PKI Hash Entry #6 in setup.
- Fixed issue where special characters (~!@#, etc.) are not supported for BIOS passwords.

#### **BIOS Version 0125**

##### **About This Release:**

- August 18, 2010
- CBQ4510H.86A.0125.2010.0818.1036
- ME Firmware Revision: 5.2.20.1030
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.53

##### **New Fixes/Features:**

- Fixed issue where system hangs when using certain KVM device.
- Set the TPM Physical Presence Lifetime Lock bit in POST.
- Updated PXE ROM to v1.3.53.
- Fixed issue where keyboard does not work during BIOS update when asked to "Enter TPM Owner Password".

##### **Known Errata:**

There may be failures while flashing the system BIOS from this version to versions before 0119 through Iflash2, F7 Flash or Express BIOS Update, since the ME firmware was updated in version 0121.

#### **BIOS Version 0123**

##### **About This Release:**

- July 6, 2010
- CBQ4510H.86A.0123.2010.0706.0858
- ME Firmware Revision: 5.2.20.1030
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

##### **New Fixes/Features:**

- Fixed issue where COMMAND.COM cannot be found on USB flash drive connected to a front USB port.
- Added BIOS features for **Display F9 for Remote Assistance** and **CPU C State**.

##### **Known Errata:**

There may be failures while flashing the system BIOS from this version to versions before 0119 through Iflash2, F7 Flash or Express BIOS Update, since the ME firmware was updated in version 0121.

#### **BIOS Version 0121**

##### **About This Release:**

- April 12, 2010
- CBQ4510H.86A.0121.2010.0412.0911
- ME Firmware Revision: 5.2.20.1030
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007

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- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Updated the ME firmware to version 5.2.20.1030.
- Added setup option of "Power On - PXE Boot" for the question of Wake On LAN S5.
- Added setup question C1E to Enable/Disable CPU C1E.
- Added setup question to Enable/Disable CPU C-State.
- Fixed issue where yellow bang appears in Device Manager for certain graphics card (not enough resources).
- Updated USB regarding code to support up to 30 USB devices.
- Filled the subsystem ID for the P2P bridge (bus0 device1E function0 register54).

**BIOS Version 0119**

**About This Release:**

- February 23, 2010
- CBQ4510H.86A.0119.2010.0223.1522
- ME Firmware Revision: 5.2.0.1018
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Added support for Remote PC Assistance Technology (RPAT).
- Fixed issue where the TXT Getsec test failed and reset with LT crash code 0xC0002C41.
- Fixed issue where certain USB optical mouse does not work.

**BIOS Version 0115**

**About This Release:**

- February 01, 2010
- CBQ4510H.86A.0115.2010.0201.1427
- ME Firmware Revision: 5.2.0.1018
- Integrated Graphics Option ROM Revision: 1940
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Fixed issue where some PCIe X1 LAN cards do not work in Windows\*.
- Fixed issue where system does not boot to the operating system with certain video cards installed.
- Fixed issue where system takes a very long time to boot with a 64-bit operating system.
- Updated the VBIOS to revision 1940.
- Fixed issue where system hangs while executing the command "itoolkit ext -config" if the parameter of "DEVICE=HIMEM.SYS /testmem:on" is in config.sys.

**BIOS Version 0111**

**About This Release:**

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

- December 10, 2009
- CBQ4510H.86A.0111.2009.1210.1144
- ME Firmware Revision: 5.2.0.1018
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Updated the QST Thermal profile.
- Updated the SPI flash module to support the W25QXX series.
- Fixed issue where the available memory in operating system should not be less than 3030 MB when using graphics cards with 4 GB memory.
- Added Remote PC Assist (RPAT) support.

**BIOS Version 0109**

**About This Release:**

- November 26, 2009
- CBQ4510H.86A.0109.2009.1126.1057
- ME Firmware Revision: 8.5.2.0.1018
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Fixed issue where multi-monitor does not pass with PCIe x1 Video test with certain PCIe x1 graphics card.

**BIOS Version 0107**

**About This Release:**

- November 13, 2009
- CBQ4510H.86A.0107.2009.1113.1338
- ME Firmware Revision: 8.5.2.0.1018
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Implemented Security Phase-2 requirement.
- Fixed issue where the system could not be woke up from S1 by real-time clock (RTC).

**BIOS Version 0103**

**About This Release:**

- November 04, 2009
- CBQ4510H.86A.0103.2009.1104.1314
- ME Firmware Revision: 8.5.2.0.1018
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

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**New Fixes/Features:**

- Fixed issue where system fails at checkpoint 13h while resuming from S3.
- Added new setup item for Mono Speaker Header, specific to certain DQ45CB SKUs.
- Enabled C3/C4 for certain SKUs.

**BIOS Version 0101****About This Release:**

- September 28, 2009
- CBQ4510H.86A.0101.2009.0928.1248
- ME Firmware Revision: 8.5.2.0.1018
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**New Fixes/Features:**

- Updated the security implementation to prevent the system from booting with large BMP logo.
- Fixed issue where Express BIOS Update silent mode failed after SP2 update on Windows Vista\*.
- Added the function for WOL from G3 state.
- Fixed issue where the system would be unbootable if unsuitable manual memory settings are used.
- Updated ME firmware to version 5.2.0.1018.
- Fixed issue where the system would hang during POST if using certain wireless keyboard.
- Fixed issue where the system would reboot automatically when running RMRestore\* tool.
- Added feature for Recovery of iTPM from Coin Battery Removal.
- Added EFI MEBX support.
- Fixed issue where all commands sent from the SCCM OOBMC hang the boot process.

**BIOS Version 0093****About This Release:**

- July 24, 2009
- CBQ4510H.86A.0093.2009.0724.1353
- ME Firmware Revision: 8.5.1.0.1167
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

**Note:**

**To take advantage of the new Intel® Management Engine power package that is included in this BIOS version, you must update the BIOS using the BIOS Recovery method. Refer to the BIOS Update Readme for instructions for BIOS Recovery. You can use any update method for all other changes in this BIOS version.**

**New Fixes/Features:**

- Changed the Intel® Management Engine (Intel® ME) power package setting from 3 to 5.

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- Fixed Inductance singing issue.
- Added "Hide All" option for "Expansion Card Text" item in Setup.
- Added a patch for issue where Iflash2 /s would dead loop.
- Added updates to improve security.
- Fixed issue where Task Manager shows high CPU usage when using RAID configuration.
- Fixed issue where system BIOS could not flash back to the version 0085 or earlier after implementing the security features.
- Added the F12 key support in SOL for Alternate and VT100+ terminals.
- Implemented Intel TXT V1.4 requirement.
- Implemented the requirement of BIOS\_Downgrade\_Protection\_specification\_000\_9\_final.doc.
- Added the UQI string of "Detect Missing Fans" item and changed the option sequence for the UQI requirement.
- Fixed issue where certain quad port graphics card has no video output during post.
- Fixed issue the display of the F2, F7, F10 & F12 prompts cannot be enabled or disabled.
- Implemented the Intel Security requirement.

### **BIOS Version 0085**

#### **About This Release:**

- June 10, 2009
- CBQ4510H.86A.0085.2009.0610.1407
- ME Firmware Revision: 8.5.1.0.1167
- Integrated Graphics Option ROM Revision: 1800
- SATA RAID Option ROM Revision: 8.6.0.1007
- PXE LAN Option ROM Revision: Intel(R) Boot Agent GE v1.3.27

#### **New Fixes/Features:**

- Implemented the F7 Flash BIOS Update feature.
- Fixed issue where system locks during DHCP when LAN drivers are loaded from floppy image via IDE-R.
- Fixed issue where E7600 processor frequency is displayed wrong in BIOS Setup.
- Fixed issue where VTD Test fails: The MMIO base for the PCI devices should be 4KB alignment.
- Updated VBIOS to V1800.
- Updated PXE boot agent to Intel Boot Agent v1.3.27.

### **BIOS Version 0083**

#### **About This BIOS:**

- May 13, 2009
- CBQ4510H.86A.0083.2009.0513. 1002
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1760
- ME Version: 8.5.1.0.1167
- RAID Option Rom version: 8.6.0.1007

#### **New Fixes/Features:**

- Added BIOS F10 menu feature.

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- Fixed issue where system could not boot normally after the system password entered with a customer logo modified BIOS generated with Intel® Integrator Toolkit.
- Fixed issue where system does not refresh display screen when power-button is used to bring out of S3 state.
- Fixed issue where WHQL test would fail with E5200 processor.
- Added option for F7 update BIOS menu.
- Fixed issue if USB Emulation type is set as Auto, the disk format should depend on the media format.
- Fixed issue where splash screen disappears after the password entry screen
- Updated processor support.

<b>BIOS Version 0079</b>
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**About This BIOS:**

- April 14, 2009
- CBQ4510H.86A.0079.2009.0414.1340
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1760
- ME Version: 8.5.1.0.1167
- RAID Option Rom version: 8.6.0.1007

**New Fixes/Features:**

- Fixed an issue where the system could not boot from a hard drive when there were two optical drives attached in RAID mode.
- Fixed an issue where eSATA device's were not being properly detected by the operating system under certain conditions.
- Reliability enhancements made to the BIOS Recovery function.
- Fixed an issue where the setup option of Trusted Platform Module was not properly changed to the default value after executing "IToolkit REMOVE".
- Performance and reliability improvements made for iQST.

<b>BIOS Version 0075</b>
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**About This BIOS:**

- March 10, 2009
- CBQ4510H.86A.0075.2009.0310.0906
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1704
- ME Version: 8.5.0.2.1122
- RAID Option Rom version: 8.6.0.1007

**New Fixes/Features:**

- Fixed issue where system would only try PXE boot if PXE was set first in the boot order.
- Fixed issue where Intel® AMT Web UI doesn't report disk information when SATA is set to RAID.
- Updated SMBIOS DIMM information for Type 17.
- Fixed issue where an ACPI error would be sent to the Windows Event Log when an PEG video card is plugged into the board.
- Fixed a FAN surging issue.

- Change the default boot sequence to CD, FDD, HDD, PXE.
- Fixed issue where the WHQL Crash test would fail with certain video cards.
- Fixed the issue that disabling the ME in MEBX would cause the system could not boot to Vista or WinPE2.0.
- Fixed an issue where the BIOS boot order would disappear after pressing F9 with ITKFE modified BIOS.
- Fixed the issue that the command Iflash2 /MD could not load the default BIOS module.
- Fixed an issue where the system FAN revs in OS looking for another fan if Fan Detection set to Never.

<b>BIOS Version 0073</b>
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**About This BIOS:**

- January 22, 2009
- CBQ4510H.86A.0073.2009.0122.1353
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1704
- ME Version: 8.5.0.2.1122
- RAID Option Rom version: 8.6.0.1007

**New Fixes/Features:**

- Fixed issue where system is not able to boot from USB optical drive.
- Fixed issue where system hangs with certain graphics cards.
- Updated the Fan Control implementation.
- Corrected the ICH10 Temperature Reading method from IQST.
- Implemented the F7 BIOS Update Tool.
- Changed the SOL copyright from "2004-2007" to "2004-2008".

<b>BIOS Version 0069</b>
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**About This BIOS:**

- December 08, 2008
- CBQ4510H.86A.0069.2008.1208.1458
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1704
- ME Version: 8.5.0.1.1122
- RAID Option Rom version: 8.6.0.1007

**New Fixes/Features:**

- Fixed issue where Intel® Desktop Utilities shows incorrect value for Memory Slots.
- Fixed WHQL issue on DQ45CB - Vista 32: TPM TCG Integration Test, do not wait for user for any HOT key and automatically select F10 behavior.
- Fixed issue where BIOS should allow headless operation - if keyboard/mouse not found, the system should not pause in POST.
- Fixed issue where user settings in Set Sensor Threshold page should not revert to default value after system reboot.
- Implemented the functions of Fan Control > Automatic Fan Detection item in Setup menu.

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



**Note:**

Express BIOS Update and iFlash can not flash from a BIOS version later than 0061 back to 0061 or earlier due to the Intel® ME firmware update.

<b>BIOS Version 0067</b>
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**About This BIOS:**

- November 27, 2008
- CBQ4510H.86A.0067.2008.1127.1732
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- VBIOS info: Build Number:1704
- ME Version: 8.5.0.1.1122
- RAID Option Rom version: 8.6.0.1007

**New Fixes/Features:**

- Fixed issue where Windows\* does not resume properly if serial ATA is configured for RAID.
- Fixed issue where no PECI information is displayed for Celeron 4xx CPUs.
- Fixed issue there system will hang during POST with certain graphics cards.
- Fixed issue where chassis type is not pre-programmed.
- Fixed issue where Intel® Desktop Utilities shows incorrect values for memory slots.
- Added workaround for issue if iQST is disabled in MEBX, the system will stay a long time on the Hardware Monitoring screen.
- Fixed bouncing ball XML issue
- Implemented the QST Lock/Unlock function in maintenance mode.
- Fixed issue where UEFI Windows halts during shutdown.
- Fixed issue where the default year restores to 2004 in the Event Log after clearing CMOS.
- Updated setup strings.
- Changed ASPM L0 to disable.
- Fixed issue with display of High Definition Front Panel Audio.
- Fixed issue where RMRESTOR utility hangs with himem.sys loaded.
- Fixed issue where itoolkitw.exe does not work to flash the BIOS in WinPE.
- Fixed issue where iFlash fails when Intel ME is disabled in MEBX configuration.
- Fixed issue where system hangs after F10 is pressed to select boot device.
- Updated chipset porting code according to spec v1.04
- Updated iQST thermal profile.
- Updated vBIOS to V1704.
- Updated CPU temperature string at Hardware monitor page.
- Update ME firmware to 1122.
- Updated RAID option ROM to v8.6.0.1007.
- Fixed poor iQST performance.
- Set PAVP default to Lite and hidden.
- Removed "Size" item of USB Mass Storage Emulation Type.
- Added ESataEnableLockHide variable in SETUP\_DATA.
- Removed the string display on the screen when NVRAM checksum errors after iFlash.

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- Fixed issue with the iFlash /md command.

**Note:**

Express BIOS Update and iFlash can not flash from a BIOS version later than 0061 back to 0061 or earlier due to the Intel® ME firmware update.

<b>BIOS Version 0061</b>
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**About This BIOS:**

- October 10, 2008
- CBQ4510H.86A.0061.2008.1010.1506
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- ME Version: 8.5.0.1.1111
- RAID Option Rom version: 8.5.2.1002

**New Fixes/Features:**

- Fixed the issue that the descriptor region can not be updated when doing BIOS recovery.
- Fixed issue that enabling TXT in BIOS will cause system to hang during POST after update the system BIOS through Iflash.
- Fixed issue that EFI operating system can not be installed when set to RAID mode.
- Fixed issue that system will have a very poor performance when boot with 8 GB memory and PCIE X16 graphic card.
- Fixed issue where OA2 test fails.
- Fixed issue where system hangs with certain 3<sup>rd</sup> party graphics card.
- Fixed issue where system will show a CMOS checksum error warning message after the TPM is initialized.
- Fixed issue where the system can not power up automatically when performing the TCG test with WHQL.
- Fixed issue where AMT web interface doesn't report disk information when SATA is set to RAID mode.
- Fixed issue where when in SOL boot to BIOS, pressing F10 brings up exit without saving changes instead of save changes and exit.
- Added patch for the issue of GATE A20 can not open.
- Fixed Intel® Integrator Toolkit (ITK) issue where flash fails from CBU execution.
- Fixed issue where ITK server does not correctly report BIOS flashing result when flashing process fails.
- Changed the SMBUS clock from 100KHz to 80KHz.
- Updated MRC to version 2.50
- Updated AMT and chipset porting code according to the latest CRB code.
- Disabled VE.

<b>BIOS Version 0059</b>
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**About This BIOS:**

- August 25, 2008
- CBQ4510H.86A.0059.2008.0825.1655
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- ME Version: 8.5.0.1.1111

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- RAID Option Rom version: 8.5.2.1002

**New Fixes/Features:**

- Fixed issue where changing the memory configuration by adding or removing one or more DIMMs, the system does not detect the current memory configuration properly.
- Added the patch for NvRam backup solution.
- Enabled PDR Region in Fitc configuration table.
- Fixed issue where system will always do full reset when clearing CMOS.
- Fixed issue where after BIOS is updated by iFlash or Express BIOS Update, enabling ITPM, ITXT and VTD will cause system hang at post code EB.
- Fixed issue where processor information is incorrect.
- Fixed issue when setting Intel® ME Power package as 3 and After Power Failure as Last State, then enter S3 state, remove the system power and then plug in, the system does not boot.
- Fixed issue where installing any password (User or Administrator), the Intel® ME fails.
- Changed iQST display frequency to 1 second.
- Fixed issue where the ME recovery function does not find any USB mass storage.
- Corrected the SATA Rapid recovery Oprom and SATA RAID Oprom.
- Fixed issue where the system will lose one or more devices attached on the SATA ports when it is in RAID Mode.
- Fixed issue where system can not perform auto recovery when update BIOS fails.
- Added the AMT setup 2.1 function.
- Fixed the VPRO PET test fail issue.
- Fixed issue when typing a valid password 3 times, CTRL+ALT+DEL still can perform a system reset.
- Fixed issue where Chassis Intrusion message will be shown twice.

<b>BIOS Version 0051</b>
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**About This BIOS:**

- August 13, 2008
- CBQ4510H.86A.0051.2008.0813.2253
- GBE firmware bin version: ICH10D\_82567LM\_A0
- PXE Option Rom file: Intel UNDI,PXE-2.1 kit387754 (build 086)
- ME Version: 8.5.0.1.1111
- RAID Option Rom version: 8.5.2.1002

**New Fixes/Features:**

- Initial production BIOS release

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