



BIOS Update Release Notes

PRODUCTS: DP55KG, DP55SB, DP55WG (Standard BIOS)

BIOS Version 5531 - KGIBX10J.86A.5531.2010.0521.1135

About This Release:

- May 21, 2010
- ME Firmware: Ignition ME 6.0.30.1199
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.38, PXE 2.1 Build 087
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Enhanced BIOS Setup to honor feature dependencies between EIST, Turbo Boost Technology, and CPU Idle State features.
- Updated processor support.
- Fixed issue where the default for turbo related setting is invalid when turbo mode is disabled.
- Fixed issue where performance settings should not appear in Intel® Integrator Toolkit.
- Fixed issue where system will hang when certain optical media is inserted.
- Fixed issue where certain optical drives would not boot DVDs from cold boot.
- Fixed issue where certain setup item is grayed out.
- Fixed issue where certain setup item changes color.
- Improved BIOS boot time ~1.7 seconds.
- Freed up 256MB of system memory for operating system usage when more than 3 GB of memory is installed.
- Added setup option to allow user to override the Front Panel Audio type to HD or Legacy.
- Added clear screen during POST.
- Fixed issue where the system would boot slow or appear to hang when loading the operating system when 6 GB of memory is installed.
- Fixed issue where Wake-on-LAN fails from S4/S5.
- PCH BIOS Specification update 1.05 changes.
- Added BIOS workaround for excessive USB interrupt activity.
- Added F7 update to restrict the CVT/RVT and check the OEM version.
- Fixed issue where Express BIOS Update causes an application error when running while UEFI Boot is enabled.
- Fixed issue where UEFI bootable device is not recognized when it is connected to 3rd party PCIe SATA controller.
- Fixed PCH misc. registers test issue.

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- Fixed issue where CPU Max Non-Turbo Ratio does not restore to default after OS watchdog timeout.
- Fixed issue where PCIe Frequency setting causes Intel® Desktop Control Center failure.
- Added new method to get the CPU cache information from the Deterministic Cache Parameter.
- Fixed issue where overridden voltages do not restore to default after OS watchdog timeout.
- Fixed issue where tRC does not restore to default after OS watchdog timeout.

BIOS Version 4905 - KGIBX10J.86A.4905.2010.0402.1639

About This Release:

- April 1, 2010
- ME Firmware: Ignition ME 6.0.30.1199
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.38, PXE 2.1 Build 087
- Marvell* Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Fixed issue where memory above 4GB was not available to the operating system.
- Fixed long delay until system reboot after BIOS update.

New Fixes/Features:

- Increased tRRD setup option range.
- Fixed issue where watchdog timeout in operating system will not restore setting to defaults.
- Reduced complexity and improved XTU watchdog handling.
- Improved BIOS boot time ~1.7sec.
- Fixed issue where board will auto shutdown.
- Increased tRFC setup option range.
- Changed CHiL Vreg scale to 140A.
- Added x12 memory ratio for certain processors.
- Fixed issue where x12 memory ratio was not set correctly.
- Added support for single flash update to add new microcode.

BIOS Version 4816 - KGIBX10J.86A.4816.2010.0317.1519

About This Release:

- March 17, 2009
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.38, PXE 2.1 Build 087
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

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New Fixes/Features:

- Fixed watchdog timer and host clock display issues for XTU2.
- Fixed an issue where operating system fails to resume from hibernation when user enters BIOS Setup during POST.
- Fixed issue where the system would fail to resume from S3.
- Fixed SMBIOS memory structures mismatch installed hardware.
- Improved S3 resume time to pass WHQL.
- Fixed issue where memory overclocking using Host Clock will fail.
- Fixed issue where S3 resume times were too long when using 16GB of memory.
- Added support for new Intel® Core™ i3 and i5 processors.
- Fixed issue where CPU Max Non-Turbo Ratio is incorrect
- Reduced complexity and improved XTU WD handling.
- Added workaround for DIMMs where XMP profile is invalid.

BIOS Version 4752 - KGIBX10J.86A.4752.2010.0217.1029

About This Release:

- February 17, 2009
- ME Firmware: Ignition ME 6.0.30.1199
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.38, PXE 2.1 Build 088
- Marvell* Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Updated UQI for "No Video Beeps" option.
- Fixed issue where SMART error event logging more than the expecting numbers.
- Fixed issue where system will perform two POST cycles before boot.
- Added "No Video Detected" beep code and BIOS setup option.
- Updated SMBIOS to version 2.6.
- Added setup option to disable PCH RHM.
- Updated flash utility to skip updating the Intel ME region when firmware version remains the same to reduce flashing time.
- Fixed PCH DMI Receiver Overflow Uncorrectable Error that was causing error in USBHUB.SYS.
- Fixed a problem where the SATA port number was not correct in AHCI mode.
- Updated setup help text and ASCII art for USB Port Disabling options.
- Fixed stall at POST code 0x5A after warm reset with certain SATA drive in PCH SATA port 4 or 5.
- Added HDMI verb table.
- Fixed issue where wake-on-LAN (WOL) still works in S4 when WOL from S5 set to disable.
- Fixed issue where microcode did not get loaded during early POST.
- Fixed issue where operating system failed to resume from hibernation if user enters BIOS setup during POST.

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- Fixed issue where 2.25TB hard drive displayed incorrect size.
- Fixed S3/S4 cycling issue.
- Fixed issue where Intel® Integrator Assistant (IIA) is unable to set the LAN option back to factory default after being customized.
- Fixed issue where Bluetooth functionality is lost.
- Fixed issue where certain processor is not fully functional with XTU.

BIOS Version 4507 - KGIBX10J.86A.4507.2010.0105.0706

About This Release:

- January 5, 2010
- ME Firmware: Ignition ME 6.0.30.1199
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.37, PXE 2.1 Build 088
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Added BIOS code to ensure system is running in VT when the VT feature is enabled in BIOS.
- Greyed out the Maximum Non-Turbo Ratio option under the Performance setup page if the processor does not support the Flexible Ratio Limit.
- Updated USB configurations.
- Added ability to disable USB ports individually.
- Fixed intermittent POST hang with POST code 0x66 if user strikes keys rapidly during boot.
- Fixed Watchdog timer issue when it fires from operating system.
- Fixed dual PEG video slot issue with certain processors; note that a Recovery mode BIOS update is required for this fix.
- Fixed ACPI table issue with non-Turbo mode processors.
- Updated ME Ignition Firmware to build 6.0.30.1199
- Fixed issue that caused all voltage reprogramming during PEI phase of boot (very early POST).
- Updated BIOS setup strings for SATA drive configuration.
- Added authentication for PEI capsule file during recovery.
- Added option to enable/disable Bluetooth.
- Changed the L2 cache size display to reflect the total L2 cache size found on the processor package.
- Added option to turn off OS ACPI C2 state.
- Fixed Turbo Boost Technology display issue.
- Fixed issue where PCI resource gets allocated to PCIe memory map region.
- Fixed issue where system still able to be woke from S5 using add on PCIe LAN card when the Wake on LAN from S5 option was set to Stay Off.
- Fixed boot hang with POST code 0x5A after warm reset with certain hard drive connected to SATA port 4 or 5.

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- Fixed issue where processor runs at the minimum frequency when EIST is disabled.
- Changed trip point of CHiL VR controller for 2-4 phase.
- Added/updated some Setup Help Strings for Fan Control and Hardware Monitoring.
- Fixed issue where setting CPU Voltage Override Type to Static/Dynamic and CPU Voltage Override to Default caused board to hang.
- Fixed issue where CPU Voltage Override would not properly be disabled when changing from Overridden Mode to Automatic Mode.
- Added check to only display logo that is less than or equal to the supported resolution of 1024x768.
- Added Intel® Trusted Execution Technology support on PCH Platform.
- Changed flex module description of "HanksvilleDCUndi" and "HanksvilleUndi" to "LAN PXE Boot ROM".
- Updated fan setting processing to not allow 35s smoothing on the ADT7490.
- Fixed setup options to be grayed out when setup item itself is greyed out.
- Updated to Setup "+3.3v" and "Esc=Exit Setup" terms.
- Fixed frequency status display issue when using higher host clock frequencies.
- Fixed issue where SMBIOS Type 10 Video information is shown incorrectly.
- Added 12-byte firmware ID check before recovery starts when a .BIO file is found.
- Added workaround to fix LAN intermittent connection after wake from S3.
- Added support for External (PEG) video devices as long as PEG device is using x1, x4, or x8 lanes.
- Improved the workaround to cater for the Gen1 card detection issue during system reset.
- Fixed issue where USB Legacy Disable option does not work.
- Fixed issue with CPU and PCH temperature sensor error.
- Added ME BIOS Action workaround to fix slow boot on first boot after burn ROM and after recovery.
- Added the UQI for Host Clock Frequency to the Intel® Integrator Toolkit (ITK) hide list.
- Fixed issue where USB keyboard would not work in Setup and POST when USB Legacy is disabled.
- Fixed issue where TCG INT1A BB00h function call was returning incorrect values.
- Fix operating system hang issue when USB Legacy is disabled.
- Fixed issue where INT13 Boot Sector Virus Protection could randomly be enabled on some systems.
- Added support for dual PCIe slots running in x8 mode.
- Fixed issue where the SLI did not work in all configurations.
- Fixed system hang issue when installing new processor.
- Added capability to disable execution of software SMIs at runtime.
- Updated 82578DC/DM: Intel(R) Boot Agent V1.3.38
- Fixed issue where NVRAM PCIExpressRootPorts variable kept changing from boot to boot cycle.

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- Fixed issue where EIST disable leaves the processor with one core running at the expected ratio (the MAX Non Turbo Ratio in setup) and all other cores running at their safe minimum.
- Added hard disk SMART error support.
- Fixed issue where some TPM PCRs were not measured correctly.
- Added support in the flash update process to update GbE NV Image region.

BIOS Version 3878 - KGIBX10J.86A.3878.2009.1028.1049

About This Release:

- October 28, 2009
- ME Firmware: Ignition ME 6.0.0.1126
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.37, PXE 2.1 Build 088
- Marvell* Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Updated Intel(R) Boot Agent to V1.3.37.
- Fixed issue where LAN connection is intermittent after wake from S3.
- Fixed system hang issue when changing installed processors.
- Fixed issue where the SLI did not work in all configurations.
- Restored S3 specific files to the first boot block to improve S3 performance.
- Fixed issue where EIST disable was not writing PERF_CTRL to all cores.
- Fixed setup display issue to match setup SATA map to printed documentation.
- Fixed setup options to be greyed out when setup item is greyed out.
- Added ability to customize BIOS Setup skin based upon board AA#.
- Added feature for memory timings and command rate override.
- Fixed issue where BIOS setup shows event log with event date but without event type string.
- Updated CPU Socket name in SMBIOS.
- Changed the L2 cache size display to reflect the total L2 cache size.

BIOS Version 3822 - KGIBX10J.86A.3822.2009.0928.1349

About This Release:

- September 25, 2009
- ME Firmware: Ignition ME 6.0.0.1126
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.2)
- PXE Boot Agent GE v1.3.36, PXE 2.1 Build 088
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31

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- o SB IDE Mode: 1.1.0.L72
- o SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Updated non-vPro NV Image Rev 1.2.
- Added support in the flash update process to update GbE NV Image region.
- Added the UQI for Host Clock Frequency to the hide list in Intel® Integrator Toolkit.
- Fixed status display when using higher host clock frequencies.
- Fixed an Intel® ME display issue in setup.
- Added feature for memory timings and command rate override for certain processors.
- Fixed issue where PEG slot link speed and link width information displayed incorrectly.
- Fixed Dfx rule violations for TXT and CPU Fan Control.
- Fixed issue where watchdog was firing with multiple card readers installed.

BIOS Version 3712 - KGIBX10J.86A.3712.2009.0904.1845

About This Release:

- September 4th, 2009
- ME Firmware: Ignition ME 1.1.1126
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.0)
- PXE Boot Agent GE v1.3.35, PXE 2.1 Build 087
- Marvell* Option ROM
 - o KG IDE Mode: 1.1.0.L72
 - o KG RAID Mode: 1.2.0.31
 - o SB IDE Mode: 1.1.0.L72
 - o SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Fixed issue preventing tuning settings from being pushed into the BIOS.
- Added F2 Setup or F10 Boot menu beep.
- Implemented EDS spec update 1.55 changes.
- Added TPM feature.
- Updated ASF RCMP Capabilities supported Bit Masks.
- Fixed issue where Performance Status display of Memory Multiplier is incorrect when set to auto.
- Added the capability to show/hide the Vt and Vt-d setup option.
- Moved modules from primary to secondary boot block in order to be able to build the BIOS with debug mode enabled.
- Fixed issue preventing system from entering S3 when Intel® Desktop Control Center is installed.
- Fixed issue where system would hang at POST code 3Bh with 6GB or 7GB of system memory installed.
- Registered updates for secondary PEG slot
- Fixed performance degradation seen when running video testing with certain graphics cards.
- Changed default BIOS default time from 01/01/2006 to 01/01/2009
- Fixed issue where TPM ACPI table was not published.
- Updated CPU Socket name in SMBIOS.

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- Fixed issue where some TPM PCRs were not measured correctly.
- Implemented BIOS Setup reorganization: "Advanced" BIOS screen changed to "Configuration" BIOS screen; added new PCI/PCIe Add-In card page; added new Setup Boot Display Page and other Setup GUI Updates.
- New Marvell* BIOS Setup display.
- Added ability to customize BIOS Setup skin based upon board AA# being an Extreme Edition SKU.
- Added system BIOS workaround for issue where Marvell 6111 devices are identified as 6121 devices.
- Added sensor mapping support for P55 based platforms.
- Fixed issue where French/German/Spanish Language Capsule still showed in Intel® Integrator Toolkit Flex Module.
- Fixed issue where No Event Log when Thermal Trip occurs.
- Updated processor support.
- Fixed issue where USB-R keyboard and mouse not responding.

BIOS Version 3456 - KGIBX10J.86A.3456.2009.0822.1455

About This Release:

- August 21, 2009
- ME Firmware: Ignition ME 1.1.1126
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.0)
- PXE Boot Agent GE v1.3.35, PXE 2.1 Build 087
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Fixed a problem where system would hang at POST code 3Bh with 6GB or 7GB of system memory installed.
- Fixed issue preventing settings from being pushed into the BIOS.
- Added the ACPI control method _OSC for PCI Host Bridge Devices to workaround issue with certain plug-in card.
- Corrected the SpeedStep P0 state ratio to Max Non-Turbo Ratio + 1 if Turbo Mode is enabled to solve issue where the operating system reported different CPU speed.
- Updated Setup Option / Help String Text related to BLING LED.
- Updated boot sequence to skip the external SATA initialization if the device is disabled.
- Fixed AUX fan showing up in Intel® Desktop Control Center (IDCC) when it is not supported.
- Fixed long watchdog timer timeout for memory issues.
- Fixed Setup Memory Speed display issue with certain processors.
- Updated fan control settings to improve fan response and function with boxed thermal solution.
- Added feature to block compressed BMP file form integrated by Intel® Integrator Toolkit (ITK).
- Added PCH BIOS Specification Update v1.01.
- Added PCH EDS Specification Update v1.53.
- Fixed iFlash hang issue with all memory slots populated.

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- Fixed an issue that memory speed for empty DIMM slot is shown in Intel® Desktop Utilities (IDU).
- Updated initialization to clear PCIe error status.
- Fixed Processor Family in SMBIOS Type 4 structure for Intel® Core™ i7 processors.

BIOS Version 3206 – KGIBX10J.86A.3206.2009.0805.1855

About This Release:

- August 5, 2009
- ME Firmware: Ignition ME 1.1.1126
- SATA RAID Option ROM: (v8.9.0.1023)
- LAN Option ROM: (v1.0)
- PXE Boot Agent GE v1.3.35, PXE 2.1 Build 087
- Marvell Option ROM
 - KG IDE Mode: 1.1.0.L72
 - KG RAID Mode: 1.2.0.31
 - SB IDE Mode: 1.1.0.L72
 - SB RAID Mode: 1.2.0.31

New Fixes/Features:

- Initial production BIOS release

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