PRODUCTS: D946GZIS, D946GZTS (Standard BIOS)

BIOS Version 0087

About This Release:
- November 11, 2007
- TS94610J.86A.0087.2007.1111.0015
- VBIOS info:
  Build Number: 1518 PC 14.27 07/06/2007 17:11:20
- PXE info:
  Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed issue where system hangs on 2nd boot if 1st boot is in MFG mode.
- Updated processor support.

BIOS Version 0086

About This Release:
- September 21, 2007
- TS94610J.86A.0086.2007.0921.0015
- VBIOS info:
  Build Number: 1518 PC 14.27 07/06/2007 17:11:20
- PXE info:
  Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Updated Video BIOS Build Number: 1518 PC 14.27 07/06/2007 17:11:20.
- Workaround on DVMT GraphicsDriverMemorySize Option value to fulfill IIA requirement.

BIOS Version 0085

About This Release:
- September 04, 2007
- TS94610J.86A.0085.2007.0903.2020
- VBIOS info: Build Number: 1377 PC 14.18 09/25/2006 08:09:45
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed issue where ITK or IIA could not access Boot Priority List when all the boot devices disabled in the BIOS Setup.
- Updated processor support.
- Fixed Audio Code subsystem ID problem after resuming S3.
- Fixed issue where CPU fan runs in full speed.
- Implemented changes to support the ITK Map File Specification version 1.15.

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

- Fixed issue where flashing a large BMP Logo caused inability to reflash and possibly not boot.
- Added support for writing a new variable through .bio capsule.
- Added ITK Data Var Type 3 to store VAREQ variable.
- Fixed issue where IIA or ITK could not set boot order correctly.
- Fixed issue where ITK/IIA could not set Boot Order if the Boot Menu Type in the BIOS Setup was set to Advance.
- Fixed issue where ITK or IIA could not read boot drives' model strings.
- Added support for reporting capsule invocation results.
- Fixed an intermittent failure seen with EFI_VARIABLE in Windows environment.

BIOS Version 0080

About This Release:
- July 16, 2007
- TS94610J.86A.0080.2007.0715.2305
- VBIOS info: Build Number: 1377 PC 14.18 09/25/2006 08:09:45
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Update processor support.
- Fixed issue where setup control keys (i.e. ESC, TAB, Arrows, F9, F10, etc) does not perform as expected.
- Fixed issue where setup option selection failure.
- Fixed incorrect or corrupt display issues (non-Language).
- Fixed issue of OPTION ROM not displayed during POST when expected.
- Fixed issue of SMBIOS System Slot structures mismatch installed hardware.
- Fixed issue of USB keyboard doesn't work correctly with USB Legacy disabled.

BIOS Version 0077

About This Release:
- April 03, 2007
- TS94610J.86A.0077.2007.0403.1030
- VBIOS info: Build Number: 1377 PC 14.18 09/25/2006 08:09:45
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Updated processor support.

BIOS Version 0075

About This Release:
- March 21, 2007
- TS94610J.86A.0075.2007.0321.0923
- VBIOS info: Build Number: 1377 PC 14.18 09/25/2006 08:09:45
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:

- Fixed issue where system would hang booting Windows* XP with OEM Activation 2.0 data programmed, EIST enabled, and a Conroe-class processor installed in the system.
- Fixed issue where system would load default settings instead of user settings in maintenance mode.

BIOS Version 0071

About This Release:
- March 02, 2007
- TS94610J.86A.0071.2007.0302.1116
- VBIOS info: Build Number: 1377 PC 14.18 09/25/2006 08:09:45
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Added programming of PCI Subsystem Vendor ID and Subsystem ID for the PCIe Graphics bridge.
- Updated processor support.
- Added support for Windows Vista* Media Center OCCUR Host Firmware Support.
- Modified ACPI OSER support so that the Microsoft* Reference Block is now an optional parameter.
- Added support for ITK Map File Specification version 1.15.
- Modified Express BIOS Update for Windows Vista* issue.
- Fixed CPU fan running at MAX speed when certain processors installed.

BIOS Version 0067

About This Release:
- January 31, 2007
- TS94610J.86A.0067.2007.0130.1308
- VBIOS info: Build Number: 1377 PC 14.18 08/11/2006 17:22:22
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed issue where disk partitions are sometimes not seen during operating system installation.
- IRQ Fix for USB Interrupts.
- Fixed issue where system would not recognize CTRL+ALT+DEL key sequence from boot cycling machine.
- Fixed failures with the TCG ACPI Event Log when running the Vista* DTM TCG TPM BIOS Interface Test.
- Fixed issue where system hangs when trying to load bootable CD from a USB CD drive.
- Fixed display of cache for multi-core processors.

BIOS Version 0066

About This Release:
- January 18, 2007
- TS94610J.86A.0066.2007.0118.1637
- VBIOS info: Build Number: 1371 PC 14.18 08/11/2006 17:22:22
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed HPET failures when running the Vista DTM testing.

BIOS Version 0064

About This Release:
- January 5, 2007
- TS94610J.86A.0064.2007.0105.1436
- VBIOS info: Build Number: 1371 PC 14.18 08/11/2006 17:22:22
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Added blocking and warning message display for certain unsupported processors
- Set VT to disabled by default in BIOS setup menu
- Fixed ACPI failures when running the Vista DTM TCG TPM Integration Test (TPMSYSINT.EXE).
- Fixed failures with the TCG ACPI Event Log when running the Vista DTM TCG TPM
- Fixed SMBIOS Type 0 and Type 1 structure size failures in Windows Vista DTM SMBIOS HCT tests (SMBIOSHCT.EXE).

BIOS Version 0048

About This Release:
- October 19, 2006
- TS94610J.86A.0048.2006.1019.1452
- VBIOS info: Build Number: 1371 PC 14.18 08/11/2006 17:22:22
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Added support for OEM Activation 2.0.
- Moved USB2.0 Enable option to maintenance screen.
- Removed redundant SDRAM qualifier string in Setup in memory configuration screen.
- Fixed SMBIOS HCT failure where Type 0 "Enable Targeted Content Distribution" bit not set (for future operating system).
- Added support for Heceta6P.

BIOS Version 0047

About This Release:
- September 11, 2006
- TS94610J.86A.0047.2006.0911.0110
- VBIOS info: Build Number: 1371 PC 14.18 08/11/2006 17:22:22
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Increased display duration of Intel logo.
- Fixed problem where screen cursor is shown before Intel logo.
- Fixed issue where serial port BIOS setup option is not working properly.
- Updated Video BIOS to build 1371
- Fixed problem where setup options for floppy drive is unavailable.
- Removed language module from ITK map file

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- Changed LAN module description in ITK map file
- Added feature to show warning message and automatically shut down when unsupported 1066MHz FSB processor is installed.
- Fixed typematic issue with USB keyboards
- Fixed long delay during POST when certain CD-ROM is attached.
- Fixed issue where certain DVD-ROM drive is not detected at boot.
- Corrected the order of options for memory speed and tCL in BIOS setup such that fastest option is on top.
- Fixed issue where BIOS setup displayed processor frequency as 3.6GHz instead of 3.06GHz

BIOS Version 0040

About This Release:
- August 14, 2006
- TS94610J.86A.0040.2006.0814.1124
- VBIOS info: Build Number: 1348 PC 14.18 06/22/2006 11:01:34
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Updated board type to uBTX.
- Fixed a problem where "Clear BIOS Passwords" caused the system hang when it was performed after moving to other pages.

BIOS Version 0038

About This Release:
- July 30, 2006
- TS94610J.86A.0038.2006.0730.2034
- VBIOS info: Build Number: 1348 PC 14.18 06/22/2006 11:01:34
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed issue where benchmark application crashed or had low performance issues.
- Fixed issue where CPU fan spins at 100% with certain processors.
- Updated DVMT setup option for internal graphics.

BIOS Version 0034

About This Release:
- July 19, 2006
- TS94610J.86A.0034.2006.0719.1125
- VBIOS info: Build Number: 1348 PC 14.18 06/22/2006 11:01:34
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed problem where no Internal Graphics option available in BIOS setup menu.
- Fixed problem where video becomes wavy after wake from S3.
- Fixed problem Intel Master brand logo not shown with certain processors.
- Added hard disk SMART error support.
- Fixed issue where USB mouse only would not work with certain HDD protection card.

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- Updated to Video BIOS Build Number: 1348 PC 14.18 06/22/2006 11:01:34.
- Improved bad SPD detection to allow a wider range of BAD SPD values to work.
- Zero out unused bytes during GetVariable call in PEI to works around code that does not check to see that the variable read was smaller than expected. In particular, help give code reading the setup questions a default value of 0 for new questions on the first boot after a BIOS upgrade.
- Added GMCH OpRegion/SWSCI Implementation to support the new DVMT 4.0 feature.
- Fixed a problem where PEG video devices that contain bridges do not work as the primary video device.
- Fixed a problem where the nominal (TCL-TRCD-TRP-TRASMin) values were calculated and displayed wrong.
- Added support for reporting capsule invocation results.
- Synched release3 CPU changes to release 8.
- Fixed an intermittent problem where the system would do a global reset when a CTRL+ALT+DEL or other soft reset was issued from an OS.
- Added work-around for CMP enable/disable issue, Updated STPGNT programming.
- Fixed the issue that when there are 3 partitions in HDD: if the first partition is deleted, BIOS will not be able to recognize the other two partitions, and if the second partition is deleted, BIOS will not be able to recognize the third partition.
- Fixed problem where hardware monitoring page not showing wrong field for 1.25v.
- Fixed problem where setup option not shown for Serial COM1.
- Fixed the problem where operating system could not get Wake up cause after resuming S4.
- Fixed S4 cycling hang issue.
- Setting primary video according to the chipset.
- Fixed a problem where the PCI configuration reads to extended PCI configuration space using INT1A functions did not work as expected.
- Fixed a problem where the CSM driver was printing out a 00h POST code during mid POST.
- Changed the over-clocking style for CK505 clock.
- Added Flex Variable write support.
- Fixed a problem where Boot Order in Setup will revert back to default if the user "ESC" from other sub-menu.
- Modified the RTC wake events to be SCIs instead of SMIs.
- Added new fields for ATE.xml
- Fixed issue where certain ATM card reader causes POST delay when USB Legacy "Enabled."
- Fixed issue where certain floppy-emulation images were unable to load from USB CD-ROM drives.
- Modified SMBIOS Runtime Plug-and-Play functions to return "Not Supported" on systems not supporting SMBIOS Runtime functions.
- Fixed issue where multiple SCSI cards were not detected with PEG card installed.
- Workaround for detecting PCI express cards. This potentially fixes problems where the system would hang at POST code 40h, 30h, or 00h.
- Fixed a problem where the ISA enable bit was not restored on S3 resume, for the PCI bridge (bus 0, Device 30, Function 0). Also fixed a problem where the SMBUS register did not restored.

- Workaround for detecting PCI express cards.
- Added support for SLP_S4# stretching.
- Fixed problem where the system could hang with more than 2GB of memory installed, and LAN enabled in setup.
- Show F10 Boot Menu option on splash screen.
- Fixed issue where EFI boot floppy would not boot from USB floppy drives.
- Fixed issue where USB HID keyboard bar code scanners were dropping characters under DOS.
- Fixed issue where certain USB flash drive was not detected by the BIOS.

BIOS Version 0025

About This Release:
- July 03, 2006
- TS94610J.86A.0025.2006.0703.1026
- VBIOS info: Build Number: 1329 PC 14.18 05/12/2006 11:09:00
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Fixed problem where BIOS setup menu corrupted when pressing F9 key in 'Additional System Information' and 'Advanced' page.
- Added audio SSID
- Turn off Manageability Engine in MRC

BIOS Version 0023

About This Release:
- June 27, 2006
- TS94610J.86A.0023.2006.0627.1019
- VBIOS info: Build Number: 1329 PC 14.18 05/12/2006 11:09:00
- PXE info: Intel(R) Boot Agent FE v4.1.17

New Fixes/Features:
- Initial production BIOS release

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