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OPSD BIOS ENGINEERING

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DATE: March 29, 2001

TO: OPSD Business Unit

CC: iPG / OPSD BIOS Engineering

FROM: iPG / OPSD BIOS Engineering

SUBJECT: CA81020A.86A Standard CA810E BIOS Production 8

About This Release

- **BIOS String:** CA81020A.86A.0017.P08.0103221149
- **Video BIOS Version:** 3.00. build 2267
- **UNDI PXE Version:** 2.0 Build 82
- **BIS Release:** 9.0
- **SCSI BIOS Version:** N/A
- **IDE RAID Version:** N/A
- **Language Sets Supported:** {US ES} {US DE} {US IT} {US FR} {US JP}

Features/Errata Fixed in This Release

P08-0017
- Pentium® III processor E76 Erratum
- Added new processor code for D0 stepping.
- Dynamically detects the current year at build time for copyright string.

P05-0013
- Added new processor code.
- Updated the video Bios.
- Fixed S3 with Microsoft* Windows ME* (ACPI).
- Added 1Ghz support.
- Fixed S3 suspend with Microsoft Windows* 98SE (ACPI).
- Fixed the issue of Bios displaying "Memory size decrease" when CMOS Battery is low.
- Fixed the issue of Bios displaying "Memory size decrease" when CMOS battery is corrupted.
- Fixed the issue of Bios not displaying date and time error when CMOS battery is corrupted.
- Fixed WHQL errors associated with S3 ACPI methods, if the CMOS setup option for the ACPI sleep state is set to S1 Sleep state. Removed the dependency of ACPI sleep state supported, while defining the deepest wake capable sleep state for all the Wake devices.
- Fixed Ultra DMA timing error for ATA-100 devices in ICH platforms.
- RPM support.
- Fixed ACPI Suspender test
- Fixed Audio after resuming from S3
- Fixed Video after resuming from S3
- Fixed BIOS functionality involving format size with 4 IDE devices including an LS-120
- Rapid Boot Bios.
- Fixed CPU reporting the wrong speed, when a processor is installed at the CPU speed of 650Mhz the reported speed is 633Mhz.
- Fixed restore to BIOS or Custom defaults
- Express Bios Update.

P04-0008

- Fixed unable to enter S3 state due to Fan Tach 2 interrupt issue.
- Fixed incorrect speed displayed during POST & SETUP with supported processors running above 800 MHz.
- Fixed issue where BIOS detects an option ROM on 3COM EtherLink XL PCI cards that don't have an option ROM.
- Fixed hang whenever Novell* BootWare* PRO-100B v1.00 card is in the system.
- Optimized event log initialization and updates for faster POST execution.
- Fixed issue with Option ROMs getting keypresses.
- Improve setup message handling.
- Fix stuck key handling to allow setup entry key to be held down without generating keyboard error.
- Added support for POST status screen that will appear just before booting the operating system if and only if the toggle key was pressed during POST.
- Fixed issue where FDD POST errors were getting lost.
- Fixed booting of floppy emulated CDROMs on SCSI CDROM drives with Adaptec SCSI cards.
- Implemented the releasing of IRQ 12, 14, and 15 if no device is using the channel.
- Added BBS (BIOS Boot Specification v1.01)
- Fixed issue where USB Legacy was not working when doing a shutdown to MS-DOS* from Microsoft* Windows* 98.
- Fixed problem where Adaptec* 2940 will hang upon entering its Setup Menu.
- Fixed issue where Processor Speed was being set to a default state after loading defaults in Setup. This only occurred when the frequency multiplier was greater than 5X.
- Corrected initialization of SMBIOS Type 15 Event Log structure.
- Fixed issue where Processor Serial Number comes up ENABLED in the SETUP when the board is booted for the very first time.
- Fixed WOL hang with 3COM* Fast EtherLink* 3C905x
- Fixed issue where boards would sometimes hot-start during initial runs in manufacturing.
- Fixed Type 16, 17, 19, 20 SMBIOS Failures.
- Fixed issue where audio did not work on a cold boot.
- Fixed issue where system took more than a minute to resume from S3.
- Added support for Int 15, function E801.
- Fixed installation of Novell Netware* and Redhat* Linux.
- Fixed a problem where the f000 area was writeable after the BIOS returned control to the OS after a S3wake up.
- Fixed the System hang at post code A6 with ES1373 card after resume.
- Bios setup can not allow parallel port to use I/O range 228. This is illegal per PC99
- Fixed issue where the processor brands and speed extensions are not displayed correctly.
- Allow User Password level to be set without setting User password.

P03-0006
- Updated the video BIOS.
- Added extended speed to the Maintenance mode processor pick list
- Updated the Intel Copyright date.
- Added fix for TSMC ICH.
- Incorporated the latest PC99 fixes.

P02-0005
- Fix false Fan Tach2 PME interrupt during shutdown.
- Updated PXE code to build 74 to fix a double reboot issue in manufacturing.
- Added Support for Pentium® III Processor in SMBIOS Structures.
- Fixed issues with Type 17-20 SMBIOS memory structures.
- Fixed hot start issue in manufacturing.
- Fixed issue where system would delay before booting Windows NT* when using a SCSI drive and not having IDE-HDD before the SCSI Adapter in the boot order.
- Modified the setup question for the floppy A/B type to automatically disable and hide when the floppycontroller question is set to disable.
- Fixed some Microsoft ACPI tests that are not currently part of the HCTs.
- Added BIOS workaround to make TI SN104975VF USB Hub work with USB Legacy and slow speed

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USB devices.
- Completely disabled CPUSLP# assertion for S1 state (ICH Errata 41).
- Fixed WHQL PC99 "IDE & Video Disable Test".
- Changed "Motherboard" DMI POST string to say "Desktop Board".
- Fixed issue where HCT 9.0 Unreported Memory fails in Windows 2000.
- Updated support for Boot Integrity Services (BIS) to release 9.
- Fixed issue where ARMD-FDD devices would not work if the Floppy Controller was
- DISABLED and Floppy A Type was set to "Not Installed" in SETUP.
- Fixed a problem where the system would hang if the system tried to execute int19 more than one time.
- Removed Floppy Drive from Boot Menu when Floppy Controller and Floppy Drive is not present in the system.
- Fixed issue where FDD POST errors were getting lost.
- Modified the setup question for the floppy A/B type to automatically disable and hide when the floppy controller question is set to disable.
- Removed parallel port I/O range 228 from Setup. This is illegal per PC99.
- Fixed issues where focus was being lost when questions would disappear due to loading defaults.
- Added support for SSDT Table to declare that the HW does not support STR when selected in Setup or if some add-in components do not support STR.
- Increased the maximum number of PCI busses from 16 to 256.
- Fixed issue where going into and out of S3 state and then restarting to MSDOS mode from Microsoft Windows* 98 causes the USB Keyboard to be lost.
- Modified the silent boot to not display option ROM messages during POST. Fixed a problem where the screen toggle key did not work during late POST. Fixed a problem where the small logo did not show up after the BIOS switched to the BIOS screen and an error message was displayed. Also fixed a problem where the screen would be cleared during POST when unattended start was enabled.
- Added error beeps if a video adapter is not detected during POST (one long beep, followed by 2 short beeps).
- Skipped invoking INT-18 if no BBS boot device or media found during INT-19.
- Fixed problem where if IDE drives wouldn't show up if placed after SCSI drives.
- Updated SMBIOS Type 10 structures to correctly report the enabled/disabled status of onboard devices.
- Added SMBIOS Type 10 structure for onboard LAN device.
- Updated message to reboot and retry update if there is an error in the flash update.
- Updated ISA & 3-mode floppy bits in SMBIOS Type-0 BIOS Characteristics QWORD.
- Fixed booting of floppy emulated C-ROMs on SCSI CDROM drives with Adaptec SCSI cards.

P01-0003
- Initial released version

Known Errata with This Release

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