



DATE: November 10, 1999

FROM: Intel Customer Support

SUBJECT: 4R4CB0XA.86A Standard RC440BX BIOS Production Release 12, Build 18

About This Release

- 4R4CB0XA.86A.0018.P12.9910281736
- nVidia RIVA 128 ZX BIOS – 1.72C 95/100 MHz
- CPU BIOS Updates: MU633, MU634, MU650, MU651, MU652, MU653, MU672, MU673, MU166009

Features/Errata Fixed in This Release

P12-0018

- Corrected limited access string in BIOS user access.
- Fixed issue where non-SPD message displayed on every boot.
- Corrected potential peripheral configuration corruption issue with non-English language support.
- Added warning message for unsupported processors.
- Corrected potential issue with protector card.
- Corrected BIOS not reporting floppy support on some floppy formats.
- Corrected issues to boot from ZIP drive with removable media.

P11-0017

- Additional CPU BIOS Update for Pentium® III C0 stepping processors updated.
- Corrected for a potential ECC hang after a single bit error.
- Changed the Processor Serial Number (PSN) default value to disabled.

P10-0016

- CPU BIOS Update for Pentium® III C0 stepping processors.
- Updated L2 initialization location within POST.

P09-0015 [PLEASE UPDATE BOOT BLOCK]

- Added CPU BIOS Update for Pentium® III C0 stepping processors.
- Fixed issue where the mouse driver was unable to locate a PS/2 mouse.
- Support added for non-SPD memory.
- Improved ECC support.
- Added option to select primary video output (on-board AGP or installed PCI video)
- Fixed issue where pressing the escape (ESC) key during post could hang the system.
- Fixed issue where the MP APIC bit was incorrectly set
- USB now shares IRQ 9 with PIIX4 instead of taking an extra IRQ.
- Changed LPT1's default IRQ from 5 to 7.
- CAS Latency 2 SPD memory is now programmed for Latency 2 rather than (more conservative) 3.
- Processor serial number feature defaults to Disabled.
- Fixed issue with stack size during POST. Large stack size implemented in POST.
- Fixed issue with NVS ESCD error.
- Fixed issue with slow iflash from floppy.
- BIOS update feature now allows a new update when previously full.
- Fixed issue with OS/2 Warp* 4.0 suspend from Start menu.

P06-0012

- Added additional support for future Processors.
- Added Processor Serial Number enable/disable feature.
- Added support for future Processors.

P04-0010

- Fixed issue with logging ECC errors.
- Fixed issue with BIOS update API support error.
- Fixed issue with APIC enabled bit being set.
- Fixed issue with IR registers in the SIO being initialized correctly.
- Fixed issue when IDE drive type is set to AUTO, other settings are hidden. Previously the other settings were grayed out but were not necessarily correct.
- Fixed INT 15h to correctly program the user and manufacturing defaults.
- The system would hang at checkpoint 51h when Quiet Boot was disabled. This was due to a stack overflow, which is now corrected.
- If the floppy drive was disconnected or defective then there was a long delay (about 60 seconds) as the BIOS attempted to detect the floppy. Fixed so that there is no long delay.
- There were issues with Microsoft WINDOWS* 2000 at installation. A new ACPI version solves the issue and meets Microsoft ACPI criteria.
- Specific customer memory DIMM did not boot but caused a hang at 8Ch. Now if the SPD of the DIMM identifies it as a 66 MHz DIMM, the Power Down SDRAM enable bit is not set.
- Fixed issue where non-SPD DIMMs were not being detected dynamically.
- ACFGXREF error fixed.
- IDE hard drive detection was being aborted when the ESC key was pressed. Abort feature removed.
- Latest BIOS update for future processor included.
- Setup header menus changed to conform to existing standard.
- All pre-existing setup strings are translated. There are a few new strings not translated.

P03-0009

- Fixed issue where security feature is being turned off in certain cases.
- Boot to the correct device based on the boot order in setup. Issues included floppy being skipped, not booting to SCSI CDROM, always booting to network over SCSI regardless of setup.
- Fixed issue where Third Party IDE Controller add-in card with IDE drives hangs the system on int 19h.
- Fixed issue where Windows* 95 HCT test fails the Resume on Ring from Standby test with add-in Modem card.
- Fixed issue where Wake On AC Loss is not functional per Setup settings.
- Removed extra space in the string "2E8 " in the peripheral setup page for the COM ports 'base I/O address' setup options.
- Added feature where Windows* will not re-configure the system device nodes when a mouse is added/deleted.

P02-0007

- Fixed issue where LEDs do not change in APM Standby and ACPI modes.
- Fixed issue where Unattended Start functionality does not work when USB Legacy is disabled.
- Fixed issue where User Access Rights are not functioning correctly.
- Fixed Issue where intermittently the BIOS will falsely generate a "Enter User Password" message.
- Added support for flashable SPLASH logo.
- Added support for PME Stay Off/Power On functionality.

P01-0004

- Initial Release.