

## BIOS ENGINEERING

DATE: March 23, 2007
PRODUCT: SE7230NH1-E BIOS

# Build 1340 (Release Candidate)

### About This BIOS:

- Mar 09, 2007
- NH72310J.86B.1340.2007.0308.1650
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28
- Initializing Intel(R) Boot Agent GE v1.2.28
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:
  - M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB, M34F6404.PDB, M04F6509.PDB.
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Updated F65 microcode.
- Added setup option to disable/enable 4G memory remap support.
- Added feature to display BIOS setup string "Intel(R) Integrator Toolkit has modified this BIOS." When appropriate.

#### Known Errata:

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup will display incorrect information.

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

## Build 1334 (Release Candidate)

### About This BIOS:

- Nov 20, 2006
- NH72310J.86B.1334.2006.1119.2030
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28
- Initializing Intel(R) Boot Agent GE v1.2.28
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:

M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB, M34F6404.PDB, M04F6507.PDB.

• Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Fixed issue where recovery was not working.
- Added MAC address under system information.

#### Known Errata:

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup will display incorrect information.

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

## Build 1333 (Release Candidate)

## About This BIOS:

- Nov 17, 2006
- NH72310J.86B.1333.2006.1116.1638
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28
- Initializing Intel(R) Boot Agent GE v1.2.28
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB,M34F6404.PDB,M04F6507.PDB.
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

### New Fixes/Features:

- Added microcode F65.
- Fixed ITK workspace issue and WinPE flash (with ITK .BIO) issue.
- Fixed AMCC 3ware 9500S OpRom does not display during POS on PCI-X slot.
- Fixed AMCC 3ware 9550SX Oprom does not display during POS on PCI-X slot.
- Added support for Windows Vista SLP 2.0 for standard product.
- Added fix Hot Lava Hifn 6 Port Card NIC Card hang on system boot.
- Improved PCI OpRom memory map size determination method.
- Fixed slow recovery which take 60-120 seconds.
- Fixed issue where some CompactFlash IDE adapters are not detected by the system BIOS.
- Fixed issue where USB 2.0 speed was not working under BIOS USB legacy support.
- Added support for duplicating SLP string to multiple location with a single BIOS.
- Fixed dual display of message pop-up box in Setup.
- Fixed the key to set a new password when user did not enter an old password.
- Fixed Key Help alignment & format in setup.
- Fixed Discard Changes pop-up message box display in setup.
- Fixed illegal pop-up message box display in setup.

- Fixed Setup Browser would not refresh with F9 default Language.
- Fixed issue where Iflash, reboot method (/rb), would fail to update the BIOS ID.
- Fixed intermittent system hang at POST code 92.
- Fixed consecutive read and/or writes of password supplied secure variables.
- Fixed a problem where the variable update would fail. Symptoms being the system would hang at POST code 5Ah.
- Fixed microcode block being corrupted after BIOS update.
- Fixed "CMOS Timer Not Set" event has incorrect event count and incorrect time stamps.
- Fix for Intel® Integrator Toolkit.
- Fixed issue where Default Modules were not getting loaded upon Iflash /md switch.
- Added Thermal Diode support for new processors.
- Added feature to allow changing USB flash drive DOS emulation from BIOS SETUP.
- Added workaround for issue where IDER CD-ROM device was intermittently not being detected.
- Clear wake event status from PCIe Root Port registers.
- Fixed issue where system may hang in DOS accessing USB flash drives.
- Fixed POST delay at POST code 5A when certain CD-ROM drives are attached to the system.
- Fixed issue where a device behind multiple bridges (2+) will get an invalid IRQ assignment.
- Fixed issue where system would hang with certain third-party IDE controllers installed in the system.
- Changed the code to not reset video mode for every OPROM.
- Fixed SMBIOS Type 16 Memory Error Correction reporting.
- Added code to prevent programming of the remap registers on Lakeport RVP.
- Added support for IDCC Version 2.1.00.
- Fixed the issue where IDCC will not launch if FSB margins set higher than 10%
- Added a new feature for System Wake from S5.
- Protect the AC Power Lost status bit during the early init to avoid messing up the boot path.
- Fixed Sankyo ATM card reader causing POST delay when USB Legacy "Enabled".

## Known Errata:

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup will display incorrect information.

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good Tibet 951659.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

## Build 1297 (Release Candidate)

#### About This BIOS:

- Aug 24, 2006
- NH72310J.86B.1297.2006.0823.1733
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:
  - M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB, M34F6404.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- $\bullet$  Fixed for Remote Management card appears to hang system with  $\mathtt{NH}1104$
- Updated new BIOS Splash Screen
- Removed Processor Badging on Splash Screen

#### Known Errata:

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup will display incorrect information.

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good .
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

## Build 1179 (Release Candidate)

#### About This BIOS:

- May 09, 2006
- NH72310J.86B.1179.2006.0508.2328
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:
  - M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB, M34F6404.
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

## New Fixes/Features:

- Fixed to block system recovery to other BIOS.
- Fixed a problem where the microcode updates did not work if the flash update was using no reboot method.
- Fixed BIOS Version update failure during Iflash update.

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup may display incorrect information.

- CMOS settings must be cleared and saved after updating the BIOS with this verison.
- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display. Console redirection requires baud rate of 57600 only.
- LSI 320-1 Adapter, USB mouse not available with the WebBios setup. With firmware 1L37 and Bios G119, the PS2 mouse functions normal.
- USB mouse is not usable with LSI based RAID Option ROM setup. A PS2 mouse requires an IDE CDROM device attache to function normally with the Option ROM setup.
- May experience problems when an ATI based Add in Video card is used.
- Updated Microcode. If microcode is not loaded after changing processors you must reflash the BIOS with the new processor. Use "Iflash /rb /pf NH1179P.bio" at the dos prompt.

## Build 1178 (Release Candidate)

### About This BIOS:

- May 05, 2006
- NH72310J.86B.1178.2006.0505.0909
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB, M34F6404.
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Added microcode M34F6406.
- Fixed hard disk boot order not available in BIOS Setup.
- Fixed dual core cache size is not fully detected.
- Fixed floppy non-functional when Emulex LP10000 installed.
- Fixed USB mouse doesn't work in SRCS16 Config.
- Fixed SRCS16 keyboard doesn't work without mouse in OpROM.
- Fixed Adapter 39320 hangs in legacy slots.
- Fixed system fans run at high speed only with Presler Processor installed.
- Fixed SW single processor mode description wrong in BIOS.
- Added MPS Table support for SCO OSR 5.0.7 with SMP for LC sku.
- Fixed CPU microcode did not get updated for dual core CPU.
- Fixed CPU Speed display in setup main page shows incorrect value.

## Known Errata:

For boards with BIOS build between 0674 and 1178, you must first flash to BIOS build 0674 and then flash to 1178 or newer BIOS otherwise the setup will display incorrect information.

• Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.

- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good Tibet 951659.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

## Build 1104 (Release Candidate)

## About This BIOS:

- March 22, 2006
- NH72310J.86B.1104.2006.0322.1002
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

Added microcode support for additional Intel® Pentium® D
processors up to 3.4Ghz.
 Note: Additional processor qualification is in progress
and has not completed at the time of this BIOS release.

#### Known Errata:

- CMOS settings must be cleared and saved after updating the BIOS with this verison.
- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display. Console redirection requires baud rate of 57600 only.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good.
- USB mouse will not work in LSI based Raid option rom setup without PS2 mouse when CDROM is attached.
- Intel® RAID Controller SRCS16 requires both PS2 mouse and keyboard to be able to configure the option ROM setup.
- Intel® RAID Controller SRCU42L is not compatable with BIOS NH1104D.
- May experience problems when an ATI based Add in Video card is used.
- Updated Microcode. If microcode is not loaded after changing processors you must reflash the BIOS with the new processor. Use "Iflash /rb /pf NH1104P.bio" at the dos prompt.

### Build 1103 (Release Candidate)

- March 21, 2006
- NH72310J.86B.1103.2006.0321.1535
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I

- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:
  - M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB,M07F6005.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Fixed ICH7 SATA RAID 0 array going offline before OS load.
- Fixed entering Option Rom setup for SRCSAS18E.

#### Known Errata:

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good Tibet 951659.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.
- May experience problems when an ATI based Add in Video card is used.

# Build 1063 (Release Candidate)

### About This BIOS:

- March 8, 2006
- NH72310J.86B.1063.2006.0308.1033
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A04.PDB,M04F620F.PDB,M9DF4703.PDB,M07F6005.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

# New Fixes/Features:

- Fixed System hangs with TCC Post Card.
- Fixed Adaptec 39320A appears to Hang in Option Rom both Slot 5 and 6 (LX).
- Fixed LSI 22320R Appears to have problem in Slot 5 only with Slot okay.
- Fixed Emulex LP10000 Channel 0 Not ready issue.
- Qlogic 2360 will boot with updated Qlogic Option Rom .
- Updated Microcode. If microcode is not loaded after changing processors you must reflash the BIOS with the new processor. Use "Iflash /rb /pf NH1063C.bio" at the dos prompt.

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good Tibet 951659.
- USB mouse will not work in LSI based Raid option rom setup without Ps2 mouse when CDROM is attached.

May experience problems when an ATI based Add in Video card is used.

## Build 1026 (Release Candidate)

### About This BIOS:

- February 14, 2006
- NH72310J.86B.1026.2006.0214.1033
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches:
  - M1DF3417.PDB,M9DF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A03.PDB,M04F620D.PDB,M9DF4703.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Fixed INTEL® RAID CONTROLLER SRCS16 Option Rom setup Keyboard doesn't work without mouse.
- Fixed INTEL® RAID CONTROLLER SRCS16 Option rom setup Usb mouse doesn't work.
- Fixed Hard drives not available when Intel® RAID Controller SRCU42E is in slot 4.
- Fixed PS2 mouse in LSI320-1 Option rom Setup.
- Fixed Console redirection hangs exiting setup on LC.
- Fixed System hangs with TCC Post Card.

## Known Errata:

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- Adaptec 39320A appears to Hang in Option Rom both Slot 5 and 6 (LX).
- LSI 22320R Appears to have problem in Slot 5 only with Slot okay.
- LSI 320-1 No Usb mouse in WebBios setup. Firmware 1L37 Bios G119, PS2 mouse good Tibet 951659.

## Build 0962 (Release Candidate)

# About This BIOS:

- January 13, 2006
- NH72310J.86B.0962.2006.0113.1117
- SATA RAID info:
  - LSI RAID for SATA v5.4.11101321I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB,M9DF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M 5CF4A03.PDB,M04F620D.PDB,M9DF4703.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Changed Console redirection to the Onboard serial port baud rate to 57600.
- Added SMBIOS Type15 structures.
- Added additional Help Text to Setup screens.
- Added separate Network Boot options for PCIe Lan and PCI Lan Controllers.
- Fixed entry into SRCU41L and ARCS16 Option ROM.
- Added Timeout waiting for keyboard input after BIOS messages, i.e. Chassis Intrusion.
- Added automatic Disable of On board ATI Video Controller when Addin Video device installed.
- Added support for additional processors.
- Removed Manual Aggressive Setup Option.
- Changed Non-Fatal PCIe errors to not cause SERR.
- Removed Setup Option "Manual Control" for memory.
- Removed Setup Boot Option "Advanced".
- Changed ICH7 RAID Option Rom version.
- Fixed 39320A SCSI Card Device for Channel A operation.

#### Known Errata:

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- Intel® RAID Controller SRCS16 Option Rom setup requires matched mouse and Keyboard (Both PS2 or Both USB).

## Build 0734 (Release Candidate)

#### About This BIOS:

- November 23, 2005
- NH72310J.86B.0734.2005.1123.1649
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

### New Fixes/Features:

- Added Console redirection via COM 1 serial port for the LC version only.
- Added processor entries to the MP table
- Corrected APM function GetPowerStatus
- Added USB Ports Enable/Disable
- Fixed Serial Port Disable not disabling the serial port
- Fixed BIOS Boot Order display of some SCSI cards
- Moved location of F2 to enter setup display
- Added timeout for message displays waiting for user input

- Console Redirection of the VGA display not routed to Serial port, You will not see Add-in cards video display.
- XP installation fails without Service Packs

## Build 0674 (Production Version)

### About This BIOS:

- October 10, 2005
- NH72310J.86B.0674.2005.1011.1851
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

 Fixed WOL from S4 and Intel® 82541PI voltage backfeed to ICH while in S4.

### Build 0663 (Production Version)

#### About This BIOS:

- October 07, 2005
- NH72310J.86B.0663.2005.1007.1516
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

## New Fixes/Features:

- Enabled PERR and Serr on PCIx to cause NMI resulting in Blue Sceen
- Fixed Issue where 39320A Setup wouldn't allow configuration or Channel A.
- Fixed PME detection on PCIx Bus .
- Added Hardware Monitoring setup page to LC Sku .
- Fixed Red Hat EL 4.0 Install and Boot problems on LC SKU.

#### Known Errata:

• XP installation fails without Service Packs .

### Build 0626 (Release Candidate)

- September 28, 2005
- NH72310J.86B.0626.2005.0928.1934
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

• Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

### New Fixes/Features:

- Fixed Intel® 82541PI back driving VCC and VCC3 while in S5 with wake on Lan enabled .
- Set network boot disabled as default .
- Increased Splash Screen/Logo delay time to 5 seconds .

#### Known Errata:

• XP installation fails without Service Packs .

### Build 0615 (Release Candidate)

### About This BIOS:

- September 20, 2005
- NH72310J.86B.0615.2005.0920.2142
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB
- AMT Firmware version 1.1.36.
- Intel(R) Active Management Technology BIOS Extension v1.2.3.0000

#### New Fixes/Features:

- Enabled iAMT bios extensions .
- Fixed 33MHz PCI cards in PCI-X slot hanging system.

#### Known Errata:

• XP installation fails without Service Packs .

## Build 0595 (Release Candidate)

# About This BIOS:

- September 15, 2005
- NH72310J.86B.0595.2005.0915.2157
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI) Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

#### New Fixes/Features:

- Fixed issue where add-in cards would not work in PCI Slot 2 in Manufacturing Mode .
- $\bullet$  Corrected SMBIOS System Slots Information (Type 9) and On Board Devices Information (Type 10) .
- Changed minimum fan tach settings for the Heceta in SIO .

# Known Errata:

• XP installation fails without Service Packs .

 33MHz PCI cards may not work in PCI-X slot and the system may hang.

## Build 0570 (Beta)

### About This BIOS:

- September 13, 2005
- NH72310J.86B.0570.2005.0913.1756
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

- Corrected SMBIOS System Slots Information (Type 9) and On Board Devices Information (Type 10) .
- Changed minimum tach settings for Heceta's on LC and LX .
- $\bullet$  Fixed Intel® SCRU42X (Chilito-2) and SCSI ICPVotex cards entering option rom setup .
- Fixed Windows 2003 Adaptec 39160 in PCI-X riser Card .
- Fixed Windows 2003 finding hard drives in LX Slots 5 and 6 .
- Fixed Display of Adaptec cards in Slots 5 and 6 .
- Fixed Display of Adaptec ASR-2110S (Phantom) card in Boot menu Normal mode .

#### Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- XP installation fails without Service Packs .
- 33MHz PCI cards may not work in PCI-X slot and the system may hang.

# Build 0525 (Beta)

# About This BIOS:

- September 2, 2005
- NH72310J.86B.0525.2005.0902.1536
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

## New Fixes/Features:

- Enabled PCI-X/PXH on Intel® Entry Server Board SE7230NH1-E LX platforms.
- ullet Fixed issue where the BIOS did not match Silk Screen for memory on FAB B board .
- $\bullet$  Fixed no video on first boot at Functional Test after In Circuit Testing .
- Changed manufacturing default for PCIe Compliance to Enable.

## Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- XP installation fails without Service Packs .
- 33MHz PCI cards may not work in PCI-X slot and the system may hang.

## Build 0497C (Release Candidate)

### About This BIOS:

- August 24, 2005
- NH72310J.86B.0497.2005.0824.1452
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

- Fixed low throughput on PCI bus. .
- Fixed issue where Windows installation or boot hung with Intel® SCRU42X (Chilito-2) RAID card. .
- Removed Hardware Monitoring page from the BIOS Setup .
- Fixed WHQL ACPI Verifier failure on HCT 12.1.01 Windows 2003 SP1 32bit .
- Changed Product Guide message when no boot devices found in the system from "Desktop" to "Server".
- Allowed Ctrl+Alt+Del when no boot devices detected in the system .
- Enabled Pulse Width Stretching for 3-wire fan headers.

#### Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- XP installation fails without Service Packs .

## Build 0489C (Release Candidate)

## About This BIOS:

- August 18, 2005
- NH72310J.86B.0489.2005.0818.1716
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82541PI)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

## New Fixes/Features:

- Fixed PXE boot via Intel® 82541PI LAN .
- Added support for PERR/SERR events detection and logging .
- Fixed reading of dowling fan tachs at manufacturing .

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B .
- XP installation fails without Service Packs .

## Build 0467C (Release Candidate)

### About This BIOS:

- August 15, 2005
- NH72310J.86B.0467.2005.0815.1849
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

Fixed problem with QuickPost post card hang at checkpoint 58.

### Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B .
- XP installation fails without Service Packs .
- Perr Serr event detection and logging

## Build 0462C (Release Candidate)

## About This BIOS:

- August 12, 2005
- NH72310J.86B.0462.2005.0812.1558
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

## New Fixes/Features:

- Changed Subsystem Vendor Id of onboard ATI RN50 video controller to 0x8086.
- Added support for RMC POST complete signal .

#### Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B .
- XP installation fails without Service Packs .

# Build 0454C (Release Candidate)

#### About This BIOS:

- August 11, 2005
- NH72310J.86B.0454.2005.0811.1712
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.2.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

- Fixed issue where the device could not install correct driver .
- Added BBS Popup Menu (Boot Menu), invoked with <ESC> hotkey during POST.
- Removed references to "Desktop" from the BIOS Setup .
- Added support for PERR/SERR events detection and logging.
- Fixed issue where Fibre Channel cards Qlogic 2362 and Emulex 10000ex did not show up in Setup boot order .
- Fixed issue where sometimes ECC errors were not detected and logged.
- Updated Memory Reference Code to version 1.2 .
- Changed manufacturing default of the "Primary Video Adaptor" setup option to External PCI Graphics .
- Changed spread mode of the clock to down spread .
- $\bullet$  Added workaround to fix boot hangs with locked CPU at 1066MHz FSB .
- · Fixed issue where unused PCI slot clocks were not turned off .
- Turned off unused PCIE ports (Ports 2, 3 and 4) in the South Bridge.
- Changed defaults of "USB Boot" setup option to Enable.
- Moved "ZIP Emulation Type" setup option to Boot menu and changed its defaults to Floppy.
- Changed defaults of "Wake on LAN from S5" option to Stay Off.
- Fixed EIST setup option based on processor capability.
- Changed defaults of "Chassis Intrusion" setup option to Enable.
- Fixed SATA Configuration setup option based on ICH features capability.

### Known Errata:

- $\bullet$  Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts .
- Cert-WHQL Invalid vendor ID for ATI ES1000 .
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B .
- XP installation fails without Service Packs .
- RMC POST complete signal failure .

# Build 0444B (Beta)

- August 5, 2005
- NH72310J.86B.0444.2005.0805.1021
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)

- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.0.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

- Added 2<sup>nd</sup> onboard LAN enable/disable option in Setup .
- Fixed issue where unused PCI slot clocks were not turned off .
- Fixed Windows XP installation hang problem at PCI.SYS .
- Added fan control support .
- Removed "ACPI Suspend State" option from the BIOS Setup.

### Known Errata:

- PCI Slot 2 is off unless there is a card in PCI Slot 1.
- Intel® 82541PI Lan is disabled on shutdown restart.

### Build 0400B (Beta)

### About This BIOS:

- July 28, 2005
- NH72310J.86B.0400.2005.0728.1802
- SATA RAID info:
  - LSI RAID for SATA v5.4.05262138I
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.0.
- CPU Patches: M1DF3417.PDB, MBDF4117.PDB, M9DF4305.PDB, M9DF4406.PDB

## New Fixes/Features:

- LSI 22320, LSI Megaraid SATA 150-6 fixes for multiple CV/DV configurations.
- New GPIO Programming for Intel® 82541PI LAN enable disable.
- Linux install of RHLE with 4 SATA Drives .
- Fixed enter of Intel® SRCU42L-Chilito OPROM Setup .
- Fixed SMBIOS tables in BIOS .
- Fixed Event logs display of wrong date/year .
- ECC is set as default .
- BIOS Suspend state defaults to S1 .
- ASF removed from BIOS Setup .
- Front panel lights blink in standby .

### Known Errata:

• Intel® 82541PI Lan is disabled on shutdown restart.

# Build 0287 (Beta)

- July 8, 2005
- NH72310J.86B.0287.2005.0708.1725
- SATA RAID info:
  - LSI RAID for SATA v5.4.052621381
- Initializing Intel(R) Boot Agent FE v4.1.17 (Ekron)
- Initializing Intel(R) Boot Agent GE v1.2.28 (Intel® 82573E/V)
- Memory reference code equivalent to MRC 1.0.

• CPU Patches: M1DF3417.PDB, MBDF4117.PDB,M9DF4305.PDB, M9DF4406.PDB

### New Fixes/Features:

- Mukilteo (7230) Chipset support
- System bus support 1066/800/533
- Memory support DDR2 667/533 up to 8 GB
- Added new Server logo 800X600 BMP
- Fixed issues with LSI Mega Raid card
  - o Properly detected during boot
  - o Yellow bangs in device manager
- Fixed issue where system would hang when shutting down from windows.
- New GPIO Programming for Intel® 82541PI LAN enable disable.

## Known Errata:

• Intel® 82541PI Lan is disabled on shutdown restart.