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**DATE:** Aug 30, 2006  
**PRODUCT:** Nob Hill Server Custom BIOS

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**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:**

- Fixed for Remote Management card appears to hang system with NH1104
- 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.
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- CPU Patches:  
M1DF3417.PDB,MBDF4117.PDB,M9DF4305.PDB,M9DF4406.PDB,MBDF4903.PDB,M5CF4A04.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.

**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 may display incorrect information.

- CMOS settings must be cleared and saved after updating the BIOS with this version.
- 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 attached 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.

<b>Build 1178 (Release Candidate)</b>
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**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,M5CF4A04.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.
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- 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.

<b>Build 1104 (Release Candidate)</b>
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**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,M5CF4A04.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 version.
  - 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 (Tibet 951659).
  - 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 compatible with BIOS NH1104D.
  - May experience problems when an ATI based Add in Video card is used.
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- 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)**

#### **About This BIOS:**

- 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,M5CF4A04.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 (Tibet 960479).
- Fixed entering Option Rom setup for SRCSAS18E (Tibet 960648).

#### **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,M5CF4A04.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.
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- Fixed Emulex LP10000 Channel 0 Not ready issue (Tibet 959000).
- Qlogic 2360 will boot with updated Qlogic Option Rom (Tibet 949927).
- Updated Microcode (Tibet 958833). 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.

**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.

<b>Build 1026 (Release Candidate)</b>
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**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,M5CF4A03.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 (Tibet 951447).
- Fixed INTEL® RAID CONTROLLER SRCS16 Option rom setup Usb mouse doesn't work (Tibet 951448).
- Fixed Hard drives not available when Intel® RAID Controller SRCU42E is in slot 4 (Tibet 957438).
- Fixed PS2 mouse in LSI320-1 Option rom Setup (Tibet 951659).
- Fixed Console redirection hangs exiting setup on LC (Tibet 955659).
- 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.
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## 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, M5CF4A03.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 (Tibet 943272).
- Added additional Help Text to Setup screens (Tibet 944387).
- Added separate Network Boot options for PCIe Lan and PCI Lan Controllers (Tibet 944389).
- Fixed entry into SRCU41L and ARCS16 Option ROM (Tibet 945330, 951442).
- Added Timeout waiting for keyboard input after BIOS messages, i.e. Chassis Intrusion (Tibet 945778).
- Added automatic Disable of On board ATI Video Controller when Add-in Video device installed (Tibet 946126).
- Added support for additional processors (Tibet 950268).
- Removed Manual Aggressive Setup Option (Tibet 950688).
- Changed Non-Fatal PCIe errors to not cause SERR (Tibet 952830).
- 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

**Known Errata:**

- 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

<b>Build 0674 (Production Version)</b>
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**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.

<b>Build 0663 (Production Version)</b>
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**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 Screen (Tibet 938470).
  - Fixed Issue where 39320A Setup wouldn't allow configuration or Channel A (Tibet 945271).
  - Fixed PME detection on PCIx Bus (Tibet 942001).
  - Added Hardware Monitoring setup page to LC Sku (Tibet 946678).
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- Fixed Red Hat EL 4.0 Install and Boot problems on LC SKU (Tibet 947711, 947722).

**Known Errata:**

- XP installation fails without Service Packs (Tibet 944010).

**Build 0626 (Release Candidate)**

**About This BIOS:**

- 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 (Tibet 947156).
- Set network boot disabled as default (Tibet 946694).
- Increased Splash Screen/Logo delay time to 5 seconds (Tibet 946655).

**Known Errata:**

- XP installation fails without Service Packs (Tibet 944010).

**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 (Tibet 947230).
- Fixed 33MHz PCI cards in PCI-X slot hanging system.

**Known Errata:**

- XP installation fails without Service Packs (Tibet 944010).

**Build 0595 (Release Candidate)**

**About This BIOS:**

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- 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 (Tibet 946424).
- Corrected SMBIOS System Slots Information (Type 9) and On Board Devices Information (Type 10) (Tibet 945834).
- Changed minimum fan tach settings for the Heceta in SIO (Tibet 946657).

**Known Errata:**

- XP installation fails without Service Packs (Tibet 944010).
- 33MHz PCI cards may not work in PCI-X slot and the system may hang.

<b>Build 0570 (Beta)</b>
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**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) (Tibet 945834).
- Changed minimum tach settings for Heceta's on LC and LX (Tibet 945850).
- Fixed Intel® SCRU42X (Chilito-2) and SCSI ICPVotex cards entering option rom setup (Tibet 946111 and 946135)
- Fixed Windows 2003 Adaptec 39160 in PCI-X riser Card (Tibet 938814).
- Fixed Windows 2003 finding hard drives in LX Slots 5 and 6 (Tibet 944009).
- Fixed Display of Adaptec cards in Slots 5 and 6 (Tibet 945271).
- Fixed Display of Adaptec ASR-2110S (Phantom) card in Boot menu Normal mode (Tibet 946134).

**Known Errata:**

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
  - XP installation fails without Service Packs (Tibet 944010).
  - 33MHz PCI cards may not work in PCI-X slot and the system may hang.
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## 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.
- Fixed issue where the BIOS did not match Silk Screen for memory on FAB B board (Tibet 941994).
- Fixed no video on first boot at Functional Test after In Circuit Testing (Tibet 946141).
- Changed manufacturing default for PCIe Compliance to Enable.

### Known Errata:

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
- XP installation fails without Service Packs (Tibet 944010).
- 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. (Tibet 944096).
  - Fixed issue where Windows installation or boot hung with Intel® SCRU42X (Chilito-2) RAID card. (Tibet 944008).
  - Removed Hardware Monitoring page from the BIOS Setup (Tibet 945441).
  - Fixed WHQL ACPI Verifier failure on HCT 12.1.01 Windows 2003 SP1 32bit (Tibet 944497).
  - Changed Product Guide message when no boot devices found in the system from "Desktop" to "Server" (Tibet 944402).
  - Allowed Ctrl+Alt+Del when no boot devices detected in the system (Tibet 944402).
  - Enabled Pulse Width Stretching for 3-wire fan headers.
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**Known Errata:**

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
- XP installation fails without Service Packs (Tibet 944010).

**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 (Tibet 945190).
- Added support for PERR/SERR events detection and logging (Tibet 942037).
- Fixed reading of dowling fan tachs at manufacturing (Tibet 944104).

**Known Errata:**

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B (Tibet 944008).
- XP installation fails without Service Packs (Tibet 944010).

**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:**

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
  - Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B (Tibet 944008).
  - XP installation fails without Service Packs (Tibet 944010).
  - Perr Serr event detection and logging
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## 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 (Tibet 943983).
- Added support for RMC POST complete signal (Tibet 940161).

### Known Errata:

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B (Tibet 944008).
- XP installation fails without Service Packs (Tibet 944010).

## 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 (Tibet 943976).
  - Added BBS Popup Menu (Boot Menu), invoked with <ESC> hotkey during POST (Tibet 943741).
  - Removed references to "Desktop" from the BIOS Setup (Tibet 943740).
  - Added support for PERR/SERR events detection and logging (Tibet 942037).
  - Fixed issue where Fibre Channel cards Qlogic 2362 and Emulex 10000ex did not show up in Setup boot order (Tibet 942553).
  - Fixed issue where sometimes ECC errors were not detected and logged (Tibet 941993).
  - Updated Memory Reference Code to version 1.2 (Tibet 943674).
  - Changed manufacturing default of the "Primary Video Adaptor" setup option to External PCI Graphics (Tibet 940719).
  - Changed spread mode of the clock to down spread (Tibet 944455).
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- Added workaround to fix boot hangs with locked CPU at 1066MHz FSB (Tibet 944106).
- Fixed issue where unused PCI slot clocks were not turned off (Tibet 938808).
- 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:**

- Can't pass MVL 4-corner when testing 4GB & 8GB of total memory with 2GB parts (Tibet 942555).
- Cert-WHQL Invalid vendor ID for ATI ES1000 (Tibet 943983).
- Unable to install Win2003 with Intel® SRCU24X (Chilito-2) on Intel® Entry Server Board SE7230NH1-E Fab-B (Tibet 944008).
- XP installation fails without Service Packs (Tibet 944010).
- RMC POST complete signal failure (Tibet 940161).

<b>Build 0444B (Beta)</b>
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**About This BIOS:**

- 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 (Tibet 936819).
- Fixed issue where unused PCI slot clocks were not turned off (Tibet 938808).
- Fixed Windows XP installation hang problem at PCI.SYS (Tibet 944010).
- Added fan control support (Tibet 943246).
- 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.

<b>Build 0400B (Beta)</b>
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**About This BIOS:**

- July 28, 2005
  - NH72310J.86B.0400.2005.0728.1802
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- 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 (Tibet 942505, 942507).
- New GPIO Programming for Intel® 82541PI LAN enable disable.
- Linux install of RHLE with 4 SATA Drives (Tibet 942510).
- Fixed enter of Intel® SRCU42L-Chilito OPRom Setup (Tibet 942554).
- Fixed SMBIOS tables in BIOS (Tibet 942588).
- Fixed Event logs display of wrong date/year (Tibet 939495).
- ECC is set as default (Tibet 941995).
- BIOS Suspend state defaults to S1 (Tibet 943226).
- ASF removed from BIOS Setup (Tibet 943219).
- Front panel lights blink in standby (Tibet 936104).

**Known Errata:**

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

<b>Build 0287 (Beta)</b>
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**About This BIOS:**

- July 8, 2005
- NH72310J.86B.0287.2005.0708.1725
- 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:**

- 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.
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