Revision: **86B.0188.P08**
PR8.0 BIOS release

ID: S870BH2A.86B.0188.P08.0503251553

<u>Components/Contents</u>

BIOS	86B.0188.P08*
PAL	5.72 (Itanium® 2 Processor with up to 6M L3 cache) *
SAL-A/SAL-B	3.0/3.0 (SAL3.20 spec update changes)
FPSWA	1.18
EFI	1.10.14.62
SCSI BIOS (LSI1030)	1.03.00.00 + F/W 1.03.10 (IME)
ATI BIOS	114F
EFI GIGUNDI	2.16

(* indicates new for this release)

<u>System configuration supported</u>

Gold system with Itanium® 2 Processors with up to 6MB of L3 cache

<u>Special Instructions</u>

USE LATEST VERSION OF IFLASH64.EFI

To eliminate the chance of flashing incompatible BIOS binary, please use IFLASH64.efi
Version 1.03 or greater. Starting with Version 1.03, Iflash64.efi is capable of verifying
that the selected BIOS binary is compatible with the system's Processors type, by
matching the Processor's CPUID. If incapability is detected, then an error message is
displayed. Refer IFLASH64.EFI Ver1.03 Release notes for details.

USING THE BIOS CD IMAGE TO CREATE BIOS RECOVERY-CD
As the systems have only the IDE-CD as the recovery media device, this BIOS release
includes a bootable (El-Torito) CD-image file. This CD image can be burned into blank
CD-R or CD-RW media to create the BIOS recovery-CD. To recover BIOS from the CD,
put the BIOS recovery-CD into the IDE-CD drive and set the recovery jumper and reset
the system, the BIOS recovery will start.

OTHER INSTRUCTIONS:

1. CLEAR CMOS! after updating to this BIOS.

2. Preferably clear the Processor history, by going to the Setup and issuing a Re-arm.
3. This Bios will detect mismatched DIMMs and incorrect SPD data on DIMMs. Check and replace DIMMs with incorrect SPD data. A faulty DIMM in any row, will cause subject row to be mapped out. In case of systems with only single Row populated, a bad DIMM will prevent it from booting, since no Memory is detected because of the faulty Row.
4. This Bios allows BMC to program the Core-Ratio for the Processor speed.
5. See NOTE below for flash upgrade and jumper definitions
6. In case Recovery is required on the system, it will be done from the IDE-DVD/CD-ROM drive.

Known Issues/Workarounds
None.

Change History (from PR7.1)
o SAL_GET_STATE_INFO ever returns an error when INIT interrupt is called
o SMBIOS implementation reports memory size 0 for all modules
o SAL PAL shadow base alignment to 1MB boundary in SAL to fix Windows RTM page boundary issue

Change History (from PR6.2)
o Processor Retest fails if you enable clear SEL and Proc Retest at same time in BIOS.
o SAL misfunctioning towards INIT interrupt management
o SAL - 3.2 SPEC change
o SAL init handler checksum fix
o SAL cache flush procedure modified to handle bigger cache size
o Some USB keyfobs do not work in EFI
o SMBIOS table CPU max Speed incorrect
o Error running some EFI shell scripts: "Cannot read from file - Device Error"

Change History (from PR6.1)
o Changed the LID register programming to support DP versions of Itanium® 2 processors with 9M core

Change History (from PR6.0)
o 5 minute delay in EFI while performing DHCP
o Error message in EFI when BMC set to DHCP

Standard Feature list/Notes

o Standards specifications
  • ACPI 2.0
  • PCI 2.2
  • DIG64

- PMM 1.01
- PCI 2.2
- SMBIOS 2.3.1
- WFM 2.0 (PXE support)
- PnP 1.0A
- EDD 3.0
  - Standard SAL/PAL/Legacy BIOS support
  - EFI 1.1 (build 1461) support
    - USB 1.1 Keyboard, Mouse and Mass storage (only ATAPI) devices
    - UNDI, UGA driver support
    - Boot Manager & Maintenance
    - EFI Shell
  - MCA & Error handling
  - 128MB, 256MB, 512MB, 1GB and 2GB DDR DIMMs
  - Memory (faulty DIMMs) map-out and error reporting/logging
  - BIOS update (iFlash64) and Recovery
  - Server Management (BMC) FRBs, FRU, Event logging and etc
  - Console redirection
  - BIOS setup & localization
  - User binary
  - OEM Logo