

Illumina DRAGEN Server v4 BIOS Release Notes

Overview

This BIOS (basic input/output system) update for the Illumina DRAGEN Server v4 provides improved noise levels to the system through more efficient fan speed management. The server will now run more quietly when idle and take longer before all fans are running. Fans will continue to operate at full speed (and noise level) during heavy use. This BIOS version is compatible with both CentOS 7 and Oracle 8 operating systems and all DRAGEN versions. Please see sections below for additional details and instructions for how to update your system with the new BIOS.

Details

- Add Xilinx U200 temperature as system smart FAN thermal source.
- Separate system smart fan control for FAN_ZONE1 and FAN_ZONE2.
- Apply new smart fan curve.

CPU					
Temperature (C)	70C	80C	90C	96C	99C
FAN Speed (%)	30%	50%	70%	80%	100%
FPGA					
Temperature (C)	0C	40C	50C	60C	80C
FAN Speed (%)	20%	20%	40%	60%	100%

- Support aeuefi.efi tool for EC FW update.
 - "PRJ_NAME[8]" from 4009h change to 4007h.
 - "CHIPVENDOR" from 4007h change to 400Fh.
 - "CHIPID" from 4008h change to 4010h.

BIOS Update Instructions

1. Download BIOS Installer Package – [Link](#)
2. Unzip file and copy folder named 6200J300 to USB
3. Plug USB into server
4. Reboot system
5. Hold DEL to enter BIOS
6. Go to Boot settings
7. Select UEFI: Built-in EFI Shell for Boot Option #1:
8. F4 to Save and Exit.
9. Allow system to boot into UEFI Shelf.
10. Navigate to USB drive and 6200J300 folder using the following commands:
 - > fs0:
 - > cd 6200J300

```

PciRoot(0x0)/Pci(0x14,0x0)/USB(0x9,0x0)
Press ESC in 1 seconds to skip startup.nsh or any other key to continue.
Shell> fs0:
FS0:\> ls
Directory of: FS0:\
12/14/2022 18:02 <DIR>          4,096 6200J300
0 File(s)                0 bytes
1 Dir(s)
FS0:\> cd 6200J300
FS0:\6200J300> ls
Directory of: FS0:\6200J300\
01/30/2023 09:38 <DIR>          4,096 .
01/30/2023 09:38 <DIR>          0 ..
12/15/2022 09:21          33,554,432 6200J300.BIN
07/05/2022 18:01          14,790,656 S975BMC03.04.00.0003_FW-Update.bin
06/29/2021 11:13           524,400 AfuEfiX64.efi
01/05/2023 17:20           474,501 How to update BMC FW for SKY-6200.docx
01/04/2023 16:08          1,239,464 How to load Illumina OS - SKY-6200_010420
23.docx
01/06/2023 12:02          4,579,534 EC_Update.docx
01/30/2023 09:08          2,097,152 SKY-6X00_I03_03.BIN
01/30/2023 09:07           129,088 aeuefi.efi
8 File(s)          57,389,227 bytes
2 Dir(s)
FS0:\6200J300> _
    
```

11. Execute:

> AfuEfiX64.efi 6200J300.bin /p /b /n /x

```

01/30/2023 09:08          2,097,152 SKY-6X00_I03_03.BIN
01/30/2023 09:07           129,088 aeuefi.efi
8 File(s)          57,389,227 bytes
2 Dir(s)
FS0:\6200J300> AfuEfiX64.efi 6200J300.BIN /p /b /n /x
-----
|          AMI Firmware Update Utility v5.10.01.1670          |
|          Copyright (C)2018 American Megatrends Inc. All Rights Reserved.          |
-----
Reading flash ..... done
- ME Data Size checking . ok
- FFS checksums ..... ok
- Check RomLayout ..... Ok.
Erasing Boot Block ..... done
Updating Boot Block ..... done
Verifying Boot Block ..... done
Erasing Main Block ..... done
Updating Main Block ..... done
Verifying Main Block ..... done
Erasing NVRAM Block ..... done
Updating NVRAM Block ..... done
Verifying NVRAM Block ..... done

Process completed.
FS0:\6200J300> _
    
```

12. Execute:

> aeuefi.efi -u SKY-6X00_I03_03.BIN

```

01/30/2023 09:08          2,097,152 SKY-6X00_I03_03.BIN
01/30/2023 09:07           129,088 aeuefi.efi
8 File(s)          57,389,227 bytes
2 Dir(s)
FS0:\6200J300>
FS0:\6200J300> aeuefi.efi -u SKY-6X00_I03_03.BIN
After the EC update process, must to shutdown PC.
Do you want to continue(y/n)? y

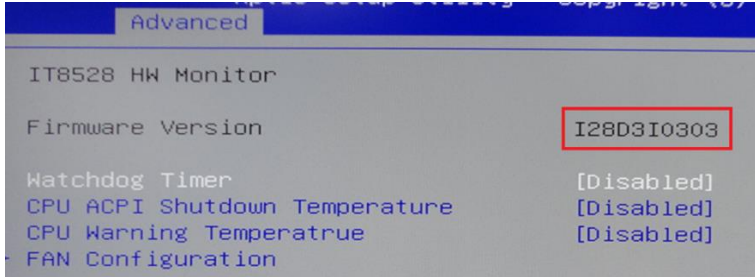
NOTE: Please do not shutdown PC during update process.
Update EC firmware...
Application:
- Erase ...          84.5%
    
```

13. Once complete, the system will shut down.

- a. Remove power cord from power supply.
- b. Wait 2 minutes.
- c. Reconnect power cord to power supply.

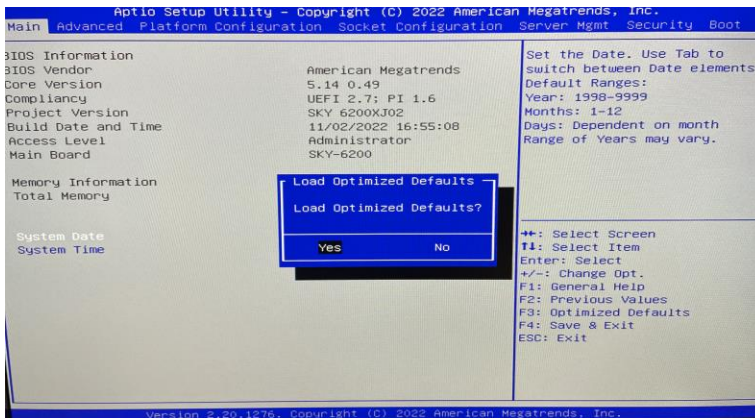
- d. Power on system (this may take a few minutes).
- e. Hold DEL to enter BIOS.

14. Navigate to 'Advanced' -> 'IT8528 HW Monitor' and confirm firmware version is **I28D3I0303**



15. Navigate to 'Boot' and set 'Boot Option #1' to Micron 7300.

16. Press F3 to Load Optimized Defaults. Select Yes. Press F4 to Save and Exit.



Release History

Revision	Release Reference	Originator	Description of Change
00	CN 1104872	Melissa del Rosario	Initial release