

# BIOS Release Notes

## TITLE

**SUBJECT:** MD60-SC0 BIOS Release Notes version [R10](#)  
**System:** [NA](#)

### About This Release

**Build Date:** [2019/12/3](#)  
**BIOS Checksum:** [0x58BE9A6F](#) (8M), [0xCED241E8](#) (16M)  
**Release Owner:** Jonas.Hsu

### BIOS Components/Contents

**Processor stepping(s) supported:** supports Intel® Haswell-EP/Broadwell-EP processors  
**System hardware configurations supported:** MD60-SC0  
**Microcode updates versions:**

CPUID	Family	Microcode Update ID
<a href="#">406F0</a>	<a href="#">Broadwell-EP Processor A-0, A-1, L-0</a>	<a href="#">00000014</a>
<a href="#">406F1</a>	<a href="#">Broadwell-EP Processor B-0, M-0, R-0</a>	<a href="#">0B000038</a>
<a href="#">306F0</a>	<a href="#">Haswell-EP Processor A-0</a>	<a href="#">FFFF0017</a>
<a href="#">306F1</a>	<a href="#">Haswell-EP Processor B-0</a>	<a href="#">00000014</a>
<a href="#">306F2</a>	<a href="#">Haswell-EP Processor C-0, C-1, M-0, M-1, R-2</a>	<a href="#">00000043</a>

**IPMI support:**

**AMI Kernel version:** [Gbt\\_Kernel\\_023\\_170](#)

**Intel CSI/MRC Package version:** [3.10](#)

**SPI Descriptor version:** [03.01.03.072.0\\_18](#)

**OPROM version :**

OPROM	Version
INTEL RAID PACKAGE	RSTe 4.5.0.1333
AST2400 VGA	1.09.00
INTEL 1G PXE	1.5.53
INTEL 10G PXE	2.3.24
INTEL 1G LAN EFI	6.2.08
INTEL 10G LAN EFI	4.4.11

### Installation Notes

#### IMPORTANT NOTES:

1. Please extract the MD60-SC0\_ [R10](#).zip to a bootable diskette that can boot to real DOS
2. Please don't load HIMEM.SYS or any other memory management SW in the diskette

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## BIOS UPDATE INSTRUCTIONS FOR DOS:

1. Insert USB flash drive to system for BIOS upgrade
2. Power on system and boot to USB flash
3. Execute FB.BAT for bios update
  - a. Execute "FB.BAT 3" only Flash BIOS Command line
  - b. Execute "FB.BAT 2" need move ME flash jump(AC off) to flash ME firmware
4. After bios flash finish, system will reboot automatically, please do not remove USB flash
5. System will restore DMI data after boot to DOS again, please wait the message below,  
"All BIOS flash steps are done! Please AC OFF and AC ON again. Thanks!"
6. Done

## BIOS UPDATE INSTRUCTIONS FOR Windows:

1. Insert bios update USB flash drive.
2. Use Command Shell
3. Execute \Tool\Win32\f.cmd or \Tool\Win64\f.cmd for bios update
4. After bios flash finish, Please reboot windows system

## BIOS UPDATE INSTRUCTIONS FOR LINUX:

1. Insert bios update USB flash drive.
2. Use Command Shell
3. Execute \Tool\LNx\afulnx32\f.sh or \Tool\LNx\afulnx64\f.sh for bios update
4. After bios flash finish, Please reboot windows system

## BIOS Version CHECK INSTRUCTIONS:

1. Power on system and press F2 during POST
2. The bios version shows on the first main page

## Known Issues/Workarounds

## Issues fixed in this version

R10

- 1.Security update for 2019.2 Intel Platform Update (IPU).

[1] Update Microcode:Hasswell-EP M6F306F2\_00000043,Broadwell-EP MEF406F1\_0B000038.

[2] Update ACM :SINIT 3.1.3.

[3] Update Update SPS 03.01.03.72.0.

R09

1. ASPEED VBIOS update to 1.09.0 for CVE-2019-6260.

R08

1. Fix INTEL-SA-00233.

R07

1. Add workaround from MRC V4.4.0 for erratum: Systems That Enable Both OSB And IODC May Exhibit Unexpected System Behavior.

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## R06

1. Update microcode for Speculative Execution and Indirect Branch Prediction Side Channel Analysis Method.

Haswell-EP M6F306F2\_0000003D

Broadwell-EP MEF406F1\_0B00002E

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## R05

1. Update microcode for Speculative Execution and Indirect Branch Prediction Side Channel Analysis Method.

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## R04

1. Add solution of Intel Unsafe Opcodes exposed in Intel SPI based products.

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## R03

1. Update Broadwell-EP Microcode 0B000021.

2. Fix ECC UE 0xFF.

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## R02

1. Update Broadwell-EP Microcode 0B00001E.

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## R01

1. Official release support Broadwell-EP CPU.

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## T07

1. Update RC 3.10.

2. Update SPS FW 03.01.03.023.0.

3. Update RSTe 4.5.0.1333.

4. Fine tune QPI TAP and PCIe RXEQ setting.

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## T06

1. Update RC 3.00.

2. Update SPS FW 03.01.03.021.0.

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## T05

1. Update RC 2.91.

2. Update SPS FW 03.01.03.018.0.

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## F13

1. Update Microcode to 36.

2. Update sending system information to BMC.

3. Fix 4Kn HDD can't boot into DOS.

4. Fix Load Default Utility can't work.

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## F12

1. Fixed BIOS recovery failure.

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## F11

1. Fixed Add-on VGA resource issue.
2. Fixed BIOS recovery failure.
3. Fixed error log when [Active Video] as [Onboard Device].

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## F10

1. Support BMC update BIOS setup.
2. Fix ipmiboot for both old and new BMC FW.
3. BMC IPv6 display full IP address information when DHCP mode.
4. Support display POST code.
5. Fix LSI2008 and LSI2308 can't used shard OPRM.
6. Fix HDD Information not display under Web\_UI with UEFI RAID mode.
7. Support Power/Performance policy quick setting item.
8. Update SPS FW 03.00.07.154.0.
9. Update RC 1.10.
10. Update Microcode to 0x2D.
11. Fix system hang up when enable COD check error.
12. Fix S4 stress fail.
13. Fix 4Kn HDD size display wrong on BIOS setup.
14. Smart setting for COD and Snoop mode.

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## F09

1. Support BMC IPv6 setup item.
2. Update SPS FW 03.00.07.114.0.
3. Fix WHEA logger event ID 16.
4. Fix F12 network boot can't find HDD.
5. Update Microcode to 0x2A.
6. Disable PCIe SSC.
7. Update RC 1.05.
8. Support NVMe and PCIe SSD.
9. Support M/B information to BMC.
10. Fix system auto wakeup after enter S4.
11. Fix clear CMOS to load default issue.

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## F08

1. Support 1U system riser card.

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## F07

1. Fix LAN controller cannot be disabled with global reset.
2. Fix SIO fail message in Linux.
3. Fix A-DATA SPD ID wrong.
4. Fix press hot-key during POST cause system hang up.

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## F06

1. Update RC to 1.01

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2. Update Microcode to 0x1F.
  3. Update RSTe 4.1.0.1047.
  4. Update Intel TXT to 1.10A.
  5. Update SPS FW to 03.00.05.402.0\_11.
  6. Fix LAN control and OPRM incorrect.
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### F05

1. Update RC to 0.90.
  2. Fix 82599 LAN can't disable.
  - 3.[0017440] Fix system hang up when update BIOS under UEFI Linux OS.
  4. Update Microcode to 018 for CPU C-0 stepping.
  - 5.[0017448] Support Runtime Memory Single-Bit Error feature.
  - 6.[0017447] Support Runtime Memory Multi-Bit Error feature.
  - 7.[0017447] Support POST Memory Error feature.
  8. Support Beep when no DIMM installed.
  9. Fine tune Etron USB30.
  10. Fine tune setup menu.
  11. Update Intel TXT binary to v100\_PC1B.
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### F04

1. Default disable PCIe error report.
  2. Fix memory error SEL log format error.
  3. Update RC to 0.84.
  - 4.[0017369] Fix Sandra performance too low.
  5. Update SPS ME to 03.00.05.382.0\_08.
  6. Fix onboard VGA still display message when plug VGA card.
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### F03

1. Default disable Runtime Error Logging.
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### F02

1. Update TXT binary for PCH B1 stepping.
  2. Modify Power LED define.
  3. Fix SMBIOS CPU voltage error.
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### F01

- 1.[0017462] Update AST2400 VBIOS to 0.98.03.
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### D06

1. Update IRROM.
  2. Update SPS ME to 03.00.05.156.0\_07.
  - 3.[0016856] Fix chassis open function will cause system hang up.
  - 4.[0017533/0017535] Fix POST memory and SATA ODD information error.
  5. Fix IT8772 VIN3 reading error.
  - 6.[0016760] Support SERR/PERR error log function.
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## BIOS Release Notes

### D05

1. Set PROCHOT as Input/Output.
  2. Update RC to 0.83.
  3. Update Intel RSTe to 4.0.0.1045.
  4. Fine tune SMBIOS.
  5. Fine tune Etron USB strength.
  6. Update UEFI ROM install policy.
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### D04

1. Update AC back function policy.
  2. Support MX25L12873F and GD25B128C SPI.
  3. Support SPS NM PTU.
  4. [0017180]Fix PS2 keyboard and mouse show yellow exclamation mark in Windows Device Manager.
  5. [0017355]Fix COM mouse can't use under OS.
  6. Update TXT binary to 0.83D.
  7. Update Microcode to 00000014.
  8. Support IT8772 HW monitor for BMC.
  9. Support SERR/PERR error log.
  10. [0017005]Fix AFU tool can't use "/ME" command.
  11. Enable PCH thermal trip.
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### D03

1. Update Intel RAID to RSTe 4.0.0.1038.
  2. Enable program IR feature.
  3. Fixed When S4 resume, press F2 still can enter setup menu.
  4. Change project name to MD60-SC0.
  5. Support EFI network boot.
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### D02

1. Update ME to 03.00.04.459.0.
  2. Update RC code to 0.82.
  3. Update B-0 Microcode to 80000014.
  4. Support MAC as UUID.
  - 5.[0017182] It should not show hot-key when waken up S4.
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### D01

1. Update ME to 03.00.04.434.0.
  2. Support v0.2 MB.
  3. Support Secure Flash.
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### E09

1. Update ME to 03.00.03.695.0\_HotFix.
  2. Support Intel TXT.
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### E08

## BIOS Release Notes

1. Update RC to 0.81.
  - 2.[0016861] Default enable Intel USB3.0.
  - 3.[0016757,0016759] Fix WOL on S4.
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E07

1. Fix IntelRCSetup page can't load default.
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E06

1. Update RC to 0.80.
  2. Program SVID.
  3. Support <F12> force network boot.
  4. Enable CLTT.
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E05

1. Update ME to SPS 03.00.03.695.0.
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E04

1. Update RC to 0.79.
  2. Fixed memory frequency error.
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E03

1. Update SPS FW to 03.00.03.688.0\_02.
  2. Fine tune CPU PCIE RXEQ and TX PRESET.
  3. Fine tune PCH and Etron USB driving.
  4. Support auto config PCIE slot.
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E02

1. Update RC 0.78.
  2. Fix BSOD "CLOCK\_WATCHDOG\_TIMEOUT" on Windows 2012 Legacy mode.
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E01

1. First release.
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