

BIOS Release Notes

TITLE

SUBJECT: MH60-RE1 BIOS Release Notes version [R20](#)
System: [T173-138](#), [T173-258](#), [T280-32Q](#), [T28N-32Q](#), [T280-35I](#), [H23N-H60](#), [T280-32C](#),
[T28N-32C](#), [T180-3M2](#), [T280-33C](#), [TO21-C20](#), [TO21-C21](#)

About This Release

Build Date: [2019/12/3](#)
BIOS Checksum: [0x59480DB4](#) (8M), [0xCF5BB59D](#) (16M)
Release Owner: Jonas.Hsu

BIOS Components/Contents

Processor stepping(s) supported: supports Intel® Haswell-EP/Broadwell-EP processors
System hardware configurations supported: MH60-RE1
Microcode updates versions:

CPUID	Family	Microcode Update ID
406F0	Broadwell-EP Processor A-0, A-1, L-0	00000014
406F1	Broadwell-EP Processor B-0, M-0, R-0	0B000038
306F0	Haswell-EP Processor A-0	FFFF0017
306F1	Haswell-EP Processor B-0	00000014
306F2	Haswell-EP Processor C-0, C-1, M-0, M-1, R-2	00000043

IPMI support:

AMI Kernel version: [Gbt_Kernel_023_170](#)

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

SPI Descriptor version: [03.01.03.072.0_05](#)

OPROM version :

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

Installation Notes

IMPORTANT NOTES:

1. Please extract the MH60-RE1_[R20](#).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

BIOS UPDATE INSTRUCTIONS FOR DOS:

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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

R20

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.

R19

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

R18

1. Fix INTEL-SA-00233.

R17

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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R16

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

Haswell-EP M6F306F2_0000003D

Broadwell-EP MEF406F1_0B00002E

R15

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

R14

1. Modify PurleyNVMePortingCallback() to use Purley NVMe card on specific slot.

R13

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

R12

1. Fixed issue that Mellnox lan mac incorrect on Web UI.

R11

1. Update Broadwell-EP Microcode 0B000021.

2. Fix ECC UE 0xFF.

R10

1. Fine tune PCIe single for T280-32Q, T28N-32Q, T280-32C, T28N-32C and T280-33C.

2. Fine tune SATA single for T280-32Q, T28N-32Q, T280-32C, T28N-32C and T280-33C.

R09

1. Update Broadwell-EP Microcode 0B00001E.

R06

1. Fix NVMe hot plug fail on some port.

R04

1. Fine tune PCIe RXEQ.

R03

1. Fix setup menu MAC display wrong.

R03

1. Update DIMM Manufacturer list.

R02

1. Default disable PCIe error report.

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R01

1. Official release support Broadwell-EP CPU.
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T08

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.
 5. Fine tune SATA single.
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T07

1. Update RC 3.00.
 2. Update SPS FW 03.01.03.021.0.
 3. Update VR power solution.
 4. Update SATA single.
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