BIOS Release Notes

TITLE

SUBJECT:	MS94-FS0 BIOS Release Notes version F38
System:	MS94-FS0-000, R184-S91-AAV1-000, MS94-FS0-00A, R184-S90-AAV1-000, R184-S92-AAV1-000, R184-S92-LAV1-000, R184-S93-AAV1-GB0, R284-S90-AAJ1-000, R284-S92-AAJ1-000, R284-S92-AAJ2-GB0, R284-S90-AAJ2-GB0, R284-S94-AAJ1-GB0, E284-S90-AAJ1-000, R284-S93-AAL1-000, R184-S94-AAV1-000, R284-S91-AAJ1-000, R284-S91-AAJ2-000, R284-S91-AAJ3-GB0

About This Release

Build Date: **2026/09/03**
BIOS Checksum: **0xAF0DA461 (flashabl.rom), 0x4D6AA3CB (image.bin), 0x4D3C9B09 (PFR1.bin), 0x4D22C497 (PFR2.bin), 0x97EF3017 (PFRcap.bin)**
Release Owner: **jeff.huang**

BIOS Components/Contents

Processor stepping(s) supported: IntelR Granite Rapids-SP, Sierra Forest-SP processor
System hardware configurations supported: MS94-FS0
Microcode updates versions:

CPUID	Family	Microcode Update ID
a06d0	Processor GNR A0	10000680
a06d1	Processor GNR B0	01000444
a06d1	Processor GNR R1S B0	0a000164
a06f3	Processor SRF C0	030003c4

IPMI support:
AMI Kernel version: **Gbt_Kernel_110_10**
Intel CSI/MRC Package version: **3545.P53**
OPROM version:

OPROM	Version

BIOS Release Notes

AST2600 VGA	1.13.05
INTEL RAID PACKAGE	RSTe 9.0.0.1096

Installation Notes

IMPORTANT NOTES:

1. Please extract the MS94-FS0_F38.zip to a bootable diskette that use FAT/FAT32 format

BIOS UPDATE INSTRUCTIONS FOR EFI Shell:

1. Insert USB flash drive to system for BIOS upgrade.
2. Power on system and boot to Build-In Shell.
3. Enter your USB filesystem, like “fs0:” or “fsx:”, “x” is your USB filesystem number
4. Execute F.nsh for bios update
5. After bios flash finish, system must Power-Off to have the changes take effect.

BIOS UPDATE INSTRUCTIONS FOR Windows:

1. Insert bios update USB flash drive.
2. Use Command Shell.
3. Enter \Tool\Win32 and execute f.bat for Windows 32bit.
   Or
   Enter \Tool\Win64 and execute f.bat for Windows 64bit.
4. After bios flash finish, system must Power-Off to have the changes take effect.

BIOS UPDATE FOR Easy BIOS Refresh:

1. The system supports remotely update BIOS if BMC existent.
2. Please download the Easy BIOS Refresh User Guide from Gigabyte website, target system support page.

BIOS Version CHECK INSTRUCTIONS:

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

Known Issues/Workarounds

Issues fixed in this version

F38

1. [Feature] Update RC 3545.P53 (2026 BKC WW31)

2. [Feature] Update microcode:
GNR A0 MCU : m_95_a06d0_1000068
GNR B0 MCU : m_95_a06d1_01000444
GNR R1S B0 MCU : m_20_a06d1_0a000164
SRF C0 MCU : m_01_a06f3_030003c4
3. [Feature] Include AMI SA50352 for CVE-2026-31789, CVE-2026-31790, CVE-2026-28387, CVE-2026-28388, CVE-2026-34874, CVE-2026-25835, CVE-2026-34876, CVE-2026-25834, CVE-2026-25833
4. [Feature] Include AMI SA50347 for CVE-2026-33198

F37
1. [Feature] Update RC 3545.P22 (2026 BKC WW21)
2. [Feature] Update microcode:
GNR A0 MCU : m_95_a06d0_1000068
GNR B0 MCU : m_95_a06d1_01000434
GNR R1S B0 MCU : m_20_a06d1_0a000151
SRF C0 MCU : m_01_a06f3_030003b2
3. [Bug Fix] Include AMI SA50336 for CVE-2025-58771, CVE-2025-58772, CVE-2025-58773, CVE-2025-58774
4. [Bug Fix] Include AMI SA50344 for CVE-2026-20716
5. [Bug Fix] Include AMI SA50348 for CVE-2026-33197
6. [Bug Fix] Include INTEL-SA-01442 for CVE-2026-20713
7. [Bug Fix] Include INTEL-SA-01437 for CVE-2026-20712
8. [Bug Fix] Include INTEL-SA-01439 for CVE-2026-20898
9. [Bug Fix] Include INTEL-SA-01436 for CVE-2026-20775, CVE-2026-20885, CVE-2026-20705

F36
1. [Feature] Set default value of "Maximum 2DPC Frequency" from 5200 to 6000
2. [Bug Fix] Fine tune remote setup menu setting
3. [Bug Fix] Update Mapping table: R49

F35
1. [Bug Fix] 1. Update RC 3545.P22 (2026 BKC WW11)
2. [Bug Fix] 2. Update microcode:
GNR A0 MCU : m_95_a06d0_10000680
GNR B0 MCU : m_95_a06d1_01000423
GNR R1S B0 MCU : m_20_a06d1_0a000142
SRF C0 MCU : m_01_a06f3_030003a3
3. [Feature] 3. Support Memory 2DPC frequency 6000.
4. [Bug Fix] 4. Include AMI SA50338 solution for CVE-2025-35973.

5. [Bug Fix] 5. Include AMI SA50342 solution for CVE-2025-15467, CVE-2025-68160, CVE-2025-69418, CVE-2025-69419, CVE-2025-69421, CVE-2026-22795, CVE-2026-22796, CVE-2026-11187
6. [Bug Fix] 6. Include AMI SA50328 solution for CVE-2025-9613, CVE-2025-9614, CVE-2025-9612.
7. [Bug Fix] 7. Include AMI SA50337 solution for CVE-2026-0893.
8. [Bug Fix] 8. Include INTEL-SA-01419 for CVE-2025-31356

F34

1. [Feature] Support Memory "Team Group".
2. [Feature] Support "Clear CMOS IPMI command".

F33

1. [Feature] Update RC 3545.P03 (2025 BKC WW47)
2. [Feature] Update microcode:

GNR A0 MCU : m_95_a06d0_10000680
GNR B0 MCU : m_95_a06d1_01000405
GNR R1S B0 MCU : m_20_a06d1_0a000133
SRF C0 MCU : m_01_a06f3_03000393

3. [Feature] Include INTEL-SA-01397 solution for CVE-2025-30513, CVE-2025-32007, CVE-2025-32467, CVE-2025-27572, CVE-2025-27940, CVE-2025-31944
4. [Feature] Include INTEL-SA-01396 solution for CVE-2025-31648
5. [Feature] Include AMI SA50321 solution for CVE-2025-31938

F32

1. [Feature] Support Data link feature exchange (DLFE) setup item for each slot.
2. [Feature] Update VR solution : B1.

F31

1. [Feature] Update RC 3544.P80 (2025 BKC WW38 UPLR1.5)
2. [Feature] Update microcode:

GNR B0 MCU : m_95_a06d1_010003f3
GNR R1S B0 MCU : m_20_a06d1_0a000124
SRF C0 MCU : m_01_a06f3_03000382

3. [Feature] Include INTEL-SA-01314 solution for CVE-2025-22885
4. [Feature] Include AMI SA50318 solution for CVE-2025-30185, CVE-2025-31936

F30

1. [Feature] Include AMI SA50315 solution for CVE-2025-3052.

F29

1. [Bug Fix] Fix the bug about incorrect remote setup item.
2. [Feature] Support setup item PXE boot enable/disable for slot.

F28

1. [Feature] Update RC 3544.P60 (BKC 2025 WW20)
2. [Feature] Update microcode:

GNR B0 MCU : m_95_a06d1_010003c2
GNR R1S B0 MCU : m_20_a06d1_0a0000f2
SRF C0 MCU : m_01_a06f3_03000362

3. [Feature] Include AMI SA50313 solution for CVE-2025-26403, CVE-2025-32086
4. [Feature] Include INTEL-SA-01313 solution for CVE-2025-21090, CVE-2025-20053
5. [Feature] Include INTEL-SA-01234 solution for CVE-2025-20027, CVE-2025-20028, CVE-2025-22444, CVE-2025-22850
6. [Feature] Include INTEL-SA-01312 solution for CVE-2025-22853, CVE-2025-21096, CVE-2025-20613

F27

1. [Bug Fix] Fix the bug about some remote BIOS setup item disappear.

F26

1. [Bug Fix] Fix BIOS recovery fail issue.
2. [Bug Fix] Fix the bug about linux command "numactl -H" will show node distance as 0xFF.

F25

1. [Feature] 1. Update RC 3544.P48 (BKC 2025 WW14)
2. [Feature] 2. Update microcode:

GNR B0 MCU : m_95_a06d1_010003A3
GNR R1S B0 MCU : m_20_a06d1_0a0000d1
SRF C0 MCU : m_01_a06f3_03000341

3. [Bug Fix] 3. [Bug Fix] Include AMI SA50306 solution for CVE-2024-13176

F24

1. [Feature] Support GBTGSI feature.
2. [Feature] Update Mapping table : R48

F23

1. [Feature] Support Microsoft Option ROM UEFI CA 2023 for Secure Boot

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F22

1. [Feature] Update RC 3544.P29 (BKC 2025 WW03)
2. [Feature] Update microcode:

GNR A0 MCU : m_95_a06d0_10000680
GNR B0 MCU : m_95_a06d1_01000380
GNR R1S B0 MCU : m_20_a06d1_0a0000c0
SRF C0 MCU : m_01_a06f3_03000330

3. [Feature] Update Mapping table : R46
4. [Feature] Implement Lan disable feature.

F21

1. [Bug Fix] Fix the bug about Slot I/O rom fail.
2. [Feature] Improve KCS protocol.
3. [Feature] Update Mapping table : R45

F20

1. [Feature] Update RC 3544.P22 (BKC 2024 WW48)
2. [Feature] Update microcode:

GNR A0 MCU : m_95_a06d0_10000680
GNR B0 MCU : m_95_a06d1_01000360
GNR R1S B0 MCU : m_20_a06d1_0a000080
SRF C0 MCU : m_01_a06f3_03000270

3. [Feature] Update Mapping table : R43
4. [Bug Fix] Fixed the CXL OS issue.
5. [Feature] First ROT BIOS package release

F19

1. [Bug Fix] Fix the bug about device resource related function.
2. [Feature] Update AST2600 driver : 1.13.05
3. [Feature] Update VR solution to version A5.

F18

1. [Feature] Add TI VR feature.

F17

1. [Feature] Update RC 3544P.08 (BKC 2024 WW43)
2. [Feature] Update microcode:

GNR A0 MCU : m_95_a06d0_10000680
GNR B0 MCU : m_95_a06d1_01000311
GNR R1S B0 MCU : m_20_a06d1_1a000080
SRF C0 MCU : m_01_a06f3_03000270

3. [Feature] Update Mapping table : R42

F16

1. [Bug Fix] Add intel patch for preventing boot failed with Samsung's specific dimms.
2. [Bug Fix] Fix the bug about system will hang code after changing slot lanes.
3. [Feature] Update Mapping table : R38

F15

1. [Feature] Support GNR R1S B0 stepping CPU.

F14

1. [Feature] Update RC 34.D65 (BKC 2024 WW33).
2. [Feature] Update microcode:

GNR A0 MCU : m_95_a06d0_80000670
GNR B0 MCU : m_95_a06d1_810002e0
SRF C0 MCU : m_01_a06f3_03000211

3. [Feature] VROC driver : 9.0.0.1096
4. [Bug Fix] Fix the bug about incorrect ECC CE/UCE sel information.
5. [Feature] Update inventory.bin R37.

F13

1. [Feature] Update SRF PROD/QS microcode : m_01_a06f3_03000211

F12

1. [Bug Fix] Fix the bug about PCIe device out of resource.
2. [Feature] Update system mapping table to version 36.

F11

1. [Bug Fix] Support SRF PRQ C0 stepping CPU.

F10

1. [Bug Fix] Fix the bug about incorrect SVID.

F09

1. [Feature] Support dual BIOS check command.
2. [Bug Fix] Fix the bug about remote setup error.
3. [Bug Fix] Fix the ECC/PERR/SERR incorrect format.

F08

1. [Feature] Update VR solution to version A3.

2. [Bug Fix] Fix the item "ACPI C1 Enumeration" not post to remote setup.

F07

1. [Feature] Update RC 3218.D03 (BKC 2024 WW21)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_80000640
SRF C0 MCU : m_01_a06f3_13000132

3. [Feature] VROC driver : 9.0.0.1096
4. [Bug Fix] Fix the bug about BIOS recovery feature.
5. [Bug Fix] Fix the bug about incorrect remote setup menu information.

F06

1. [Feature] Update RC 0031.D97 (BKC 2024 WW19)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_80000640
SRF C0 MCU : m_01_a06f3_13000132

3. [Feature] VROC driver : 9.0.0.1096
4. [Bug Fix] Fix yellow device of com port.

F05

1. [Bug Fix] Fix the bug about incorrect information on remote BIOS setup menu.

F04

1. [Feature] Set Trigger SW Error Threshold to Disable.

F03

1. [Bug Fix] Fixed USB ports show incorrect info.

F02

1. [Bug Fix] Fix Windows BSOD bug.

F01

1. [Feature] First PVT BIOS release.

D26

1. [Bug Fix] Fix the bug about randomly windows crash. (BSOD)

D25

1. [Feature] Update system mapping to version 33.
2. [Bug Fix] Fix the bug about no TME related item.

D24

1. [Feature] Update system mapping table to version 32.

D22

1. [Bug Fix] Fix minor bugs.

D21

1. [Feature] Add Power Policy setup item.
2. [Bug Fix] Update Mapping table version : 31

D20

1. [Bug Fix] Fix the bug about hanging code at 0x92 durning VMD enable.

D19

1. [Feature] Update RC 0031.D27 (BKC 2024 WW15)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_80000620
SRF C0 MCU : m_01_a06f3_13000132

3. [Feature] VROC driver : 9.0.0.1096

D18

1. [Bug Fix] Fixed ECC sel log error.

D17

1. [Feature] Update RC 0030.D85 (BKC 2024 WW13)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_80000611
SRF C0 MCU : m_01_a06f3_13000131

3. [Feature] VROC driver : 9.0.0.1096

D16

1. [Bug Fix] Fine tune release note information.

D15

1. [Feature] Fine tune WOL default setting to "Enable"

2. [Bug Fix] Fix SMBIOS Type 16 incorrect information.
3. [Feature] Support "Power Button 1s shutdown" function under OS.
4. [Bug Fix] Fix IPV6 setting bug.
5. [Bug Fix] Fix ECC information durnung POST.
6. [Bug Fix] Fix NVMe port number incorrect in POST Text phase with VMD enable.
7. [Bug Fix] Fix Main page "Processor" incorrect information.
8. [Bug Fix] Fix ECC Bad DIMM will disappear after UCE occur.
9. [Bug Fix] Fix SMBIOS Type 129 incorrect information.

D14

1. [Bug Fix] Because release VROC driver 9.0.0.1088 have bug, rollback VROC driver to 9.0.0.1096.

D13

1. [Feature] Support SRF QS C0 stepping CPU.

D12

1. [Feature] Update kernel 5.34_0ACQZ_30D54_SRFSP_48_BETA
2. [Feature] Update RC 0030.D54 (BKC 2024 WW11)
3. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_80000600

4. [Feature] VROC driver : 9.0.0.1088

D11

1. [Feature] Implement USB mapping.

D10

1. [Feature] Update Mapping table version : 29.

D09

1. [Feature] Add in system "R184-S92-LAV1-000".

D08

1. [Bug Fix] Fixed Lan disabled error.

D07

1. [Feature] Update RC 0030.D34 (BKC 2024 WW09)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000360

GNR A0 MCU : m_01_a06f0_800005c0
3. [Feature] VROC driver : 9.0.0.1096
4. [Bug Fix] Update mapping table version : 28.

D06
1. [Feature] Update RC 0029.D87 (BKC 2024 WW07)
2. [Feature] Update microcode:
SRF A0 MCU : m_01_a06f0_80000360
GNR A0 MCU : m_01_a06f0_800005c0
3. [Feature] VROC driver : 9.0.0.1096

D05
1. [Feature] Add GPU SKU related feature set.

D04
1. [Bug Fix] Fixed ECC memory error.
2. [Feature] Add VMD & non-hotplug VMD feature.

D03
1. [Feature] Update MPS VR version : A2.

D02
1. [Feature] Update RC 0029.D28 (BKC 2024 WW05)
2. [Feature] Update microcode:
SRF A0 MCU : m_01_a06f0_80000351
GNR A0 MCU : m_01_a06f0_80000593
3. [Feature] Update MPS VR version : A1.

D01
1. [Feature] First DVT release BIOS.

E18
1. [Bug Fix] Fine tune MS94-FS0-00A SKU setting.

E17
1. [Bug Fix] Fixed present pin bifurcation error.
2. [Bug Fix] Fixed one CPU hang on mapping table.

E16
1. [Feature] Fine tune Setup menu item.

E15

1. [Bug Fix] Fixed VPP settings solution.

E13

1. [Feature] Update system mapping table to version 17.

- system "R184-S91-AAV1-000" with BPB region.

E12

1. [Feature] Add BPB region into system mapping table for system "R184-S91-AAV1-000".

E11

1. [Feature] Modified OCP bifurcation ready GPIO setting.

E10

1. [Feature] Implement VPP settings.
2. [Feature] Update the system mapping table to version 15.

E09

1. [Feature] Update VROC driver to 9.0.0.1096.

E08

1. [Bug Fix] Fix the bug about shell.efi not show correct information.

E07

1. [Feature] Update RC 2780.D02 (BKC 2023 WW47)
2. [Feature] Update microcode:

SRF A0 MCU : m_01_a06f0_80000340

GNR A0 MCU : m_01_a06f0_80000520

3. [Feature] VROC driver : 9.0.0.1044_2
4. [Feature] Support SRF CPU VROC.

E06

1. [Bug Fix] Fine tune OCP related GPIO setting.

E05

1. [Feature] Add first VR MPS solution.

E04

1. [Feature] Add SEC phase bifurcation setting.

2. [Bug Fix] Modify vGPIO pins 80 ~ 83 GPIO reset config.

E03

1. [Bug Fix] Fix the bifurcation feature bug.
2. [Feature] Implement test version VR solution.

- Version: MSB4-G40 A1

E02

1. [Feature] Update system mapping to R14.
2. [Bug Fix] Modified system bifurcation.

E01

1. [Feature] First release BIOS.
