
Keysight M9538A BIOS Update Utility

Description

This Keysight M9538A BIOS upgrade utility allows you to restore or update the BIOS in your M9538A PXIe Embedded Controller. As an example, this Update Guide will use BIOS version 0.07.10.

There are three primary steps to updating the BIOS:

- A) Obtain the M9538A BIOS files from the Keysight M9538A Embedded Controller website.
- B) Create a bootable USB flash drive using Rufus Tool.
- C) Use the bootable USB flash drive to update the BIOS in your M9538A controller.

The remainder of this guide provides instructions on obtaining the necessary files and using them to update the M9538A controller BIOS.

NOTE

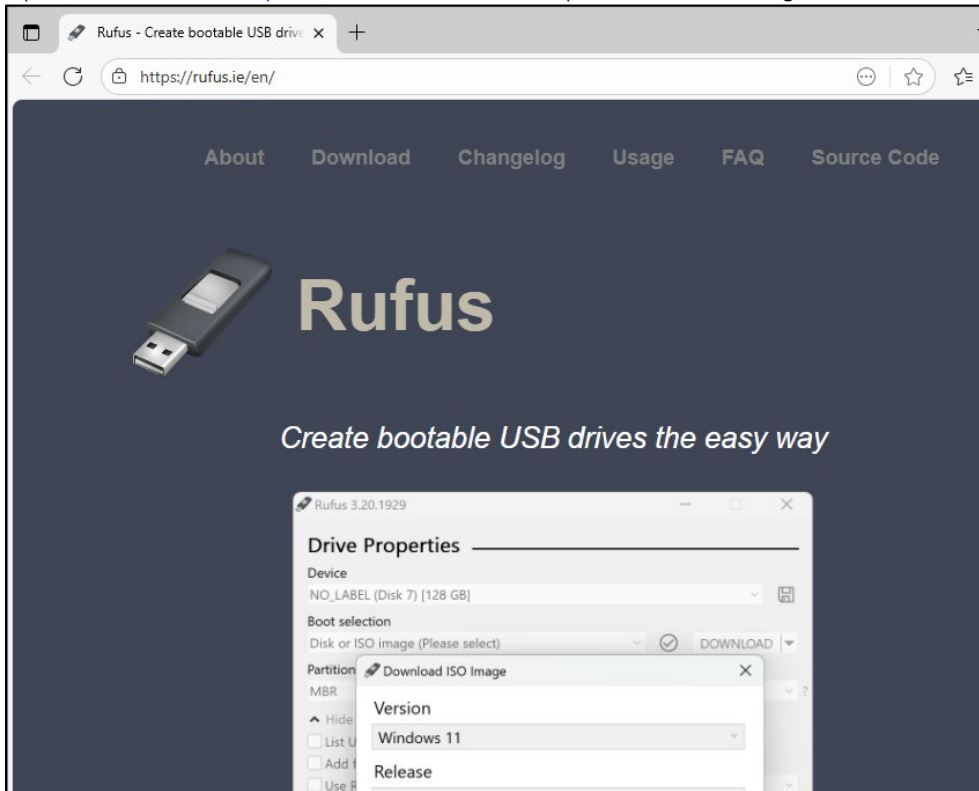
In order to upgrade the BIOS, you must be logged in the Keysight M9538A Embedded Controller as a single user with Administrator privileges. If you are not, you must logout and then login in again as a single user to an account with Administrator privileges. Set the User Account Control to the default position.

Step A. Obtain M9538A BIOS Files

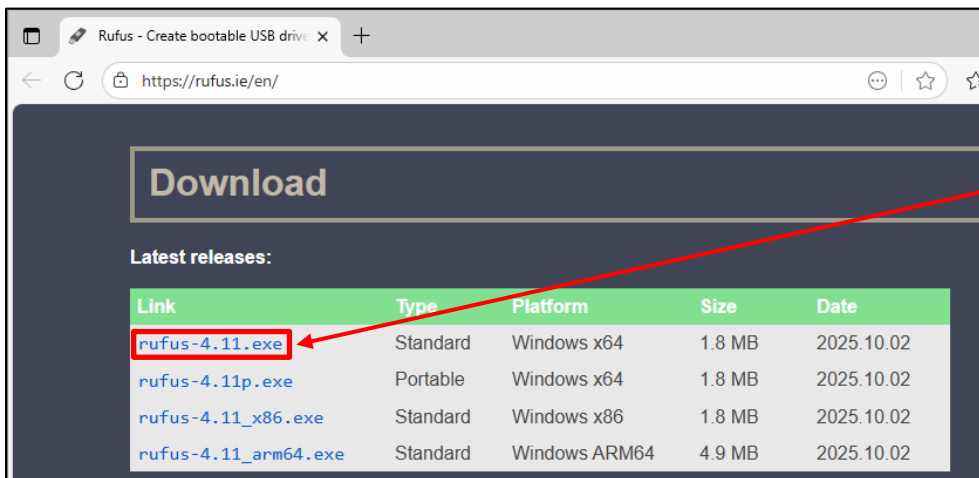
- 1) Open your browser to: www.keysight.com/find/M9538A.
- 2) Left click on **Visit Technical Support**.
- 3) Left click the tab named **Drivers, Firmware & Software**.
- 4) Select **M9538A BIOS Downloads**.
- 5) Click the **Download** button and save the downloaded zip file.
- 6) Move the **M9538A_0.07.10_FactoryUpdateMEBIOS_Consumer** zip file to the M9538A desktop.

Step B. Create A Bootable USB Flash Drive

- 1) Insert an empty USB flash drive into a USB port on the M9538A. A 16GB flash drive or larger should be used.
- 2) Open browser to: <https://rufus.ie/en/>. This opens the following window.



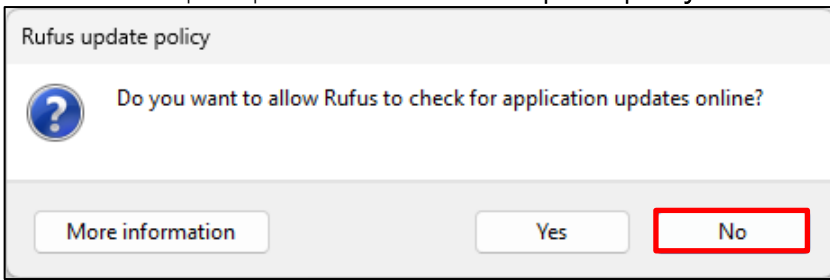
- 3) Scroll down to the **Download** section and click on the **Rufus** link.



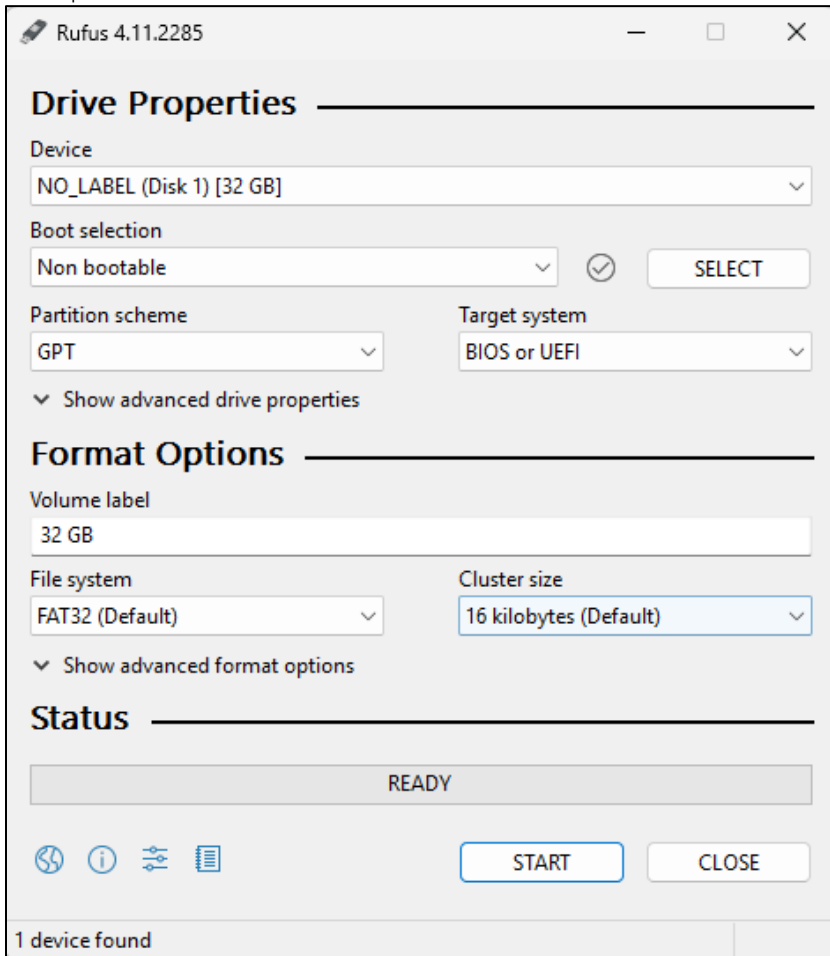
- 4) Run the downloaded Rufus utility.

Name	Date modified	Type
 rufus-4.11	11/6/2025 7:35 PM	Application

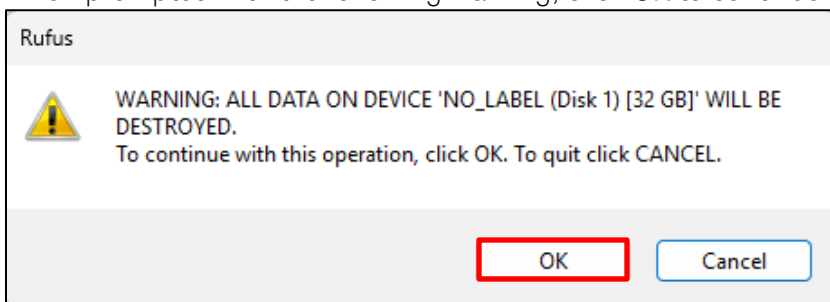
- 5) Click **No** when prompted about the Rufus update policy.



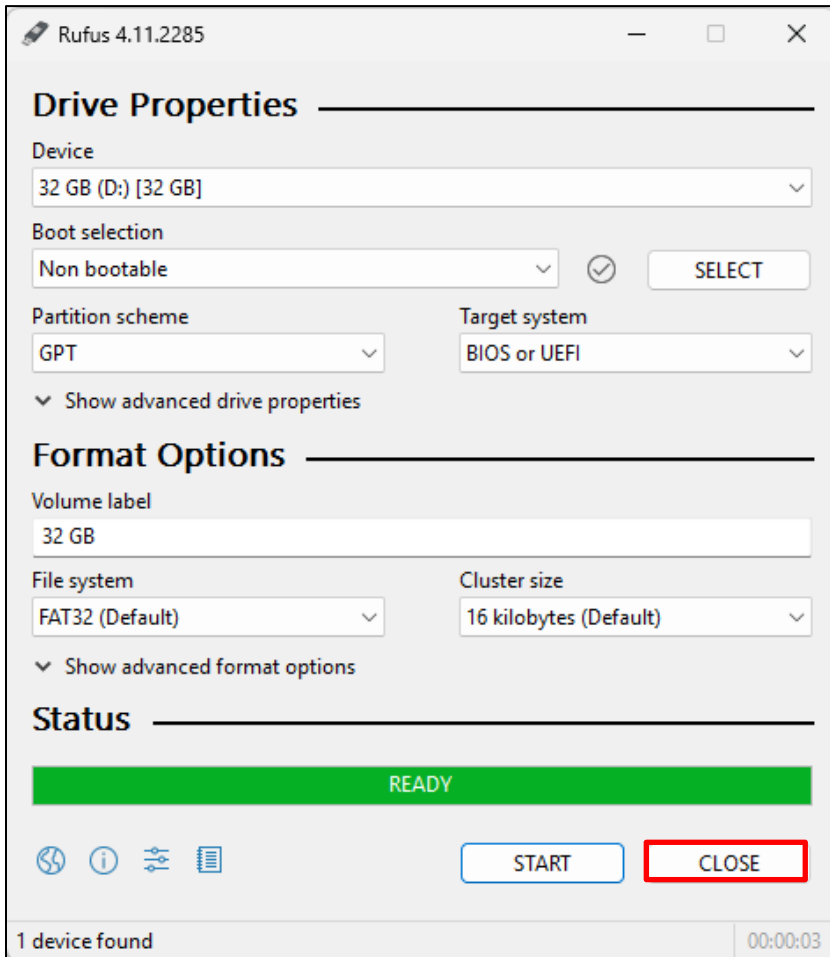
- 6) Verify that the **Device** shown is correct and select all the **Options** following in the image below. In this example there is a 32GB flash drive.



- 7) Click on **Start**.
- 8) When prompted with the following warning, click **OK** to continue.



- 9) In less than 5 seconds the **READY** progress bar will be filled up. The screen should now look like this. Click **Close**.



- 10) You have created a bootable USB flash drive. You are ready for Step C.

Step C. Update the M9038A BIOS

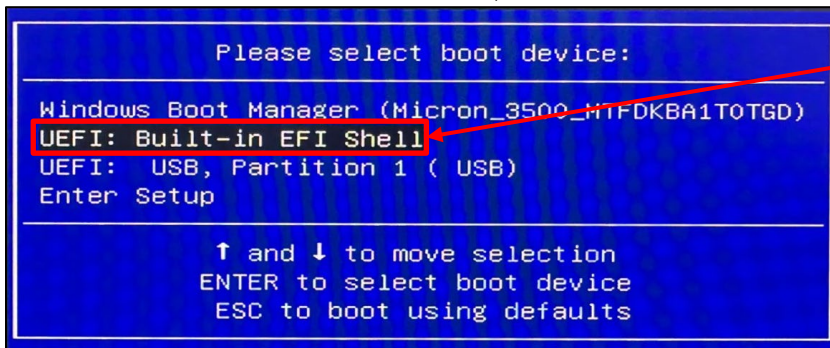
- 1) Using the zip file you have downloaded from **Step A**, unzip it to your desktop.
- 2) You will have the unzip folder **M9038A_KS09.0_UpdateMEBIOS**, which contains several files as listed in the image below.

Name	Date modified	Type
1Unlock.nsh	9/19/2025 3:55 PM	NSH File
2pSPI_Cons.nsh	9/19/2025 3:55 PM	NSH File
3Lock.nsh	9/19/2025 3:55 PM	NSH File
4MEManuf.nsh	9/19/2025 3:55 PM	NSH File
5Closemfn.nsh	9/19/2025 3:55 PM	NSH File
6EOL.nsh	9/19/2025 3:55 PM	NSH File
7FWCheck.nsh	9/19/2025 3:55 PM	NSH File
fparts	9/19/2025 3:33 PM	Text Document
Fpt.efi	9/19/2025 3:33 PM	EFI File
FwCheck.efi	9/19/2025 3:33 PM	EFI File
FwCheck.nsh	9/19/2025 3:55 PM	NSH File
M9538A_00710_Consumer_B_QM580.BIN	9/19/2025 3:54 PM	BIN File
MeLock.efi	9/19/2025 3:33 PM	EFI File
MEManuf.efi	9/19/2025 3:33 PM	EFI File
MeUnlock.efi	9/19/2025 3:33 PM	EFI File
vsccommn.bin	9/19/2025 3:33 PM	BIN File

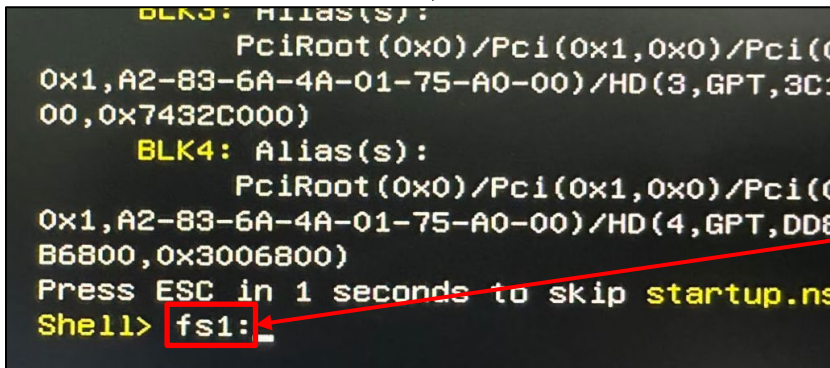
- 3) Drag and drop the files to the bootable USB flash drive that you had created at **Step B**. The screen should now look like this.

Name	Date modified	Type
autorun	11/6/2025 7:39 PM	Icon
autorun	11/6/2025 7:39 PM	Setup Information
4MEManuf.nsh	9/19/2025 3:55 PM	NSH File
5Closemfn.nsh	9/19/2025 3:55 PM	NSH File
6EOL.nsh	9/19/2025 3:55 PM	NSH File
7FWCheck.nsh	9/19/2025 3:55 PM	NSH File
fparts	9/19/2025 3:33 PM	Text Document
Fpt.efi	9/19/2025 3:33 PM	EFI FILE
FwCheck.efi	9/19/2025 3:33 PM	EFI FILE
FwCheck.nsh	9/19/2025 3:55 PM	NSH File
M9538A_00710_Consumer_B_QM580.BIN	9/19/2025 3:54 PM	BIN File
MeLock.efi	9/19/2025 3:33 PM	EFI FILE
MEManuf.efi	9/19/2025 3:33 PM	EFI FILE
MeUnlock.efi	9/19/2025 3:33 PM	EFI FILE
vsccommn.bin	9/19/2025 3:33 PM	BIN File
1Unlock.nsh	9/19/2025 3:55 PM	NSH File
2pSPI_Cons.nsh	9/19/2025 3:55 PM	NSH File
3Lock.nsh	9/19/2025 3:55 PM	NSH File

- 4) With the USB flash drive plugged into the M9038A, reboot and press **F7** key several times during the boot up screen. Choose **UEFI: Built-in EFI Shell**, then **Enter**.



- 5) Under Shell> enter command **fs1:**, then **Enter**.



- 6) Under FS1:\> enter command ls, then Enter.

```
BLK3: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pc
0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,
00,0x7432C000)
BLK4: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pc
0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,
B6800,0x3006800)
Press ESC in 1 seconds to skip startup
Shell> fs1:
FS1:\> ls
```

- 7) This will check the files inside the bootable USB flash drive. The screen should now look like this.

```
Press ESC in 1 seconds to skip startup.nsh or any other
Shell> fs1:
FS1:\> ls
Directory of: FS1:\
11/06/2025  19:39                198  autorun.inf
11/06/2025  19:39            34,494  autorun.ico
09/19/2025  14:55                37  4MEManuf.nsh
09/19/2025  14:55                46  5Closemfn.nsh
09/19/2025  14:55                42  6EOL.nsh
09/19/2025  14:55                51  7FWCheck.nsh
09/19/2025  14:33            15,373  fparts.txt
09/19/2025  14:33        1,895,808  Fpt.efi
09/19/2025  14:33            12,192  FwCheck.efi
09/19/2025  14:55                51  FwCheck.nsh
09/19/2025  14:54        33,554,432  M9538A_00710_Cons
09/19/2025  14:33                928  MeLock.efi
09/19/2025  14:33        1,784,928  MEManuf.efi
09/19/2025  14:33                928  MeUnlock.efi
09/19/2025  14:33                7,970  vsccommn.bin
09/19/2025  14:55                15  1Unlock.nsh
09/19/2025  14:55                470  2pSPI_Cons.nsh
09/19/2025  14:55                13  3Lock.nsh
      18 File(s)  37,307,976 bytes
       0 Dir(s)
FS1:\> _
```

- 8) Under FS1:\> type command 1Unlock.nsh, then Enter. Unit will auto reboot.

```
09/19/2025  14:33            12,192  FwChk
09/19/2025  14:55                51  FwChk
09/19/2025  14:54        33,554,432  M9538
09/19/2025  14:33                928  MeLo
09/19/2025  14:33        1,784,928  MEMa
09/19/2025  14:33                928  MeUn
09/19/2025  14:33                7,970  vscc
09/19/2025  14:55                15  1Unl
09/19/2025  14:55                470  2pSP
09/19/2025  14:55                13  3Lock
      18 File(s)  37,307,976 bytes
       0 Dir(s)
FS1:\> 1Unlock.nsh
```

- 9) Press F7 key several times during the boot up screen. Choose UEFI: Built-in EFI Shell, then Enter.

```
Please select boot device:
-----
Windows Boot Manager (Micron_3500_MTFDKBA1T0TGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup
-----
↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

- 10) Under Shell> type command fs1:, then Enter.

- 11) Under FS1:\> type command 2pSPI_Cons.nsh, then Enter.

```
BLK3: Alias(s):
      PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x1,0x0)/Pci(0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,3C12:00,0x7432C000)
BLK4: Alias(s):
      PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x1,0x0)/Pci(0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,DD88:B6800,0x3006800)
Press ESC in 1 seconds to skip startup.nsh
Shell> fs1:
FS1:\> 2pSPI_Cons.nsh
```

- 12) Press Enter again to continue.

- 13) Once successfully updated, the screen should now look like this.

```
as power cycle to complete the flashing process.
FPT Operation Successful.
FS1:\> echo Done, please cycle power or reset the system
Done, please cycle power or reset the system now, and
FS1:\> echo setup to configure settings...
setup to configure settings...
FS1:\> _
```

- 14) Press the power button to shut down the unit and then power on the unit again.

- 15) Press F7 key several times during the boot up screen. Choose UEFI: Built-in EFI Shell, then Enter.

```
Please select boot device:
-----
Windows Boot Manager (Micron_3500_MTFDKBA1T0TGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup
-----
↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

- 16) Under Shell> type command fs1:, then Enter.

17) Under FS1:\> type command 3Lock.nsh, then Enter. Unit will auto reboot.

```
BLK3: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x0,0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,3C128EA700,0x7432C000)
BLK4: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x0,0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,DD887568B6800,0x3006800)
Press ESC in 4 seconds to skip startup.nsh or
Shell> fs1:
FS1:\> 3Lock.nsh
```

18) Press F7 key several times during the boot up screen. Choose UEFI: Built-in EFI Shell, then Enter.

```
Please select boot device:
-----
Windows Boot Manager (Micron_3500_MTFDKBA1TOTGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup
-----
↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

19) Under Shell> type command fs1:, then Enter.

20) Under FS1:\> type command 4MEManuf.nsh, then Enter.

```
BLK3: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x0,0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,3C128EA700,0x7432C000)
BLK4: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pci(0x0,0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,DD887568B6800,0x3006800)
Press ESC in 5 seconds to skip startup.nsh or
Shell> fs1:
FS1:\> 4MEManuf.nsh
```

21) Once successfully updated, the screen should now look like this.

```
Shell> fs1:
FS1:\> 4MEManuf.nsh
FS1:\> rem For M9538A Project Use
'rem' is not recognized as an internal or external command,
operable program or batch script file.
FS1:\> MEManuf
Intel (R) ME Manuf Version: 15.0.45.2421
Copyright (C) 2005 - 2023, Intel Corporation

MEManuf Operation Passed
FS1:\> _
```

- 22) Press the power button to **shut down** the unit and then **power on** the unit again.
- 23) Press **F7** key several times during the boot up screen. Choose **UEFI: Built-in EFI Shell**, then **Enter**.

```
Please select boot device:

Windows Boot Manager (Micron_3500_MTFDKBA1TOTGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

- 24) Under Shell> type command **fs1:**, then **Enter**.
- 25) Under FS1:\> type command **5Closemfn.nsh**, then **Enter**. Unit will auto reboot.

```
BLK3: Alias(s):
      PciRoot (0x0)/Pci(0x1,0x0)/Pci(0x
0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,3C12
00,0x7432C000)
BLK4: Alias(s):
      PciRoot (0x0)/Pci(0x1,0x0)/Pci(0x
0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,DD88
B6800,0x3006800)
Press ESC in 1 seconds to skip startup.nsh
Shell> fs1:
FS1:\> 5Closemfn.nsh
```

- 26) Press **F7** key several times during the boot up screen. Choose **UEFI: Built-in EFI Shell**, then **Enter**.

```
Please select boot device:

Windows Boot Manager (Micron_3500_MTFDKBA1TOTGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

- 27) Under Shell> type command **fs1:**, then **Enter**.

28) Under FS1:\> type command 6EOL.nsh, then Enter.

```
BLK3: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pc
0x1,A2-83-6A-4A-01-75-A0-00)/HD(3,GPT,
00,0x7432C000)
BLK4: Alias(s):
    PciRoot(0x0)/Pci(0x1,0x0)/Pc
0x1,A2-83-6A-4A-01-75-A0-00)/HD(4,GPT,
B6800,0x3006800)
Press ESC in 1 seconds to skip startup
Shell> fs1:
FS1:\> 6EOL.nsh
```

29) Press Enter again to continue.

30) Once successfully updated, the screen should now look like this.

```
FS1:\> 6EOL.nsh
FS1:\> rem For M9538A Project Use
'rem' is not recognized as an internal or
script file.
FS1:\> MEManuf -EOL
Intel (R) ME Manuf Version: 15.0.45.2421
Copyright (C) 2005 - 2023, Intel Corporatic
MEManuf Operation Passed
FS1:\> _
```

31) Press the power button to shut down the unit and then power on the unit again.

32) Press F7 key several times during the boot up screen. Choose UEFI: Built-in EFI Shell, then Enter.

```
Please select boot device:
Windows Boot Manager (Micron_3500_MTFDKBA1TOTGD)
UEFI: Built-in EFI Shell
UEFI: USB, Partition 1 ( USB)
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

33) Under Shell> type command fs1:, then Enter.

34) Under FS1:\> type command 7FWCheck.nsh, then Enter.

```
BLK3: Alias(s):  
    PciRoot(0x0)/Pci(0x1,0x0  
0x1,A2-83-6A-4A-01-75-A0-00)/HD(3  
00,0x7432C000)  
BLK4: Alias(s):  
    PciRoot(0x0)/Pci(0x1,0x0  
0x1,A2-83-6A-4A-01-75-A0-00)/HD(4  
B6800,0x3006800)  
Press ESC in 5 seconds to skip sta  
Shell> fs1:  
FS1:\> 7FWCheck.nsh
```

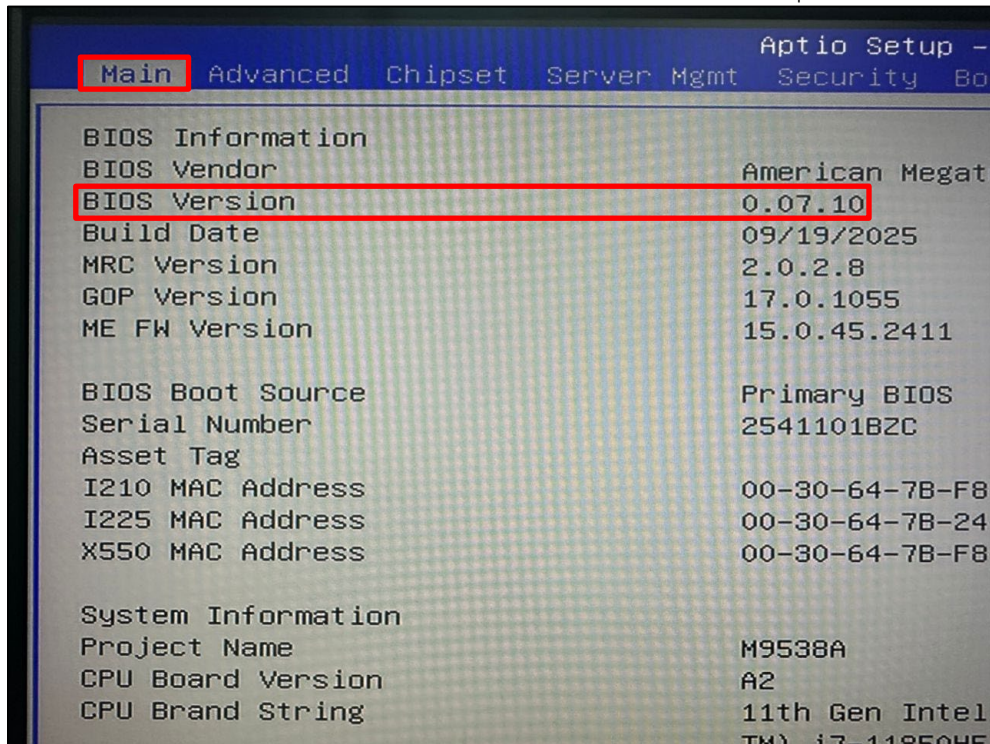
35) Once successfully updated, the screen should now look like this.

```
Shell> fs1:  
FS1:\> 7FWCheck.nsh  
FS1:\> rem For M9538A Project Use  
'rem' is not recognized as an inter  
script file.  
FS1:\> FwCheck.efi 0x50 0x51  
ADLINK Firmware Health Reporter [Ver  
  
FW works well.  
FS1:\> _
```

36) Press the power button to shut down the unit.

Verify BIOS Version

- 1) Restart M9538A.
- 2) Press DEL key several times during the boot up screen to enter the Setup Menu.
- 3) Ensure that the BIOS version is the correct BIOS version. Example below shows 0.07.10.



This information is subject to change
without notice.
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<http://www.keysight.com>