



FAQ / Application Note

Subject : Base on SkyLake platform(EBM-SKLU) to explain how to flash BIOS with UEFI mode

FAQ Document No: S16004

Date: 2016/2/15

Model Name. EBM-SKLU

Rev. A1

Category: ☐General ☐H/W ☒S/W ☐Others, 寫小分類

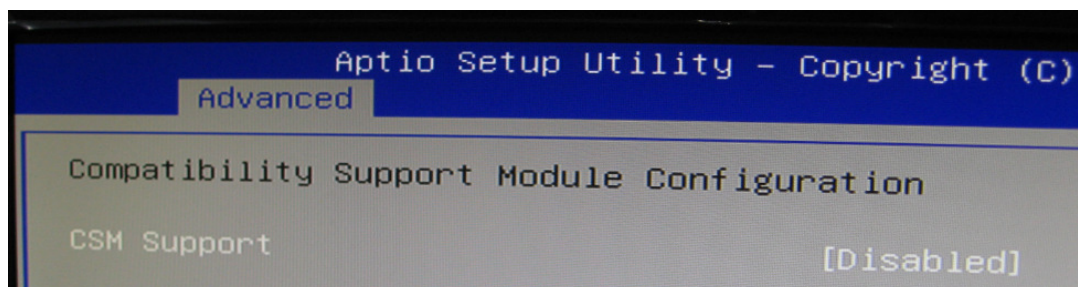
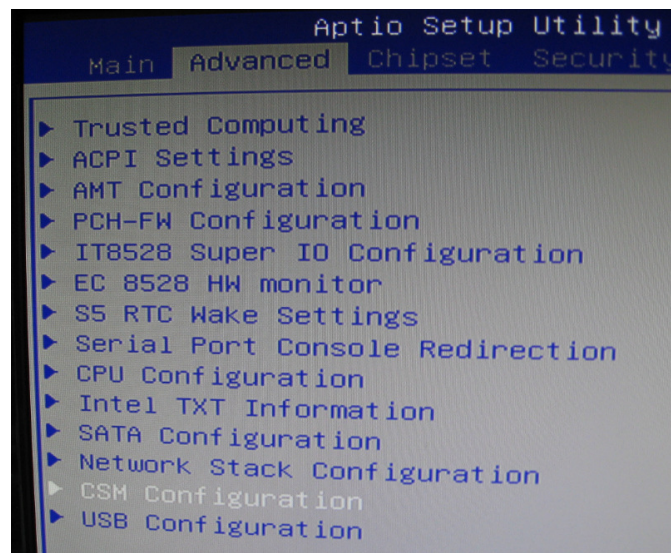
Purpose:

SkyLake and further products will be set UEFI as BIOS default, CSM will be disabled, but the BIOS will not include EFI shell.

As the result, this document will guide the customer how to add the EFI shell for flashing the BIOS and how to flash BIOS with UEFI mode by using AMI tool(Afuefix64.efi for UEFI).

Before flashing BIOS, we have to check what BIOS mode in your board.

If the BIOS is set UEFI as default, the CSM support will be set as [Disabled] as below.



Avalue Technology Inc.

7F, 228, Lian-Cheng Road, Chung Ho City, Taipei, Taiwan R.O.C.

www.avalue.com.tw
sales@avalue.com.tw
Tel: +886-2-82262345
Fax: +886-2-82262777

Avalue Europe
sales.europe@avalue.com.tw
Tel: +45-7025-0310
Fax: +45-4975-5026

Avalue USA
sales@avalue-usa.com
Tel: +1-732-578-0200
Fax: +1-732-578-0250

BCM Advanced Research
BCMSales@bcmcom.com
Tel: +1-949-470-1888
Fax: +1-949-470-0971

Avalue China
sales.china@avalue.com.cn
Tel: +86-21-5426-3399
Fax: +86-21-6495-0370



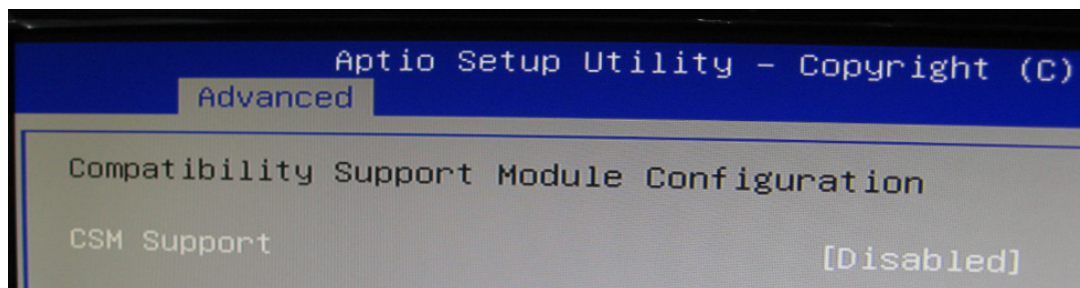
If so, please flash the BIOS according to the following “UEFI instruction”.

If not, please set the CSM support as [Disabled].

Or, refer to the “CSM instruction” if you want to flash BIOS with CSM mode (please refer to the document “S16005” -- Base on SkyLake platform(EBM-SKLU) to explain how to flash BIOS with CSM mode).

UEFI instruction:

1. After make sure the BIOS is set UEFI as default(CSM support is set as [Disabled]), please prepare a bootable USB stick.

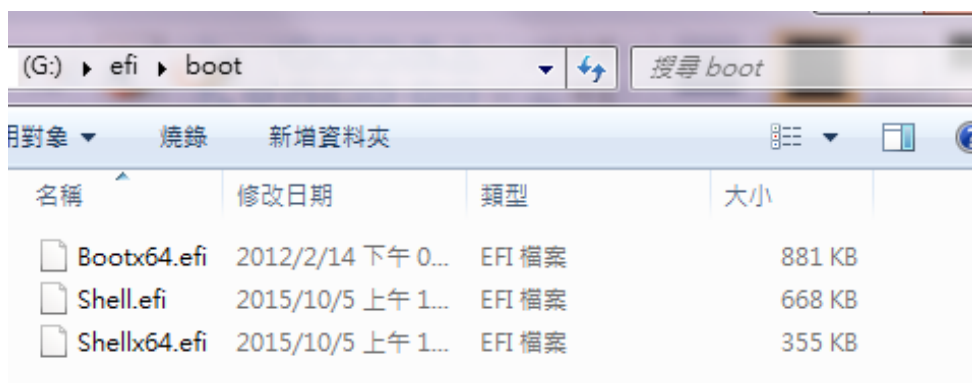


2. The bootable USB stick format must be FAT32(the flash tool can't support USB NTFS, because of Microsoft policy).

3. Because the BIOS has be removed EFI shell, so we need to add the EFI shell into the bootable USB stick.

Copy the following three files into your bootable USB stick, the path is “USB stick:\efi\boot”.

(The “EFI” folder should be involved into BIOS flashing package, if not, please consult your AE)



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www.avalue.com.tw
sales@avalue.com.tw
Tel: +886-2-82262345
Fax: +886-2-82262777

Avalue Europe
sales.europe@avalue.com.tw
Tel: +45-7025-0310
Fax: +45-4975-5026

Avalue USA
sales@avalue-usa.com
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Fax: +1-732-578-0250

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Tel: +1-949-470-1888
Fax: +1-949-470-0971

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4. Copy BIOS file you want to flash into your bootable stick.

Usually, Avalue has packaged a BIOS folder, which involves BIOS file, autoexec file(update.nsh) and flash tool.

USB DISK (G:) ▶ BSKLUR10

新增資料夾

名稱	修改日期	類型	大小
afuefix64.efi	2015/6/24 上午 1...	EFI 檔案	368 KB
BSKLUR10.bin	2016/1/26 下午 0...	IZArc BIN Archive	16,384 KB
Update.nsh	2016/2/15 下午 0...	NSH 檔案	1 KB

So, we should only copy the BIOS folder into your bootable USB stick.

Therefore, your bootable USB stick should has two folder at least, one is “EFI”, another is BIOS Folder as below.

USB DISK (G:) ▶

新增資料夾

名稱	修改日期	類型
BSKLUR10	2016/2/15 下午 0...	檔案資料夾
EFI	2016/2/15 下午 0...	檔案資料夾

5. Plug the bootable USB stick into the board you want to flash, and turn on the board, the board will boot up with EFI shell as below. Now we can start to flash the BIOS.

```

EFI Shell version 2.40 [5.11]
Current running mode 1.1.2
Device mapping table
fs0  :Removable HardDisk - Alias hd7d0b blk0
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0x3F,0x1E3
BFC1)
blk0  :Removable HardDisk - Alias hd7d0b fs0
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0x3F,0x1E3
BFC1)
blk1  :Removable BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)

Press ESC in 3 seconds to skip startup.nsh, any other key to continue. _

```

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www.avalue.com.tw
sales@avalue.com.tw
Tel: +886-2-82262345
Fax: +886-2-82262777

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Fax: +45-4975-5026

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Fax: +1-732-578-0250

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Avalue China
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Tel: +86-21-5426-3399
Fax: +86-21-6495-0370



6. If we have not plugged the other bootable device such as HDD or DVD except the USB stick.
We should see a device named “fs0”, which should be our bootable USB stick.
So, please key in “fs0:” for enter into the bootable USB stick as below.

```
EFI Shell version 2.40 [5.11]
Current running mode 1.1.2
Device mapping table
  fs0      :Removable HardDisk - Alias hd7d0b blk0
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0
BFC1)
  blk0     :Removable HardDisk - Alias hd7d0b fs0
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0
BFC1)
  blk1     :Removable BlockDevice - Alias (null)
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:_
```

```
Device mapping table
  fs0      :Removable HardDisk - Alias hd7d0b blk0
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0
BFC1)
  blk0     :Removable HardDisk - Alias hd7d0b fs0
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/HD(1,MBR,0x05E37750,0
BFC1)
  blk1     :Removable BlockDevice - Alias (null)
           PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:
fs0:\> _
```

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7. Then, enter into the BIOS folder to execute “update”.

```
Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:

fs0:\> cd bsklur10

fs0:\BSKLUR10> update_
```

8. The autoexec file “update.nsh” will be executed.

(If there is no any autoexec file, please key in the command “Afuelfix64.efi BIOS_Filename.bin /P /B /N /X”

Ex: the BIOS I demonstrated is “BSKLUR10.bin”,

so the command is “Afuelfix64.efi **BSKLUR10.bin** /P /B /N /X”)

```
Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:

fs0:\> cd bsklur10

fs0:\BSKLUR10> update
update> Afuelfix64.efi BSKLUR10.bin /P /B /N /X

+-----+
|               AMI Firmware Update Utility  v5.08.00               |
|   Copyright (C)2015 American Megatrends Inc. All Rights Reserved.   |
+-----+

Reading flash ..... done
- ME Data Size checking . ok
- FFS checksums ..... 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

fs0:\BSKLUR10> _
```

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Tel: +1-732-578-0200
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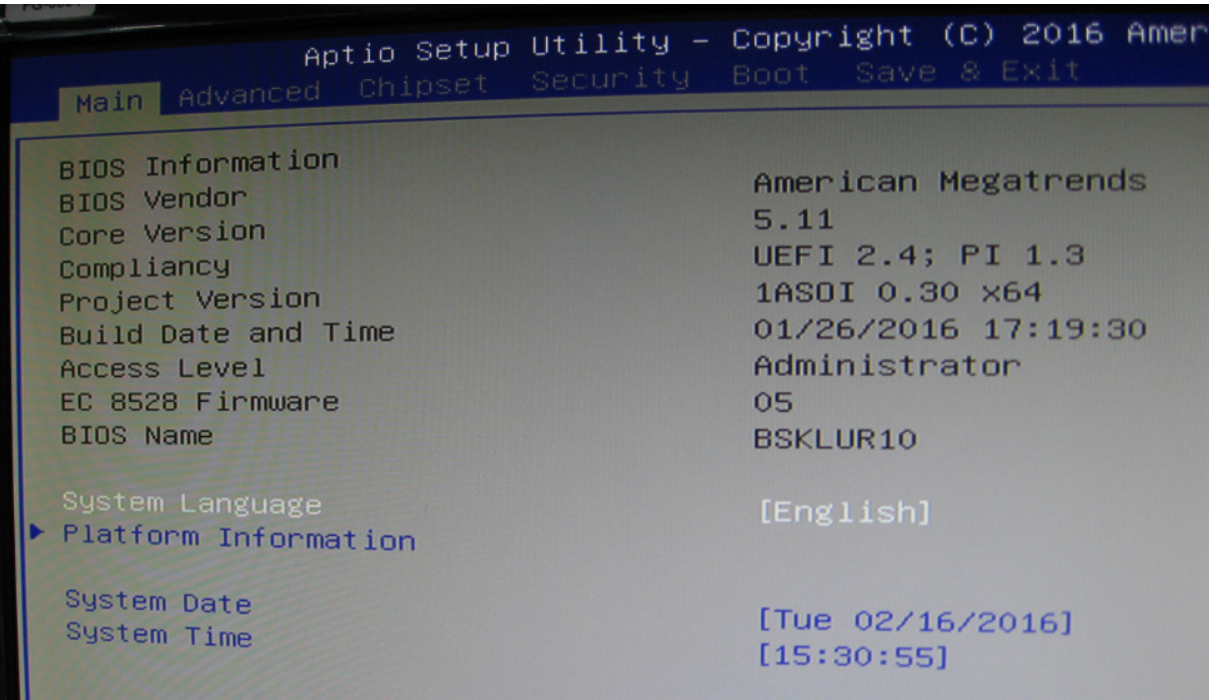
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Tel: +1-949-470-1888
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9. After the BIOS has been flashed completely, please **power off** the board, and the power on it to check whether the BIOS has been flashed successfully.



AE :Fox

Date :2016/2/15