

## How to flash BIOS:

1. Firstly, you need to create a DOS-bootable USB-stick. Please refer to following link to create your own DOS-bootable USB-stick.

<http://www.cybernetman.com/kb/index.cfm/fuseaction/home.viewArticles/articleId/162>

2. Download the BIOS FW and extract the files.
3. Copy the extracted BIOS file into the DOS-bootable USB-stick.
4. Set J\_Flash2 Jumper, short pins 2&3.

### 4.8.5 Flash Descriptor Security Override Jumper

The flash descriptor security override jumper (J\_FLASH1) allows to enable or disable the ME firmware update. Refer to Table 4-4 and Figure 4-17 for the jumper location and settings.

Setting	Description
Short 1-2	Disabled (default)
Short 2-3	Enabled

Table 4-4: Flash Descriptor Security Override Jumper Settings

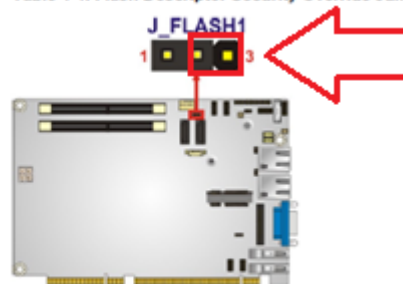


Figure 4-17: Flash Descriptor Security Override Jumper Location

5. Set the BIOS Switch (SW\_BIOS1) to BIOS1 settings.

### 4.8.3 PCIe x4 Channel Mode Setup

The user can select to use either one PCIe x4 slot or four PCIe x1 slots on the backplane via the BIOS switch. Refer to below table for the BIOS switch settings.

Setting	Description
1-2 (BIOS1)	Sets the PCIe x4 link width as four PCIe x1 slots (default)
2-3 (BIOS2)	Sets the PCIe x4 link width as one PCIe x4 slot

Table 4-2: BIOS Switch Settings

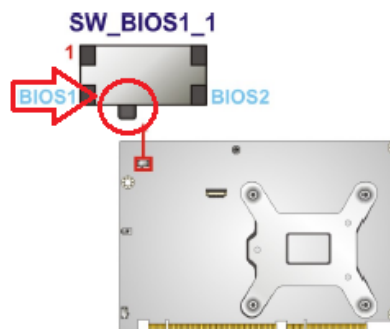
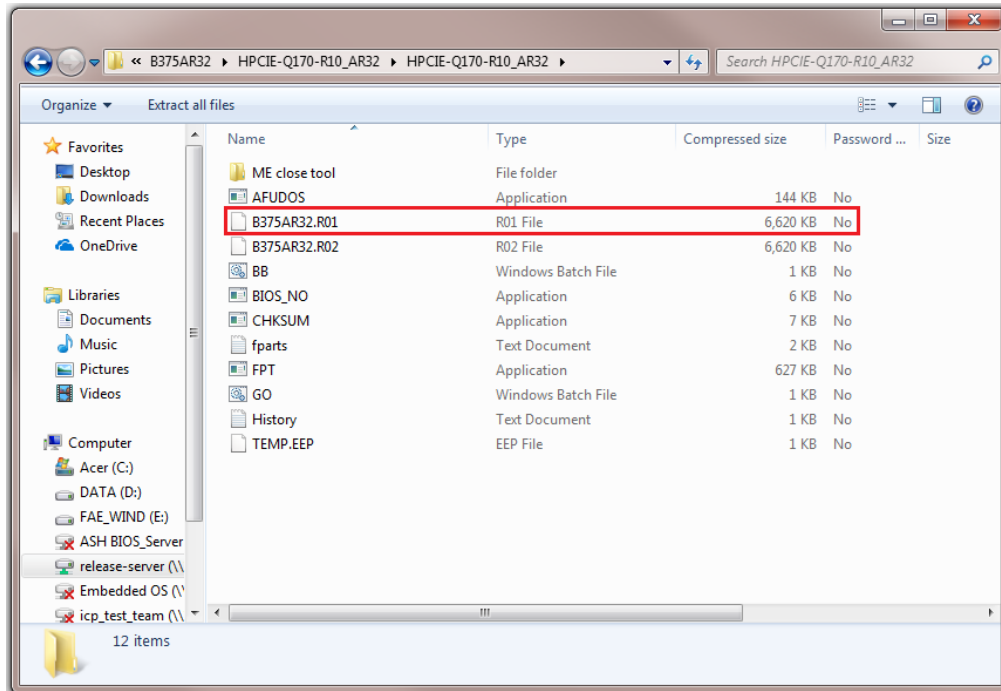


Figure 4-16: BIOS Switch Location

6. Boot the system to DOS-bootable USB-stick.
7. When system boot into the DOS, go to the folder where you have saved the BIOS files. Then please type command "GO ME". Wait for the BIOS update to complete and never interrupt the BIOS update (NEVER!!! turn-off or reset the system).



➤ Steps 5~7 will update the BIOS1 settings with the B375AR32.R01 bin file.

8. After BIOS update completes please pull off the power cord of the PSU until LED indicator off and plug on the power cord again.



9. During the system was at an off-state, please apply a "CLEAR CMOS". It can be achieved into different ways:
  - a. Remove CMOS battery from the SBC and then short pins 1 & 2 for 5 seconds. Then return the CMOS battery into the system.
  - b. Locate the J\_CMOS1 connectors and short pins 2 & 3 for 5 seconds. Then return the jumper to pins 1 & 2 (Default).

- Set the BIOS Switch (SW\_BIOS1) to BIOS2 settings.

#### 4.8.3 PCIe x4 Channel Mode Setup

The user can select to use either one PCIe x4 slot or four PCIe x1 slots on the backplane via the BIOS switch. Refer to below table for the BIOS switch settings.

Setting	Description
1-2 (BIOS1)	Sets the PCIe x4 link width as four PCIe x1 slots (default)
2-3 (BIOS2)	Sets the PCIe x4 link width as one PCIe x4 slot

Table 4-2: BIOS Switch Settings

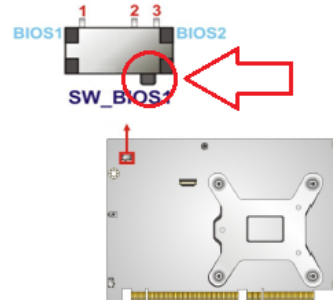
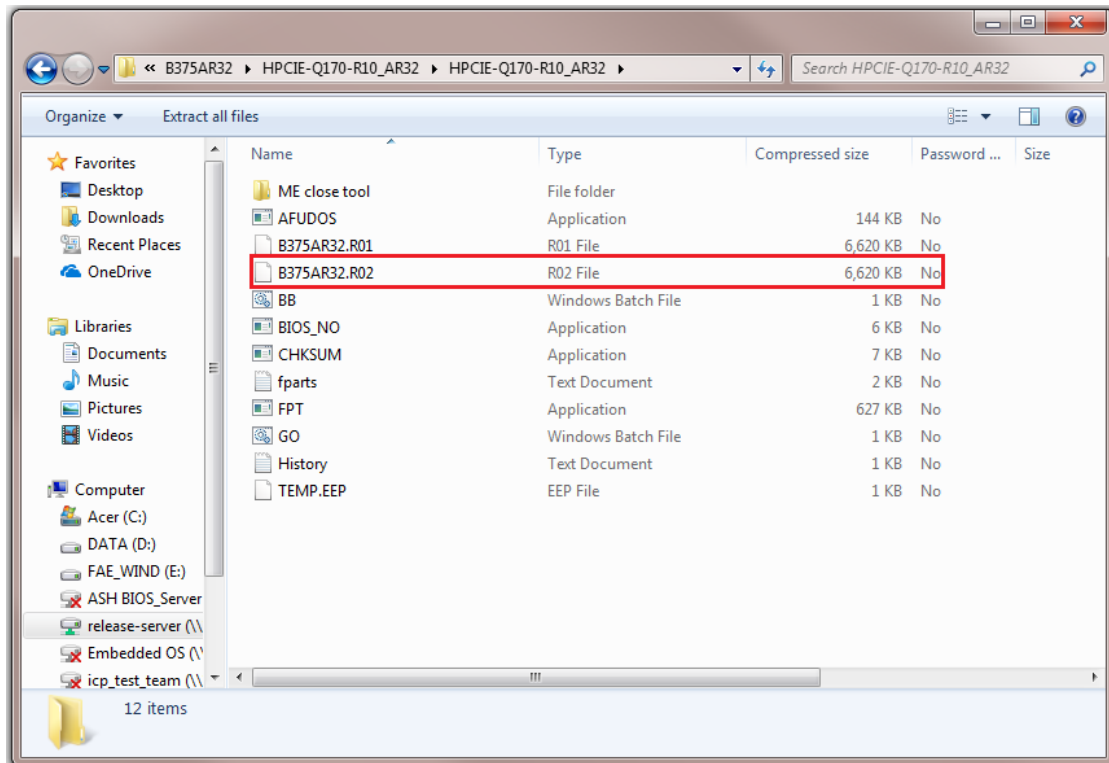


Figure 4-16: BIOS Switch Location

- Boot the system to DOS-bootable USB-stick.
- When system boot into the DOS, go to the folder where you have saved the BIOS files. Then please type command "GO ME". Wait for the BIOS update to complete and never interrupt the BIOS update (NEVER!!! turn-off or reset the system).



- Steps 10~12 will update the BIOS2 settings with the B375AR32.R02 bin file.

13. After BIOS update completes please pull off the power cord of the PSU until LED indicator off and plug on the power cord again.



14. During the system was on an off-state, please apply a "CLEAR CMOS". It can be achieved into different ways:
- Remove CMOS battery from the SBC and then short pins 1 & 2 for 5 seconds. Then return the CMOS battery into the system.
  - Locate the J\_CMOS1 connectors and short pins 2 & 3 for 5 seconds. Then return the jumper to pins 1 & 2 (Default).

### **Please Note:**

To switch BIOS1 to BIOS2 or BIOS2 to BIOS1 successfully, please follow the steps below.

**Step 1:** Unplug the system power cord.

**Step 2:** Switch BIOS1 to BIOS2 or BIOS2 to BIOS1 by moving the BIOS switch to BIOS1 or BIOS2 position as shown in **Figure 4-16**.

**Step 3:** Remove the on-board battery, and then reinstall it.

**Step 4:** Clear CMOS by pressing the clear CMOS button for three seconds or more.

**Step 5:** Perform the system booting.



#### **NOTE:**

The user can check which BIOS is being used from the **BIOS Number** item in the **Main BIOS menu (BIOS Menu 1)**.