1.1 Equipment and tools list

Follow the instruction to prepare Equipment and tools list:

1. Environment:
   I. Mother board: MP30-AR0-00 version 1.1
   II. Bsp firmware version: 2.4 (build 01.16.00.00. 2015/06/11)
   III. uBoot firmware version: 1.16.00-F06a (uart0)
   IV. BMC firmware version: 3.18 (SSIF not ready)
   V. Ubuntu OS image version: 14.04 LTS (GNU/Linux 3.12.0 aarch64)

2. Null Modem cable (Gigabyte Part No. 25CF8-03K520-L5R)

3. USB to Serial adapter ($419 NTD)
   http://24h.pchome.com.tw/prod/DCAX06-A80421348?q=/S/DCAX8T

4. Debug console tooling (Gigabyte Part No.CGK-8B0031-01-539)

5. Putty Application (Free)
   http://www.windows8downloads.com/win8-putty.html
6. Win32 Disk Imager v0.95 (Free)
   http://sourceforge.net/projects/win32diskimager/

7. 7-Zip (Free)

8. Gigabyte Utility  http://download.gigabyte.us/FileList/Utility/server_system_utility_command_line_utility_0.2x.zip


10. Storage for OS recovery (SD card/USB memory stick/SATA hard disk)
1.2 How to make Ubuntu OS image to SD card

Follow the instruction below for Power on the system:

1. Prepare Target storage (SD card/USB memory stick/SATA hard disk) the capacity need big than 4 Giga-bytes
2. Download the OS image (ubuntu-1404-v2.img.xz) from Gigabyte website:
   - MP30-AR0: [http://download.gigabyte.us/FileList/Firmware/ubuntu-1404-v2.img.xz.zip](http://download.gigabyte.us/FileList/Firmware/ubuntu-1404-v2.img.xz.zip)
   - R120-P30: [http://download.gigabyte.us/FileList/Firmware/sys_ubuntu-1404-v2.img.xz.zip](http://download.gigabyte.us/FileList/Firmware/sys_ubuntu-1404-v2.img.xz.zip)
3. Use 7-Zip to unzip the OS image then ubuntu-1404-v2.img will be created (The File Size around 984 MB).
4. Use Quick format to empty and unlock the Target storage (SD card or USB memory stick)
5. Run the Win32 Disk Imager application and mark sure the Target Device is correct (SD card or USB memory stick).
6. Load the OS image then click the “Write” Button.
7. Then click the “Yes” when Confirm overwrite Box appear.
8. Ejection the Target storage after finish the OS image recovery.
1.3 How to Power on the system

Follow the instruction below for Power on the system:

1. Installing the DDR3 Memory

   When only one DIMM is used, it must be populated in memory slot0 first. Memory populated sequence must be followed with slot0/slot1. System will not boot normally with incorrect populated sequence.

2. Connection for the message display

   There are two kinds of interface, one is Video Port the other one is Serial Port.

   I. Connects to Video Port (D-Sub Type VGA Connector)
   II. Connects to Serial Port (Need USB to serial and Null-Modem cable with Putty Application)

       A. Open Putty Application
       B. Setting “Serial Line” and “Speed” (You can confirm with Device Manager to get Serial Line information if you use USB to Serial adapter)
       C. The Baud rate speed needs setting as 115200 bps.
       D. Click the Open button to run the Putty application.
3. Installing the power cable of Power supply to ATX1/P12V_AUX1 connector of Mother Board.

- To meet expansion requirements, it is recommended that a power supply that can withstand high power consumption be used (500W or greater). If a power supply is used that does not provide the required power, the result can lead to an unstable or unbootable system.

ATX1/P12V_AUX1 (2x4 12V Power Connector and 2x12 Main Power Connector)
4. Waiting for BMC firmware ready until LED_BMC LED become to blink.

**LED_BMC (BMC Firmware Readiness LED)**

5. Push the Power Switch (SW_PWR) to power on the system.
6. Wait for Booting message as below.
1.4 How to get BMC DHCP IP address via debug console

Follow the instruction below for get DHCP IP of Management Lan via debug console:

1. Installing the DDR3 Memory

   When only one DIMM is used, it must be populated in memory slot0 first. Memory populated sequence must be followed with slot0/slot1. System will not boot normally with incorrect populated sequence.

2. Connects to the JTAG_BMC with debug console tooling (debug console PIN define are 1:Vcc/2:Rx/3:Tx/4:GND)
3. Installing the power cable of Power supply to ATX1/P12V_AUX1 connector of Mother Board.

- To meet expansion requirements, it is recommended that a power supply that can withstand high power consumption be used (500W or greater). If a power supply is used that does not provide the required power, the result can lead to an unstable or unbootable system.

**ATX1/P12V_AUX1 (2x4 12V Power Connector and 2x12 Main Power Connector)**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>+12V</td>
</tr>
<tr>
<td>4</td>
<td>+12V</td>
</tr>
</tbody>
</table>
4. Wait for BMC firmware Booting message as below then you can get DHCP IP address of Management Lan as “10.1.27.24”
1.5 How to entry uBoot shell environment.

Follow the instruction below for entry uBoot Shell environment:

1. Please follow “1.3 How to Power on the system” to power on the mother board.

2. When system start UBOOT, please Hit any key to stop autoboot and entry uBoot shell environment.
1.6 How to booting in OpenLinux (Built-in)

Follow the instruction below for OpenLinux booting:

1. Please follow “1.3 How to Power on the system” to power on the mother board.

2. The system wills entry OpenLinux automatically if no any boot devices exist. (ex. SD card/USB memory stick/SATA hard disk)

3. Enter the following values for login:
   - Username: root
   - Password: root
1.7 How to connect to Web console of BMC

Follow the instruction below for connects Web Console of BMC via Management Lan:

1. Connects RJ45 LAN cable to Management Lan Port

2. Please follow “1.4 How to get BMC DHCP IP address via debug console” to get DHCP IP address of Management Lan.

3. Open a web browser and type in your identified IP (DHCP IP address of Management Lan). The IP address can be found using your DHCP server.
4. A dialog box prompts you to enter Username and Password.

5. Enter the following values:
   Username: admin
   Password: password

6. Then you can find some information as below.
1.8 How to confirm uBoot/BMC firmware version

Follow the instruction below to get firmware version information:

There are three kind of firmware as below:

1. About Bsp firmware:
   A. Please follow “1.3 How to Power on the system” to power on the mother board.
   B. Get Bsp firmware version and build day as below:

2. About uBoot firmware
   A. Please follow “1.3 How to Power on the system” to power on the mother board.
   B. Get uBoot firmware version as below:
3. BMC firmware

There are two ways to confirm BMC firmware information as below:

A. Use Management LAN (Out of Band)

B. Use IPMI command under OpenLinux

Follow the instruction below to get BMC Firmware version via Management LAN (Out of Band):

1. Please follow “1.7 How to connect to Web console of BMC” to entry Web console of BMC.
2. Confirm the Firmware Version of Merge point Embedded Management Software.

Follow the instruction below to get BMC Firmware version under OpenLinux OS:

1. Please follow “1.6 How to booting in OpenLinux (Built-in)” to entry OpenLinux.
2. Type “bmc-info --no-probing --driver-type=SSIF --driver-address=0x10 --driver-device=/dev/i2c-1 --get-device-id --debug” to get device id from IPMI.
1.9 How to issue a IPMI command under Openlinux (Build in)

Follow the instruction below for onboard firmware update:

1. Please follow “1.6 How to booting in OpenLinux (Built-in)” to enter OpenLinux.

2. Booting into OpenLinux and type “bmc-info --no-probing --driver-type=SSIF --driver-address=0x10 --driver-device=/dev/i2c-1 --get-device-id --debug” to get device id from IPMI.
PS: Pleases make sure your BMC firmware is latest version and include SSIF function support if you find a “Internal System error” as below.

1.10 How to confirm add-in card devices

Follow the instruction below for Add-In device confirm:

1. Pleases follow “1.14 Booting into Ubuntu OS with SD card ” to boot into Ubuntu OS.
2. Connects the LAN cable to RJ-45 LAN Port. (In this case that we connect as below LAN port that marked by red box).
3. List all onboard LAN information use “ifconfig –a”
4. Enabled DHCP service to get DHCP IP address as below:
   I. Enabled eth14 use “sudo ifconfig eth14 up”.
   II. Enabled DHCP service for eth14 use “sudo dhclient eth14”.
   III. Used “ifconfig” to confirm result as below

5. Download lspci tools kit use “sudo apt-get install pciutils”

6. Used “lspci –v” to confirm add-in device.
1.11 How to get sensor information

There are two way as below to get onboard sensor information:

A. Connects to Web console of BMC via Management LAN

B. Booting into Ubuntu OS to get sensor information

Follow the instruction below for get onboard sensor information via Management LAN (Out of Band):

1. Please follow “1.7 How to connect to Web console of BMC” to entry Web console of BMC.
2. Push the Power Switch (SW_PWR) to power on the system.
3. Waiting around 20 seconds for sensor ready.
4. Click the “Sensor Monitor” of Merge point Embedded Management Software.

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LED_STA</td>
<td>System status LED</td>
</tr>
<tr>
<td>2</td>
<td>USB2_MLAN</td>
<td>BMC Management LAN port (top) / USB 2.0 ports (bottom)</td>
</tr>
<tr>
<td>3</td>
<td>VGA1_COM1</td>
<td>Serial port (top) / VGA port (bottom)</td>
</tr>
<tr>
<td>4</td>
<td>SFP+_1_2</td>
<td>10G Fiber LAN ports</td>
</tr>
<tr>
<td>5</td>
<td>LAN1-2</td>
<td>LAN ports</td>
</tr>
<tr>
<td>6</td>
<td>S0_MR</td>
<td>Power button/LED</td>
</tr>
<tr>
<td>7</td>
<td>SW14</td>
<td>ID switch button/LED</td>
</tr>
<tr>
<td>8</td>
<td>CPU_FAN</td>
<td>CPU fan connector</td>
</tr>
<tr>
<td>9</td>
<td>DIMM_P0_A0</td>
<td>Channel 1 slot 0</td>
</tr>
<tr>
<td>10</td>
<td>DIMM_P0_A1</td>
<td>Channel 1 slot 1</td>
</tr>
<tr>
<td>11</td>
<td>DIMM_P0_B0</td>
<td>Channel 2 slot 0</td>
</tr>
<tr>
<td>12</td>
<td>DIMM_P0_B1</td>
<td>Channel 2 slot 1</td>
</tr>
<tr>
<td>13</td>
<td>CPU0</td>
<td>ARM CPU</td>
</tr>
<tr>
<td>14</td>
<td>P12V_AUX1</td>
<td>4-pin power connector</td>
</tr>
<tr>
<td>15</td>
<td>ATX1</td>
<td>24-pin main power connector</td>
</tr>
<tr>
<td>16</td>
<td>SYS_FAN1</td>
<td>System fan connector1</td>
</tr>
<tr>
<td>17</td>
<td>FP_1</td>
<td>Front panel header (for Server system)</td>
</tr>
<tr>
<td>18</td>
<td>SYS_FAN2</td>
<td>System fan connector2</td>
</tr>
<tr>
<td>19</td>
<td>PMBUS</td>
<td>PMBus header</td>
</tr>
<tr>
<td>20</td>
<td>CLR_CMOS</td>
<td>Clear CMOS jumper</td>
</tr>
<tr>
<td>21</td>
<td>SYS_FAN3</td>
<td>System fan connector3</td>
</tr>
<tr>
<td>22</td>
<td>BP_1</td>
<td>HDD back plane board header</td>
</tr>
<tr>
<td>23</td>
<td>CASE_OPEN</td>
<td>Case open intrusion alert header</td>
</tr>
<tr>
<td>24</td>
<td>IFMB</td>
<td>IFMB connector</td>
</tr>
<tr>
<td>25</td>
<td>SYS_FAN4</td>
<td>System fan connector4</td>
</tr>
<tr>
<td>26</td>
<td>SATA0_DOM0</td>
<td>SATA port 3 DOM support jumper</td>
</tr>
<tr>
<td>27</td>
<td>SATA0/1D3</td>
<td>SATA3 6Gbit connectors</td>
</tr>
<tr>
<td>28</td>
<td>PCIe_2</td>
<td>PCI Express x16 slot</td>
</tr>
<tr>
<td>29</td>
<td>BAT</td>
<td>Battery socket</td>
</tr>
<tr>
<td>30</td>
<td>PCIe_1</td>
<td>PCI Express x16 slot</td>
</tr>
<tr>
<td>31</td>
<td>LED_BMC</td>
<td>BMC firmware readiness LED</td>
</tr>
<tr>
<td>32</td>
<td>DIMM_P0_C0</td>
<td>Channel 3 slot 0</td>
</tr>
<tr>
<td>33</td>
<td>DIMM_P0_C1</td>
<td>Channel 3 slot 1</td>
</tr>
<tr>
<td>34</td>
<td>DIMM_P0_D0</td>
<td>Channel 4 slot 0</td>
</tr>
<tr>
<td>35</td>
<td>DIMM_P0_D1</td>
<td>Channel 4 slot 1</td>
</tr>
</tbody>
</table>
Follow the instruction below for get onboard sensor information under Ubuntu OS:

Not ready yet.
1.12 About System event log

There are two ways as below to read/Clear System Event Log:

A. Connect to Web console of BMC via Management LAN
B. Booting into Ubuntu OS to get System Event Log information

Follow the instruction below for read Sensor Event Log information via Management LAN (Out of Band):

1. Please follow “1.7 How to connect to Web console of BMC” to entry Web console of BMC.
2. Click the “System Event Log” of Merge point Embedded Management Software.

Follow the instruction below for read/Clear System Event Log information under Ubuntu OS:

Not ready yet.
1.13 How to enabled vKVM function

Follow the instruction below for vKVM function enabled:

1. Please follow “1.7 How to connect to Web console of BMC” to entry Web console of BMC.
2. Click the “vKVM & vMedia” of Merge point Embedded Management Software.
3. Click the “Launch Java vKVM Viewer” of Merge point Embedded Management Software.
4. Click the “Run” button of Warning –Security Box.
5. Selects the “Power on System” of Video Viewer to do the system Power on.
6. You can remote control the system via vKVM function now.
1.14 Booting into Ubuntu OS with SD card

Follow the instruction below for Booting into Ubuntu OS with SD card:

1. Please follow “1.2 How to make Ubuntu OS image to SD card” to make the SD card include Ubuntu OS.
2. Inserted the SD card into SD card socket.
3. Please follow “1.3 How to Power on the system” to power on the mother board.
4. The MMC device 0 will display Partition Map information as below if SD card exist.
5. The default Username and Password as following values:

   Username: ubuntu
   Password: ubuntu
2.1 How to update onboard firmware

Follow the instruction below for onboard firmware update:

There are three kind of firmware as below ad have different way to update:

1. Bsp firmware
   A. Prepare a USB flash (FAT32 Format)
   B. Created a “mp30ar0” directory and put the latest version firmware image (mp30ar0_slimpro_ext_spi.bin) in here.
   C. Inserted the USB flash into USB port as below.
   D. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.
   E. Type “run upd_slimpro” to start update Bsp firmware and type “reset” to restart system after firmware update finish.

4. uBoot firmware
   A. Prepare a USB flash (FAT32 Format)
   B. Created a “mp30ar0” directory and put the latest version firmware image (uboot_os.bin) in here.
C. Inserted the USB flash into USB port as below.

```
<table>
<thead>
<tr>
<th>Back Panel Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
</tr>
<tr>
<td>②</td>
</tr>
<tr>
<td>③</td>
</tr>
<tr>
<td>④</td>
</tr>
</tbody>
</table>

USB 2.0 Port
The USB port supports the USB 2.0 specification. Use this port for USB devices such as a USB keyboard, mouse, USB printer, USB flash drive and etc.

D. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.

E. Type “run flash_uboot_os_img” to start update uBoot firmware and the system will restart after firmware update finish.

```
run flash_uboot_os_img
```

5. BMC firmware
There are two kinds of firmware as below and have different ways to update:

1. Update under OpenLinux
   
   A. Prepare a USB flash (FAT32 Format)
   
   B. Unzip the BMC firmware package to USB flash.
   
   C. Inserted the USB flash into USB port as below.

   D. Please follow “1.6 How to booting in OpenLinux (Built-in)” to entry OpenLinux.
   
   E. Booting into OpenLinux and use “fdisk -l” command to list all Storage.
F. Type “mkdir /mnt/usb” to make a USB mount device

G. Type “mount -v -t auto /dev/sdxx /mnt/usb” to mount USB flash as “/mnt/usb”

H. Type “cd /mnt/usb” and enter the BMC firmware package directory (ex. 704_7318/utility/fwud/arm-linux/flashall.sh) that you unzip it before.

I. The system will do the power cycle reset after you type “./Flashall.sh” to update BMC firmware and finish.

1. Update via Management LAN

   Follow the instruction below for BMC Firmware update via Management LAN (Out of Band):
   
   A. Please follow “1.7 How to connect to Web console of BMC” to entry Web console of BMC.

   B. Click the “Update” of Merge point Embedded Management Software.
C. Select the BMC firmware image file (*.IMG format) then Click the “Upload” to upload BMC firmware image.

D. Confirm the status is “None” then click the “Update” button to action firmware update.

E. Wait for the status become to “100% Completed” then finish the BMC firmware update process.
## Firmware Update

### Upload

Select an image file and click upload. The upload process will terminate all other sessions including Virtual KVM Viewer and Virtual Media Session.

After the upload process is started, any attempt to refresh, logout or navigate away from the update page will reset the system.

<table>
<thead>
<tr>
<th>Firmware Type</th>
<th>Size (MB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>233,001</td>
</tr>
</tbody>
</table>

### Firmware Image

<table>
<thead>
<tr>
<th>Current Version</th>
<th>New Version</th>
<th>Preserve Configuration</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.4</td>
<td>115.19</td>
<td></td>
<td>100% Completed</td>
</tr>
</tbody>
</table>

Embroided Management Software Image has been updated successfully.
Embroided Management Software has been reset. You will not be able to access Embroided Management Software till new browser session.
Please wait and reconnect Embroided Management Software using new browser session.
2.2 How to use Gigabyte utility to scan IP address of Management LAN

Follow the instruction below to get IP address of Management LAN:

1. Download Gigabyte utility from Gigabyte Website.
   (http://download.gigabyte.us/FileList/Utility/server_system_utility_command_line_utility_0.2x.zip)
2. Unzip the utility to your hard disk then open the “GbUtiliity command line SOP” to setup environment for Gigabyte utility.
3. Dis-connects RJ45 LAN cable from Management Lan Port.

4. Type “java -jar GbUtiliity.jar IPRangeStart IPRangeEnd standard” to scan DHCP IP address.
5. Connects RJ45 LAN cable from Management LAN Port and wait around two minutes.

6. Type “java -jar GbUtiliity.jar IPRangeStart IPRangeEnd standard” to scan DHCP IP address again.
7. You will see a new IP address appears for Management LAN port as below.
2.3 How to process the OS booting under uBoot shell environment.

Follow the instruction below for processing the OS Booting under uBoot Shell environment:

1. Type the “boot” under uBoot Shell environment as below then system will process booting procedure.

```
Hit any key to stop autobo0t: 0
MP3000ROM
MP3000ROM boot
SATA1 link 0 timeout.
No drive connected
SATA1 link 1 timeout.
No drive connected
AHCI 0001.0000 32 slots 2 ports 6 Gbps 8x3 impl SATA mode
Flags: 64bit ncq on only pme fbss pio slum part ccc
SATA2 link 0 timeout.
No drive connected
SATA2 link 1 timeout.
No drive connected
```
2.4 How to input LAN MAC address to onboard LAN controller.

Follow the instruction below for input LAN MAC address of onboard LAN controller:

1. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.
2. Type “eth_addr <1st Mac Address> <LAN Port Number>” (ex. eth_addr fc:aa:14:26:6a:66 4) under uBoot shell environment to input LAN MAC address.
3. Then type “printenv ethaddr eth1addr eth2addr eth3addr” to display all LAN MAC address of onboard lan.
4. Type “saveenv” to backup LAN MAC address to SPI ROM.
2.5 **How to restore LAN MAC address to onboard LAN controller.**

Follow the instruction below for restore all LAN MAC address of onboard LAN controller:

1. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.
2. Type “Run load_env_default” under uBoot shell environment to restore LAN MAC address for all onboard LAN controller.
2.6 How to install IPMI package under Ubuntu OS

Follow the instruction below for install IPMI package under Ubuntu OS:

1. Please follow “1.14 Booting into Ubuntu OS with SD card” to boot into Ubuntu OS.

2. Connects the LAN cable to RJ-45 LAN Port. (In this case that we connect as below LAN port that marked by red box).

3. List all onboard LAN information use “ifconfig –a”

4. Enabled DHCP service to get DHCP IP address as below:
   I. Enabled eth14 use “sudo ifconfig eth14 up”.
   II. Enabled DHCP service for eth14 use “sudo dhclient eth14”.
   III. Used “ifconfig” to confirm result as below
5. Download lspci tools kit use “sudo apt-get install freeipmi-tools”

6. Type “bmc-info --no-probing --driver-type=SSIF --driver-address=0x10 --driver-device=/dev/i2c-1 --get-device-id --debug” to get device id from IPMI.
2.7 How to recovery U-Boot via SD card

Follow the instruction below for recovery uBoot via SD card:

1. Prepare a SD card (SDHC type)
2. Download the latest version uBoot image (uBoot_os.bin) from the weblink:
3. Use Quick format to empty and unlock the Target storage (SD card or USB memory stick)
4. Run the Win32 Disk Imager application and mark sure the Target Device is correct (SD card).
5. Load the uBoot image (uBoot_os.bin) then click the “Write” Button.
6. Then click the “Yes” when Confirm overwrite Box appear.

7. Ejection the Target storage after finish the uBoot image recovery.
8. Prepare a USB flash (FAT32 Format)
9. Created a “mp30ar0” directory and put the latest version firmware image (uboot_os.bin) in here.

10. Inserted the USB flash into USB port as below.
11. Inserted the SD card into SD card socket and short the jumper 1&4 of APM_STRAP1 pin head as below to entry SD card boot mode.

12. Pleases follow “1.3 How to Power on the system” to power on the mother board.

13. The LED3 will blink if no SD card Present.
14. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.

15. Type “run flash_uboot_os_img” to start update uBoot firmware and the system will restart after firmware update finish.
2.8 How to use Easy BIOS to update onboard firmware

Follow the instruction below for uBoot update via Management LAN (Out of Band).

1. Download the uBoot image (RBU format) from the weblink:

2. Please follow “2.2 How to use Gigabyte utility to scan IP address of Management LAN” to get DHCP IP Address for Management LAN port.

3. Open a web browser and type in your identified IP (DHCP IP address of Management Lan). The IP address can be found using your DHCP server.

4. A dialog box prompts you to enter Username and Password.

5. Enter the following values:
   
   Username: admin
   Password: password

6. Then you can found some information as below.

7. Click the “Update” of Merge point Embedded Management Software.
8. Select the firmware Type as “ROM” and select first uBoot firmware image file (RBU format) then click the “Upload” to upload uBoot firmware image. (There are two RBU image need to update)

9. Click the “Update” button to update 1st uBoot image.

10. Wait for the status become to “100% Completed” and display “ROM Part1 firmware image has been updated successfully,”
please upload ROM Part2 and update” message.

11. Select the second uBoot firmware image file (RBU format) then click the “Upload” to upload uBoot firmware image. (There are two RBU image need to update)
2.9 **How to set-up Tftp Server.**

Follow the instruction below for Tftp Server setting.

1. Please install Tftp application to your PC or notebook with Windows 7 64bits OS.
2. Connect the LAN cable from your PC or Notebook to RJ45 LAN Port. (In this case that we connect as below LAN port that marked by red box).

3. Set Static IP address as “192.168.1.1” to your LAN controller.
4. For this example that we set the IP address of “Realtek PCIe LAN” is “192.168.1.1”

5. Create a Directory and put some file in here as below.
6. Set the “Current Directory” and Server interface as below:

7. Please follow “1.5 How to entry uBoot shell environment” to entry uBoot shell environment.

8. Type “ping 192.168.1.1” to know the Tftp is alive or not.
APPENDIX1 Add-in card support list

Not ready yet.