aigale
海联达

M001 EVB User Guide

(PCB Ver:I1)

V0.1

2016/05/12
Kai. Wu

Relative Software

Application Software

•FTDI VCP Drivers (FT2232D)
•Libusb-win32-bin-1.2.6.0
•Cygwin

Set-up Procedure

1. Download FTDI VCP Drivers (FT2232D)
2. Download Libusb-win32-bin-1.2.6.0
3. Set Up EVB for Windows
4. Install FTDI VCP Drivers
5. Install Libusb-win32-bin-1.2.6.0
6. Install Cygwin
7. Insert file “OpenOCD.zip”
8. Burning MCU Image with normal firmware
9. Run WIFI Normal Driver
10. Burning MCU Image with MFG firmware
11. Run WIFI MFG tool

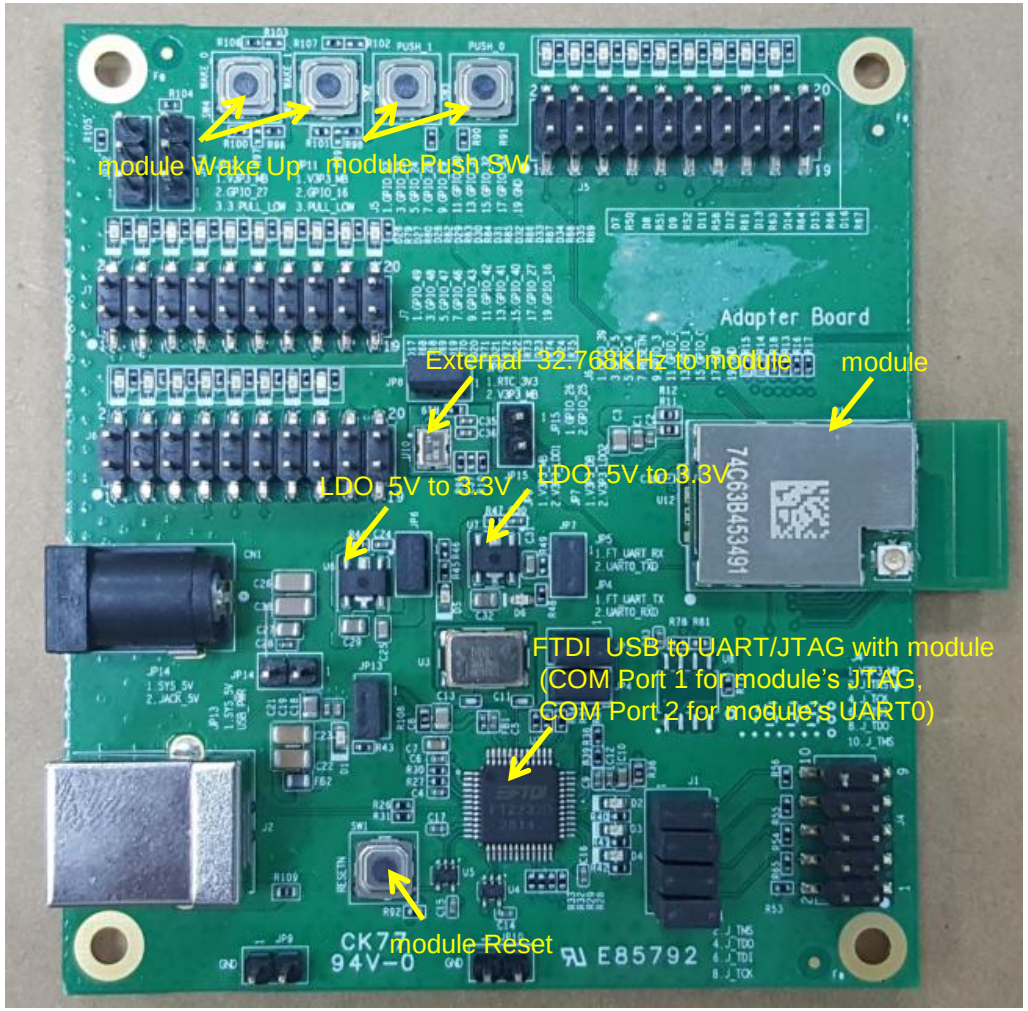
Relative Hardware

EVB Power Supply Option:

1. USB B-type 5V Input
2. Power Jack 5V Input
   (If the USB B-type driving force shortage)

Power Jack 5V Input →

USB B-type 5V Input →



1. Download FTDI VCP Drivers (FT2232D)

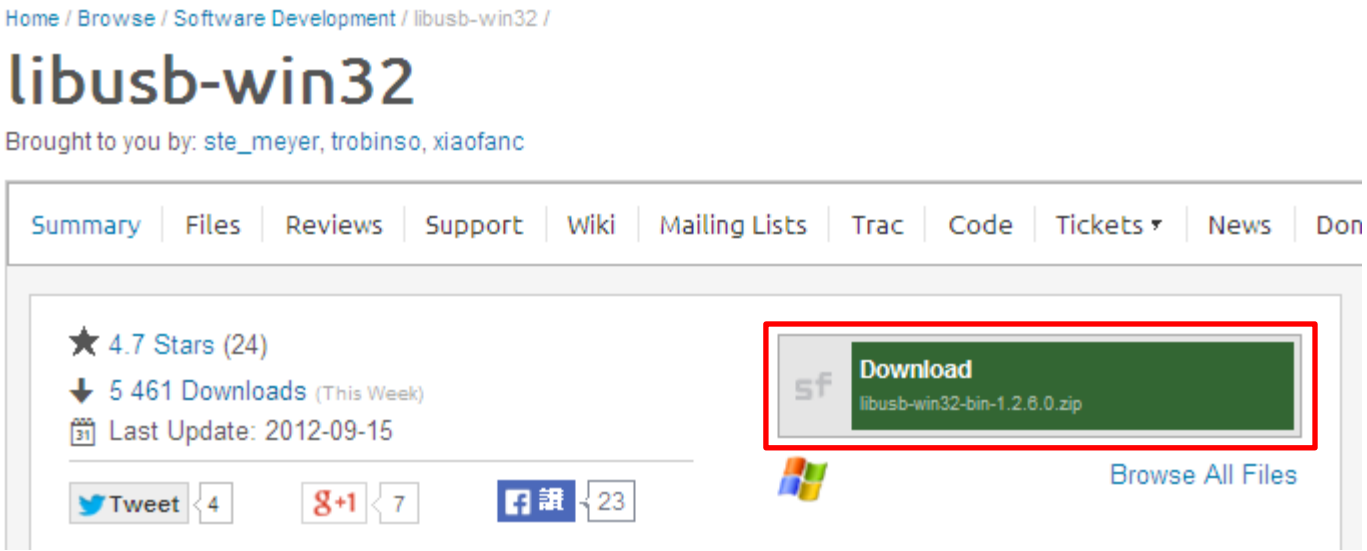
Install the driver manually. You can get the driver from FTDI's web site.
http://www.ftdichip.com/Drivers/VCP.htm

Currently Supported VCP Drivers:

		Processor Architecture							
Operating System	Release Date	x86 (32-bit)	x64 (64-bit)	PPC	ARM	MIPSII	MIPSIV	SH4	Comments
Windows	2014-02-21	2.10.00	2.10.00	-	-	-	-	-	2.10.00 WHQL Certified Available as setup executable Release Notes

2. Download Libusb-win32

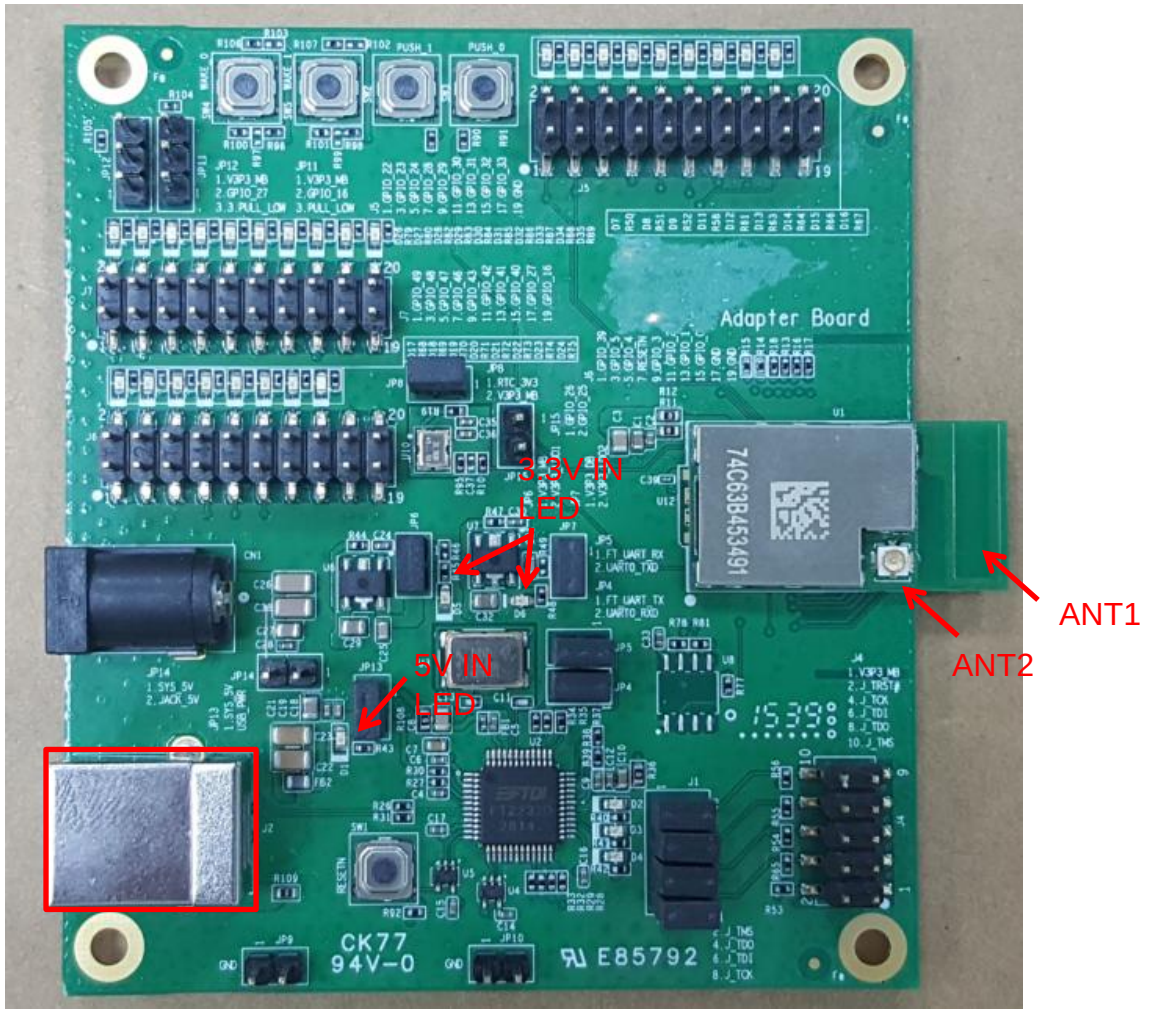
You can get the driver from libusb-win32's web site.
http://sourceforge.net/projects/libusb-win32



3. Set Up the EVB for Windows

The USB port (B type) connects the evaluation board to the PC.

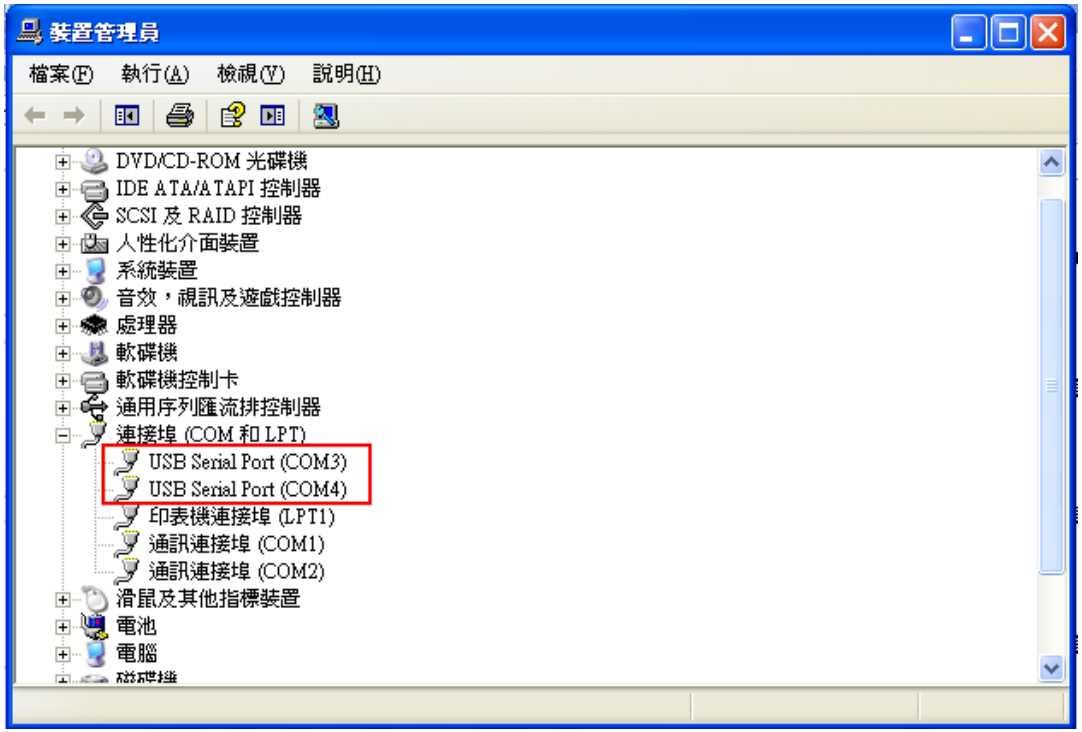
Please refer to the EVB's PCB Info document.



4-1. Install FTDI VCP Drivers

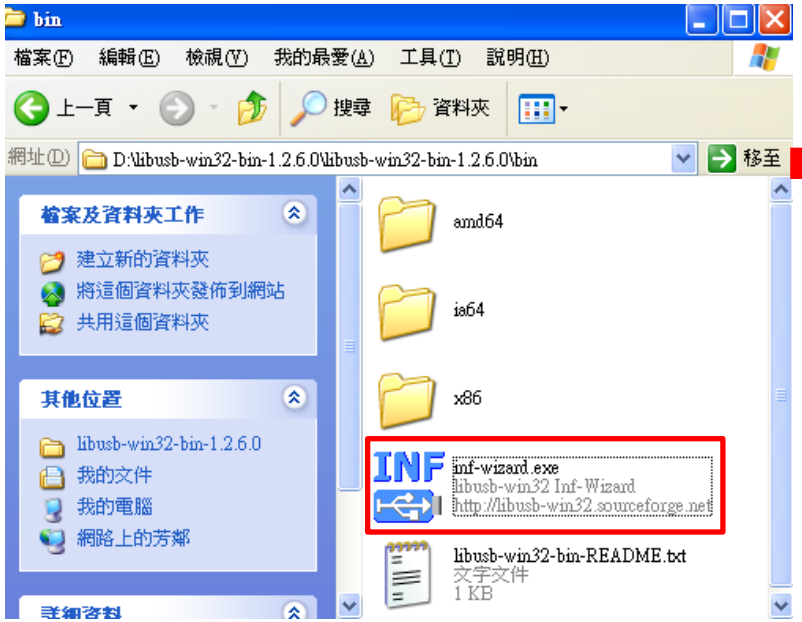
4-2. Install FTDI VCP Drivers

Verifying Driver Installation:
To verify that driver installation has completed successfully, you can open the "**Device Manager" (right-click My Computer, select Properties).**
In the **System Properties windows, select Hardware, Device Manager.**
Two "**USB Serial Port" should be listed under MY-PC\Ports (COM & LPT)**

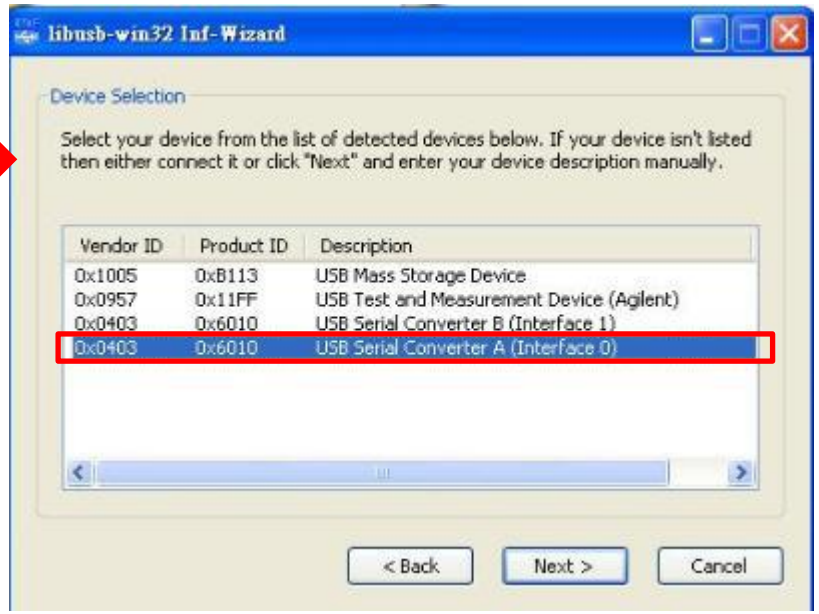


5-1. Install Libusb-win32

Install inf-wizard:

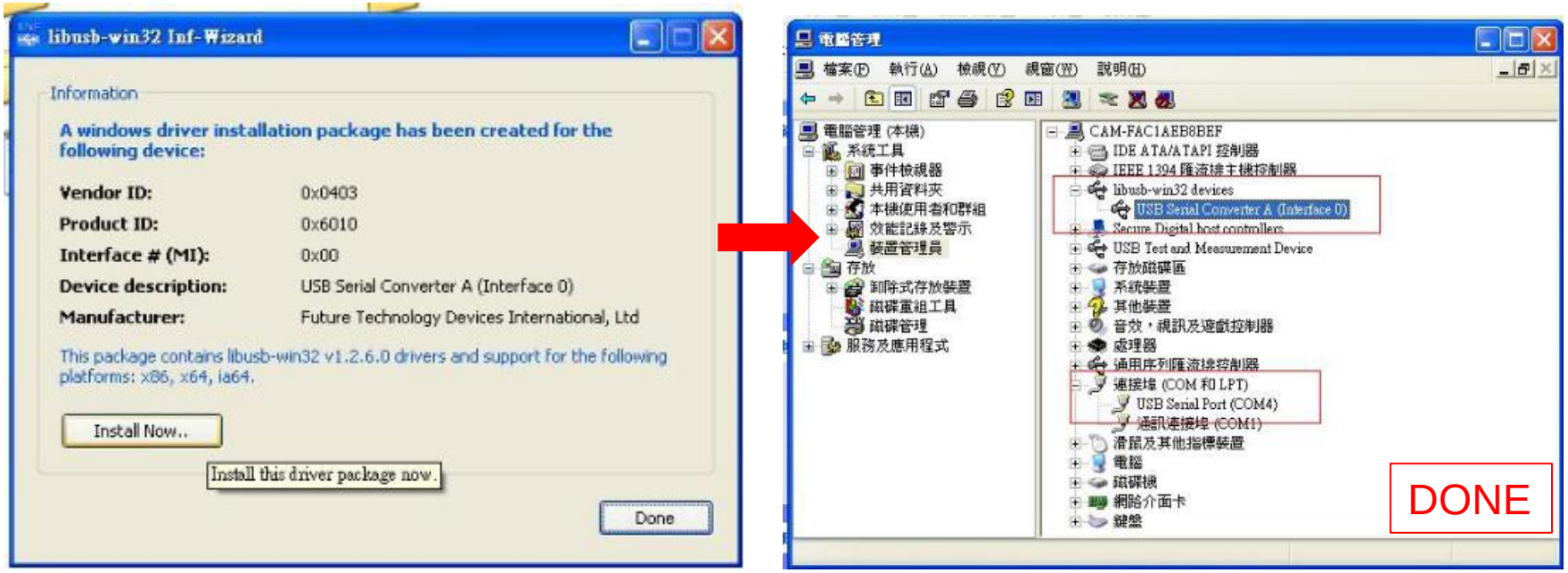


USB Serial Converter A (Interface 0)



5-2. Install Libusb-win32

Verifying Driver Installation:
To verify that driver installation has completed successfully, you can open the "**Device Manager" (right-click My Computer, select Properties).**
In the **System Properties windows, select Hardware, Device Manager.**
One "**USB Serial Converter A" should be listed under MY-PC\Ports (lib usb-win32 devices)**



6-1. Install Cygwin

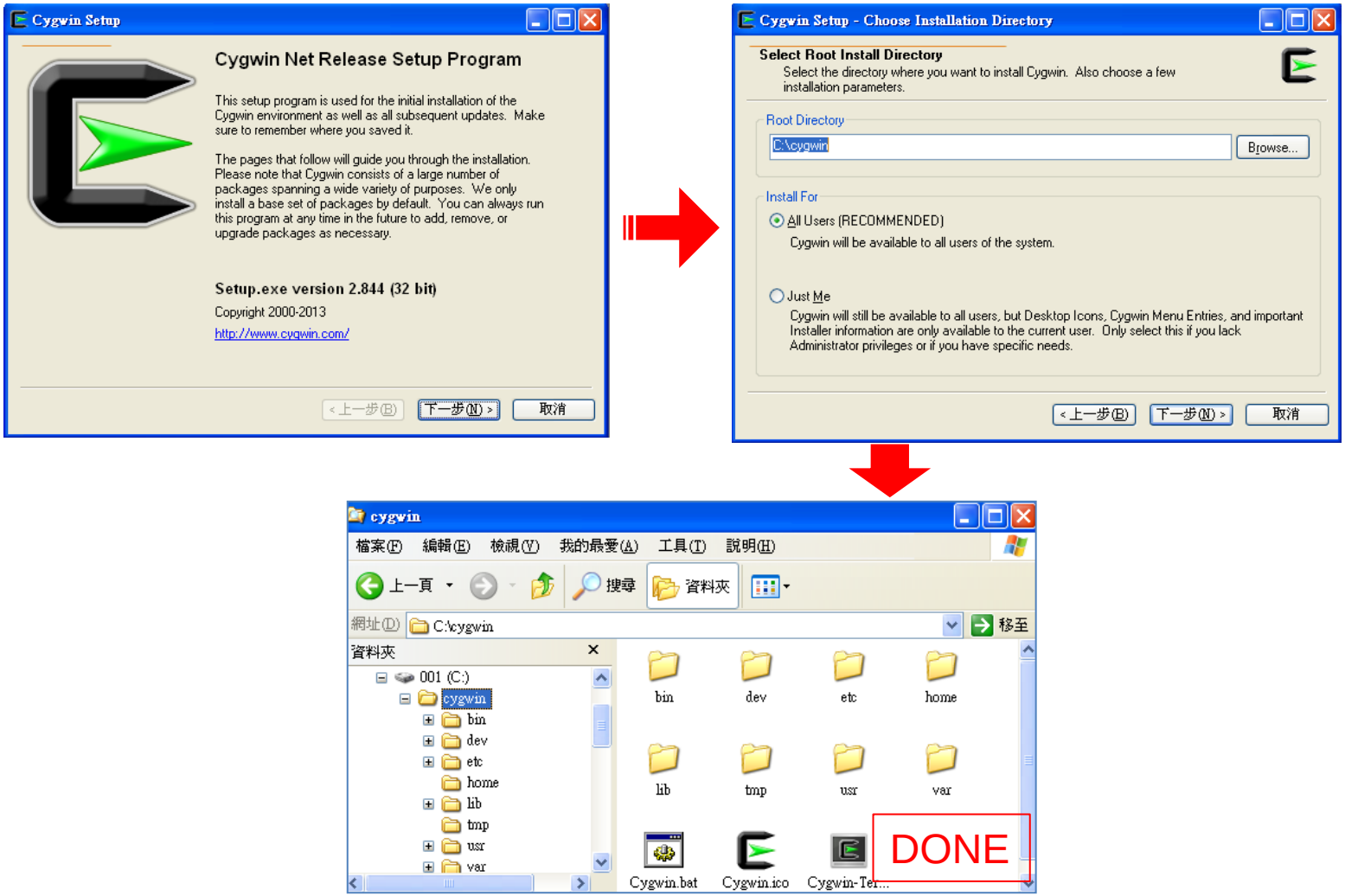
Install Cygwin:

1. Install Cygwin from: http://www.cygwin.com/setup_x86.exe (for x86 32-bit systems) or http://www.cygwin.com/setup_x86_64.exe (for x86 64-bit systems)
2. Select the option Install from Internet
3. Use default installation path: c:\cygwin. If you chose an alternate installation directory, please make sure that there are no spaces in the path.
4. Pick the Local Package Directory (this is the download cache directory)
5. Select the option Direct Connection
6. Select any mirror you want to use
7. Add additional packages to the default selection:

Click “Next”. The Cygwin Setup window will show the progress as each package gets installed.

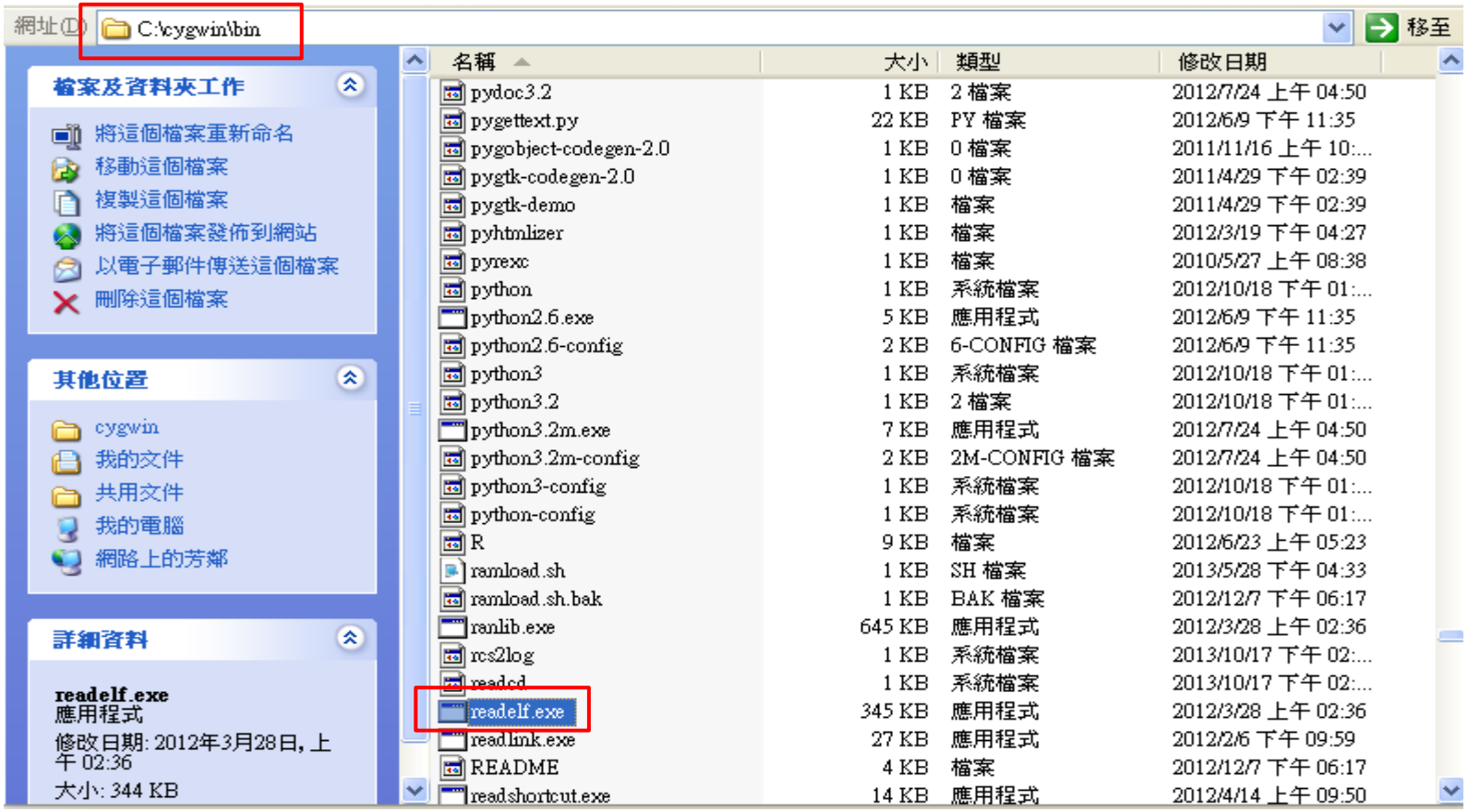
Note:
If you are not familiar with cygwin, please visit http://cygwin.com/ for additional information and details. In particular, the Cygwin User Guide (http://cygwin.com/cygwin-ug-net/) is a good resource for new users.

6-2. Install Cygwin



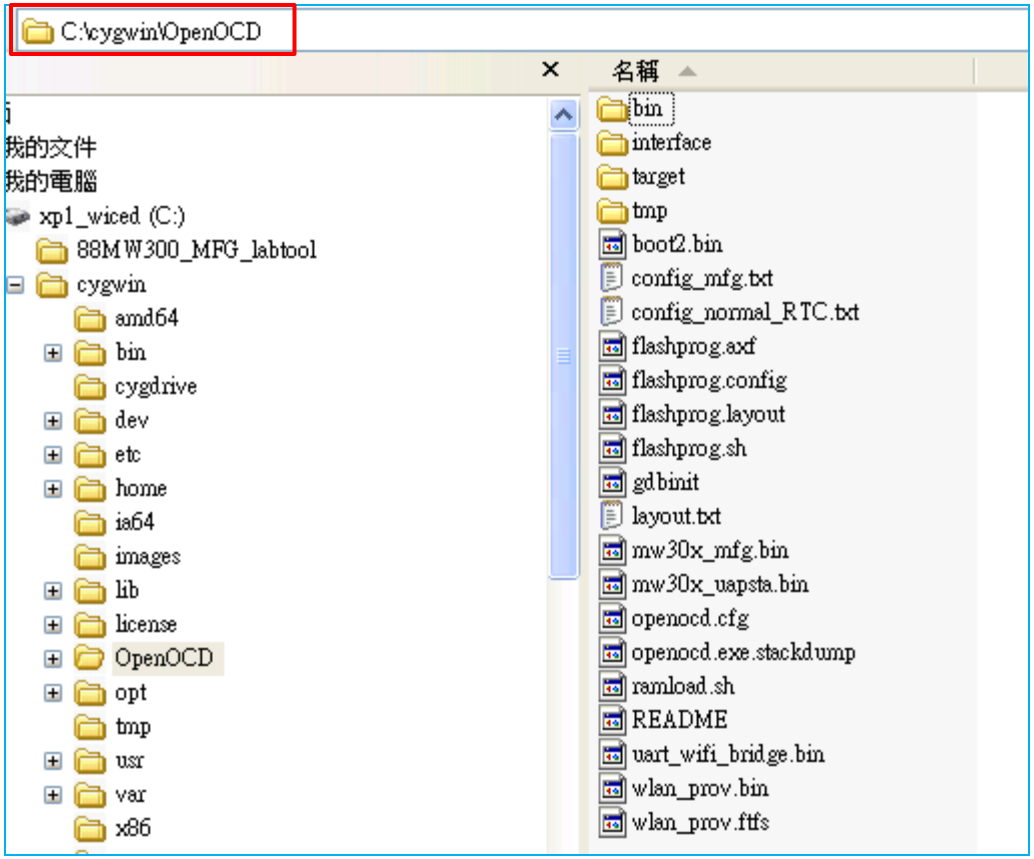
7-1. Insert file “OpenOCD.zip”

Unzip “module_OpenOCD.zip” and put “readelf.exe” to C:\cygwin\bin



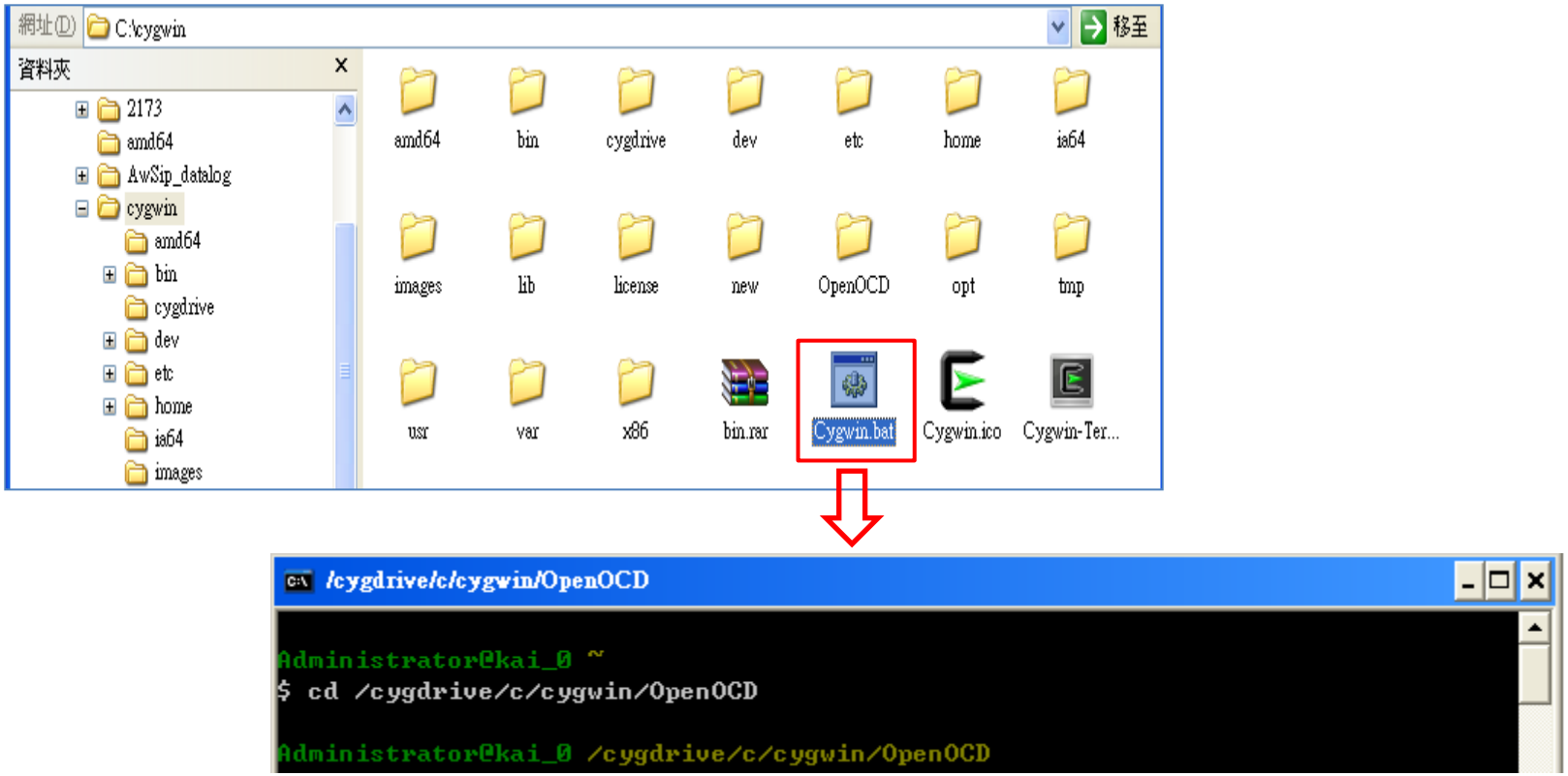
7-2. Insert file “OpenOCD.zip”

Unzip “module_OpenOCD.zip” and put them to C:\cygwin



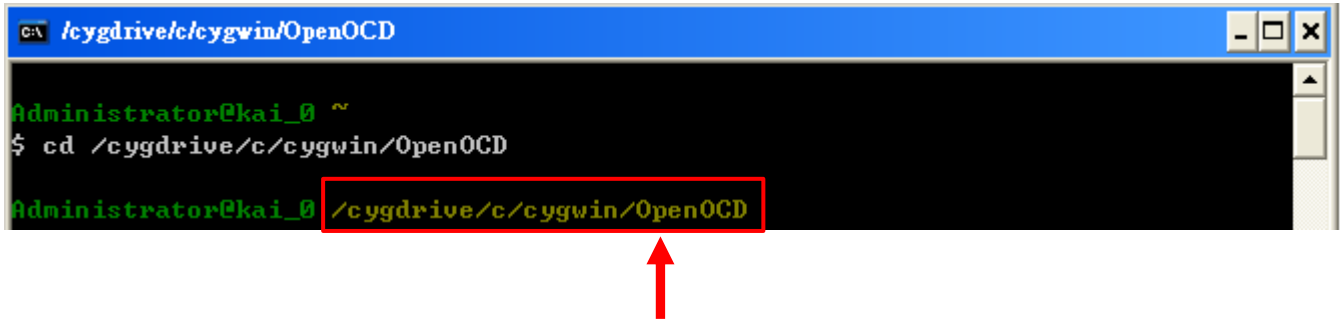
7-3. Insert file “OpenOCD.zip”

Process C:\cygwin\Cygwin.bat



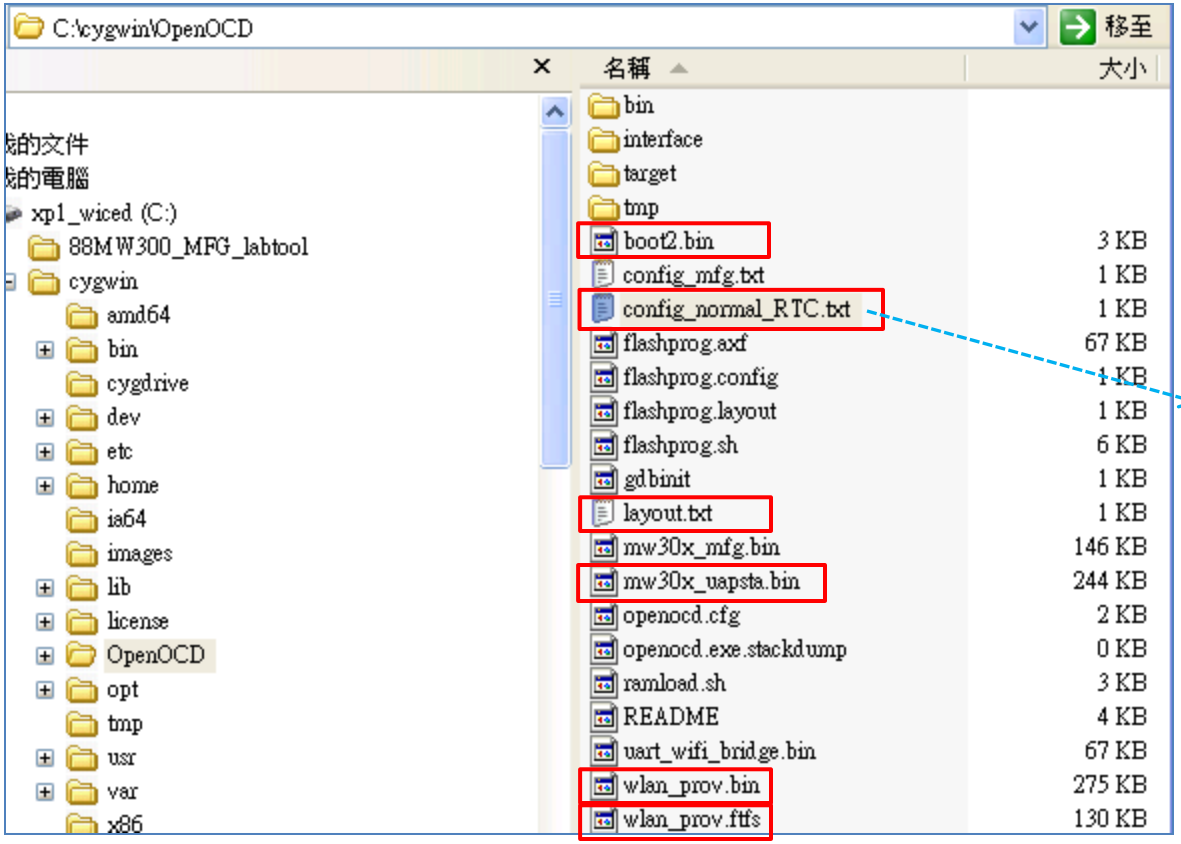
7-4. Insert file “OpenOCD.zip”

Key in command : cd /cygdrive/c/cygwin/OpenOCD



8-1. Burning Normal F/W

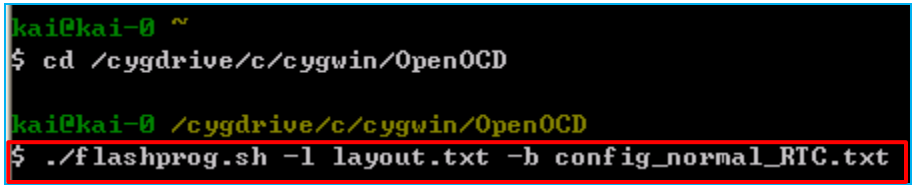
Check config_normal_RTC.txt, layout.txt … 6 files in the OpenOCD folder



Check path name

8-2. Burning Normal F/W

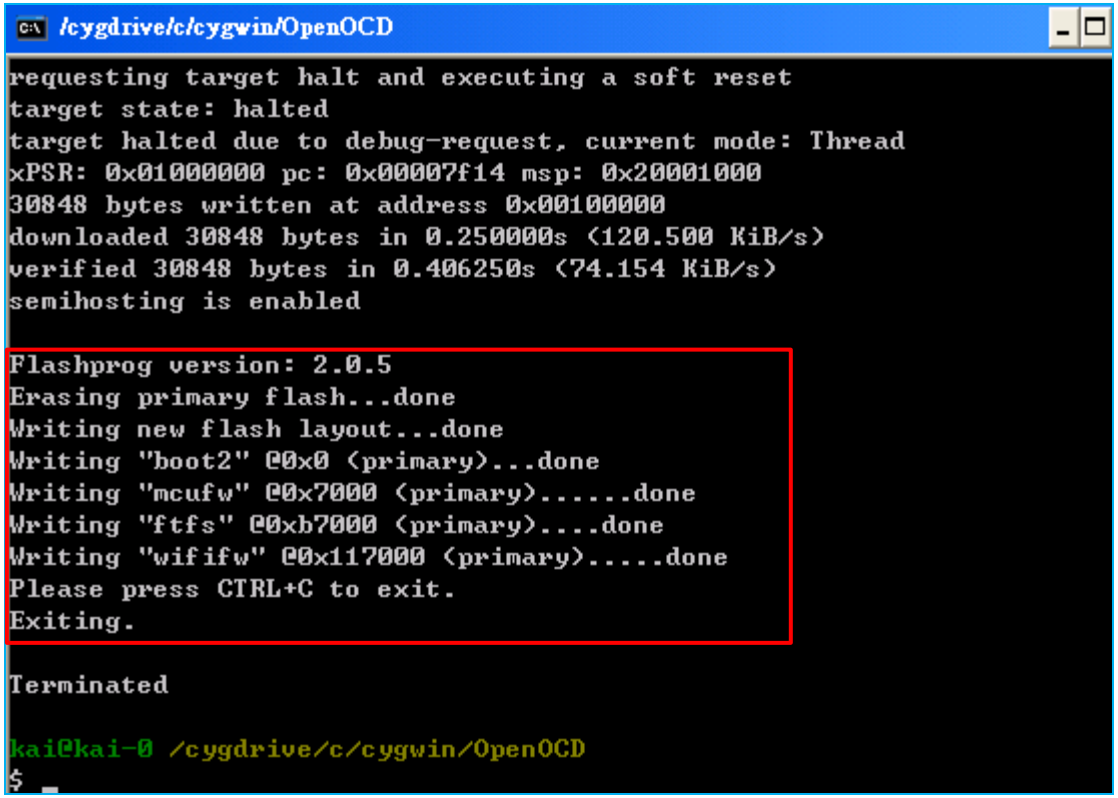
Key in command : ./flashprog.sh -l layout.txt -b config_normal_RTC.txt



8-3. Burning Normal F/W

Burning information print as followed:

Note : Please restart DUT after burning (Plug-in and Plug-out USB)



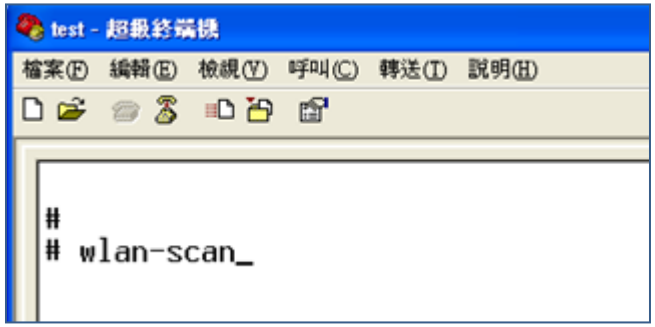
9-1. Run normal F/W

Open OS terminal and set USB comport (reference to the page9), set baud-rate as 115200

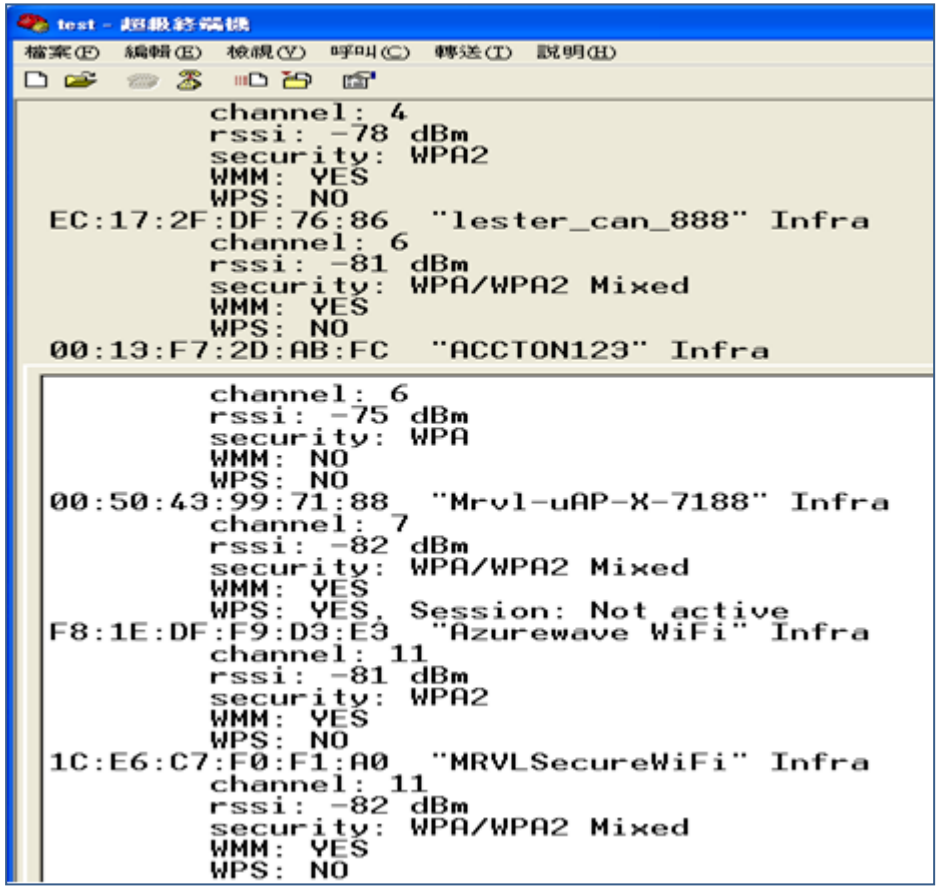
9-2. Run normal F/W

Enter help on the screen to see a full list of commands available for use

EX:
wlan-scan

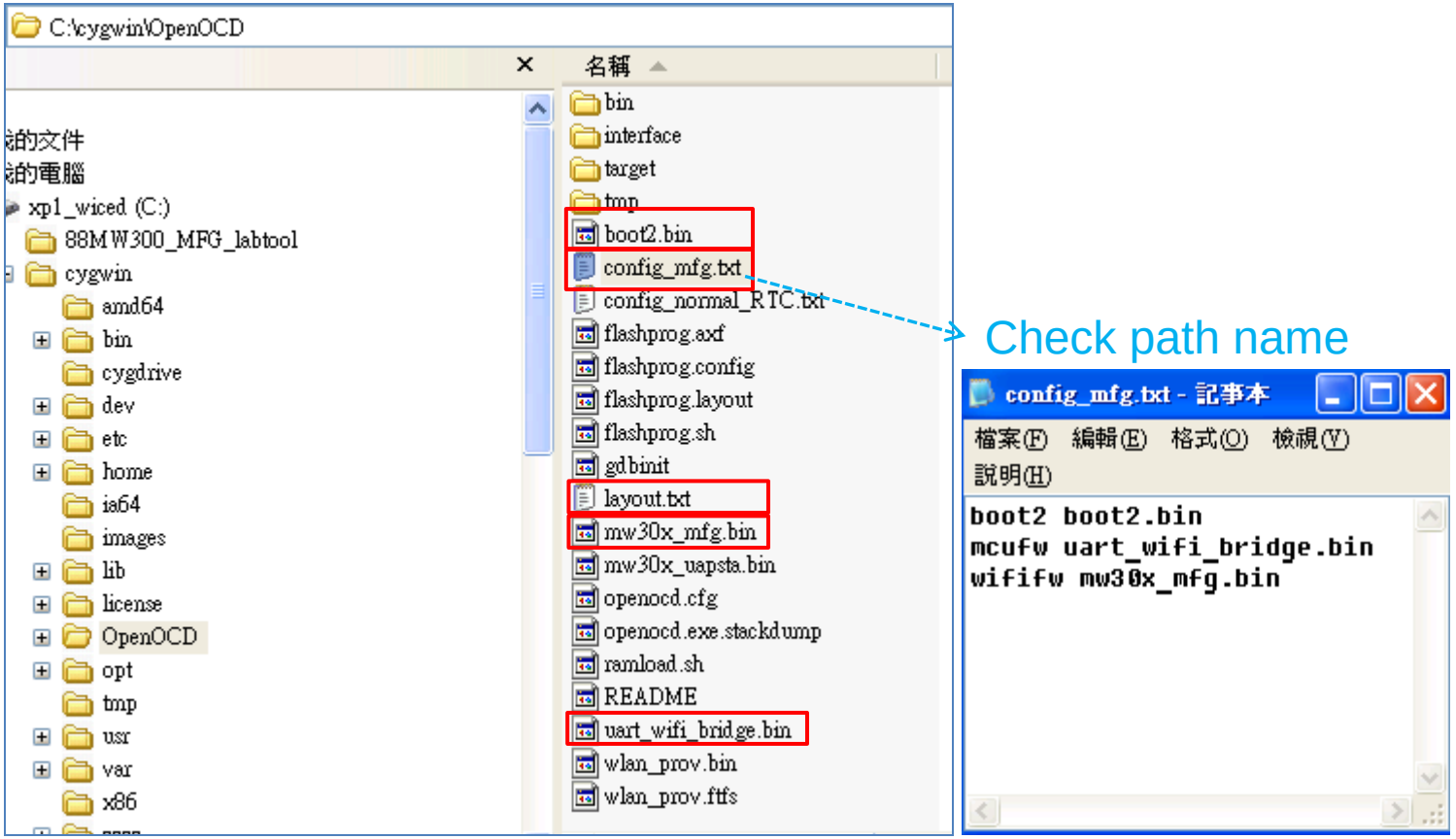


That will scan around AP



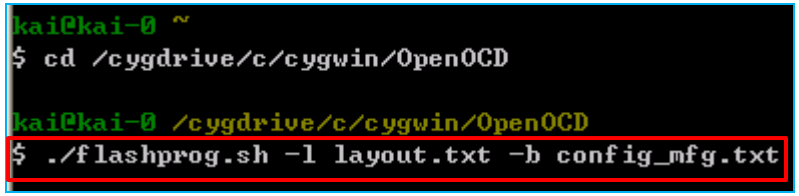
10-1. Burning MFG F/W

Check config_mfg.txt, layout.txt … 5files in OpenOCD folder



10-2. Burning MFG F/W

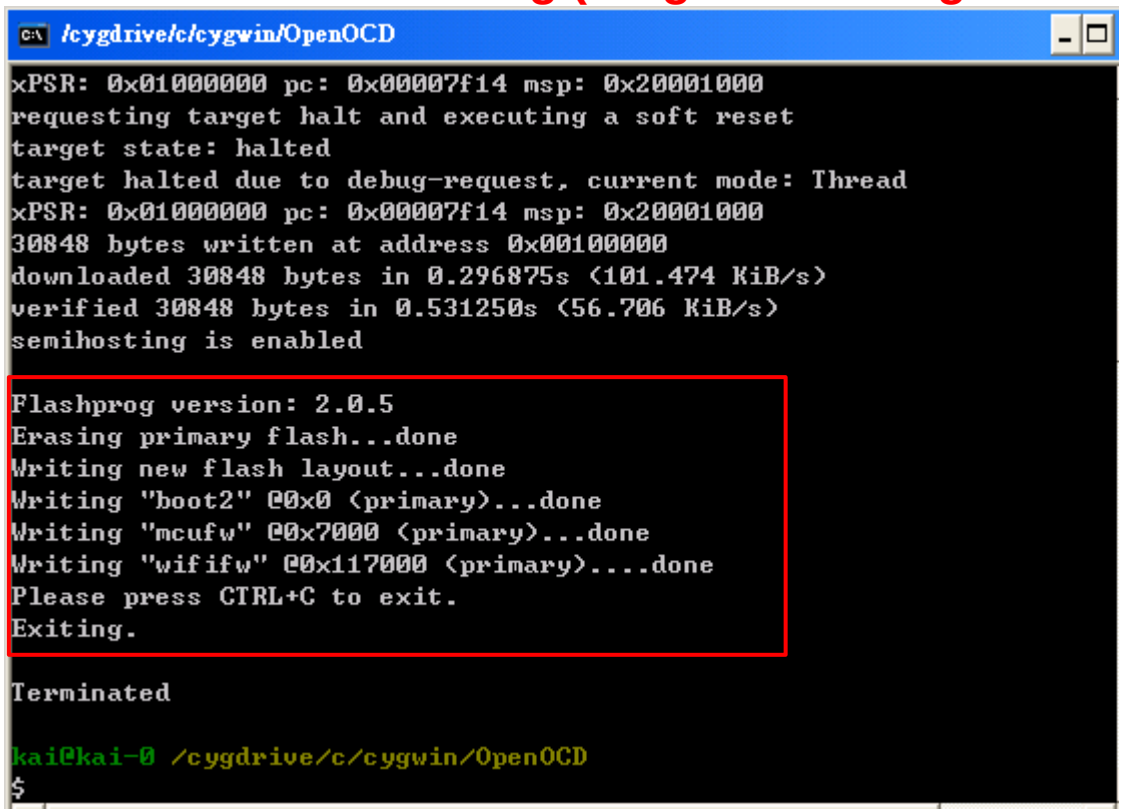
Command : ./flashprog.sh –l layout.txt –b config_mfg.txt



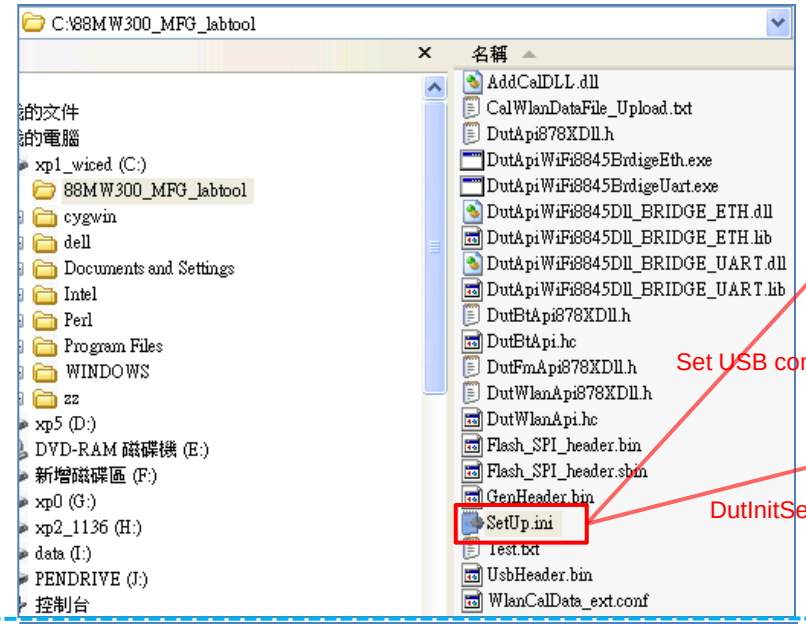
10-3. Burning MFG F/W

Burning information print as followed:

Note : Please restart DUT after burning (Plug-in and Plug-out USB)

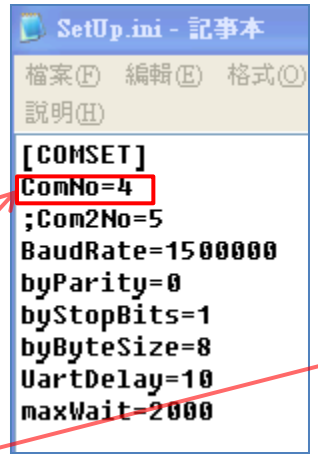


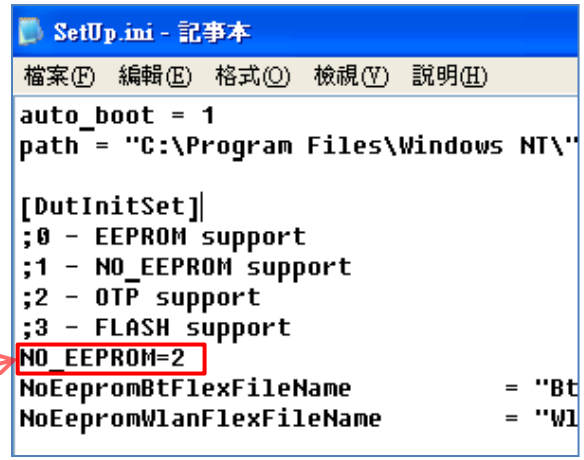
11-1. Run Marvel WIFI MFG tool



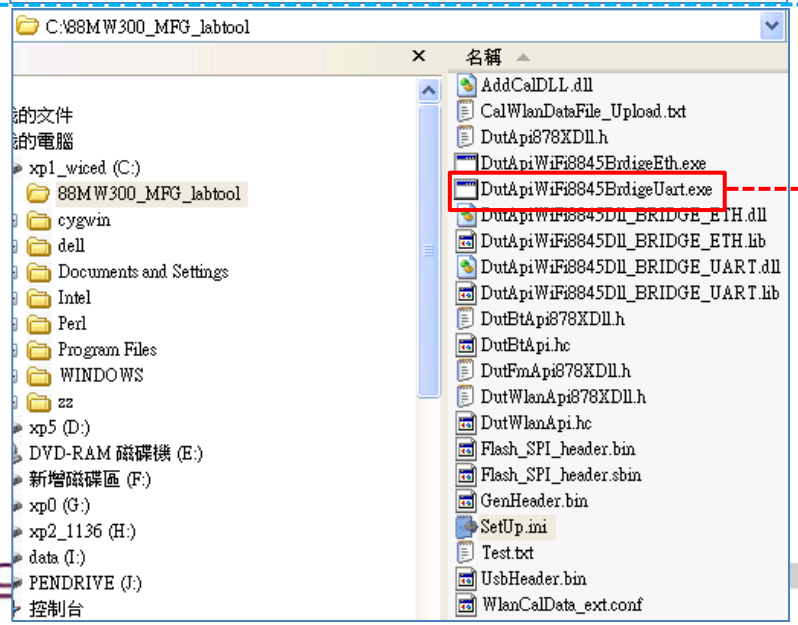
Set USB comport

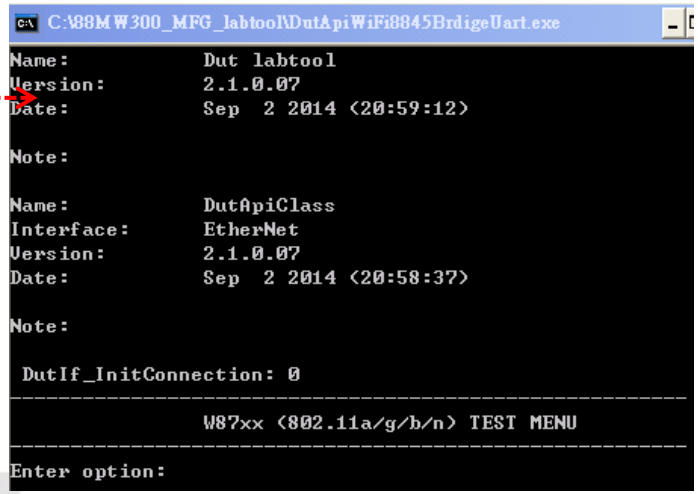
DutInitSet to 2(OTP)



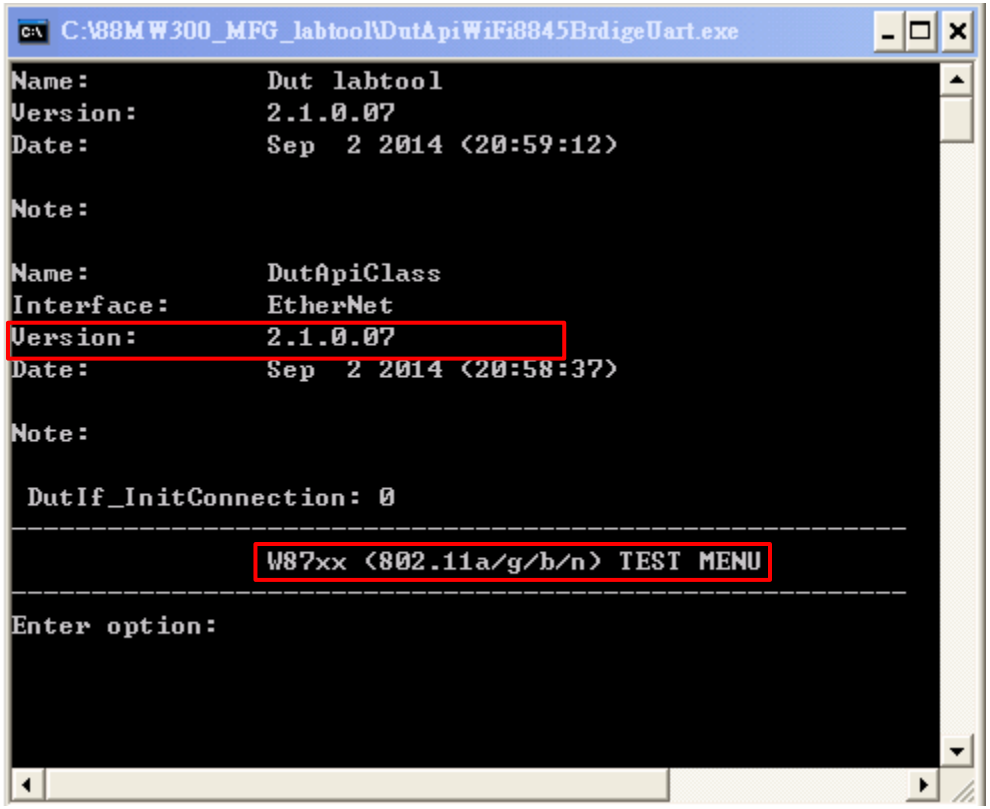


Run Marvel MFG tool





11-2. Run Marvel WIFI MFG tool



Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device is intended only for OEM integrators under the following conditions:

The antenna must be installed such that 20 cm is maintained between the antenna and users, and
The transmitter module may not be co-located with any other transmitter or antenna.

As long as **2** conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling
This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: “Contains FCC ID: 2AH3X-M001”. The grantee's FCC ID can be used only when all FCC compliance requirements are met.

Manual Information To the End User
The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user’s manual of the end product which integrates this module.
The end user manual shall include all required regulatory information/warning as show in this manual.