

Foxconn Bluetooth Module User Manual

Revision 1.00

09/25/2006

Revision History

Revision	Date	Name	Description
1.00	09/25/2006	Zhi-cheng Yu	First Release

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1. Overview

1.1 Setup PC

Bluetooth module development is necessary to setup your PC. Broadcom Bluetool and Active Perl must be installed your PC. Two USB Drivers must be Installed your PC. This documentation is the support guide for starting your development.

1.2 Writing firmware

Bluetooth module must be written the firmware. This documentation is the support guide for writing the firmware.

2. Install the Applications

2.1 Applications

ActivePerl 5.8.4.810 only

Bluetool 0.9.4.3 (or higher revision)

2.2 Installation

First, install ActivePerl at your PC. Select default state. Second, install Bluetool. Select default state.

Notice: If first install Bluetool, uninstall Bluetool. Try again.

3. Plug-in Bluetooth Module

3.1 Plug-in

Plug-in your Bluetooth module.
Confirm USB D+ to be pull up.
Host PC will detect USB device.

3.2 Install USB driver

Install USB driver Nintendo tendered. This USB driver revision is 5.1.0.200. Confirm Bluetooth device at device manager.

3.3 Starting Bluetool

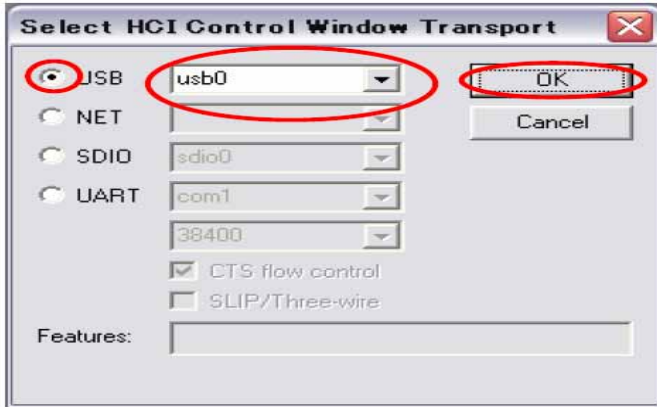
From the start menu, select Broadcom Bluetool and then the Bluetool icon.
Bluetool displays an empty window the first time that is run.



3.4 Open USB Interface

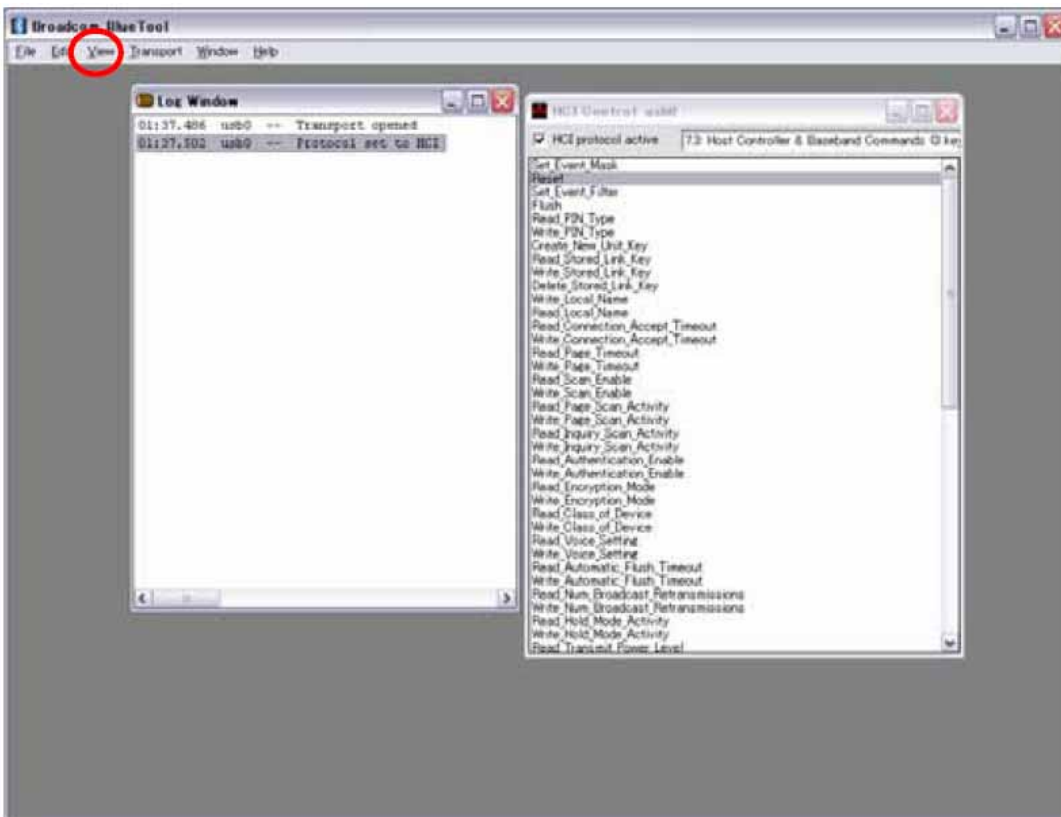
From the transport menu, select HCI control

Check USB, and select pull-down menu usb0, click OK.



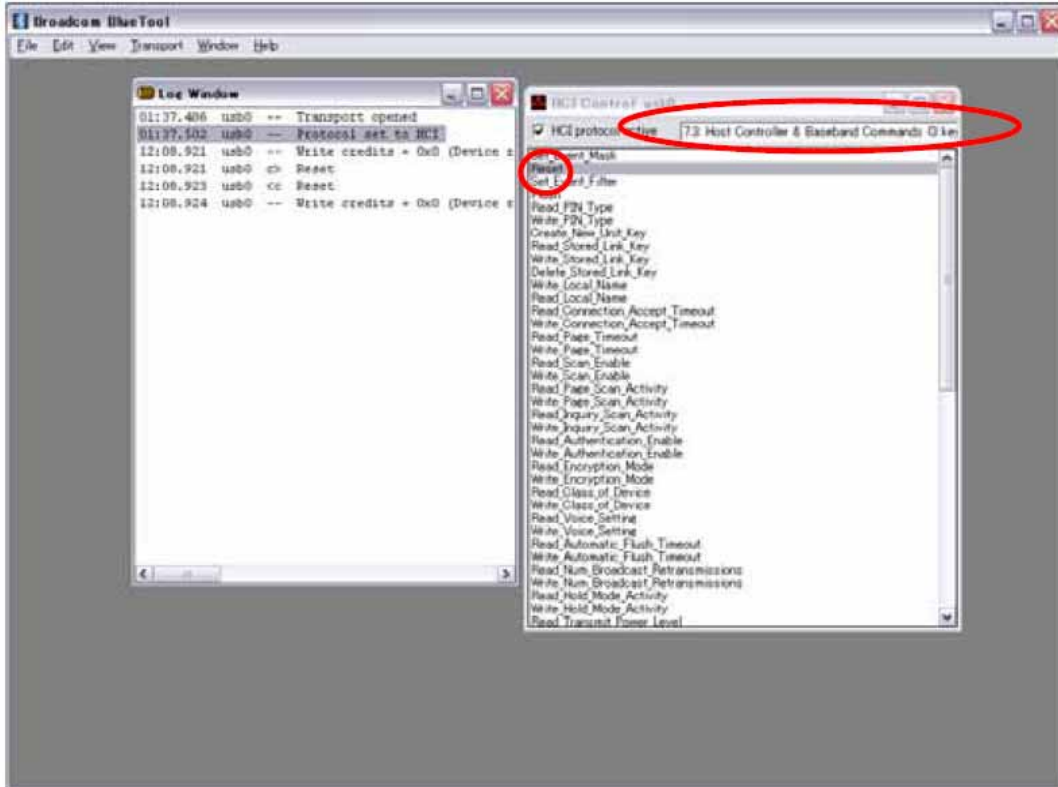
3.5 Log window

From the View menu, select Log window.



3.6 HCI command transport to Bluetooth module

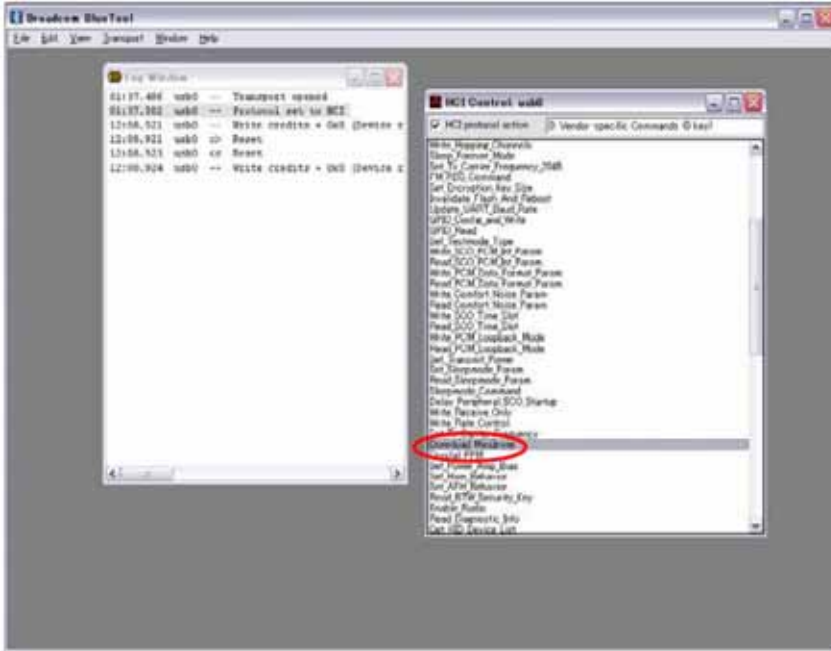
From HCI Control window, click Reset.



4. Write Nintendo firmware

4.1. Prepare to write

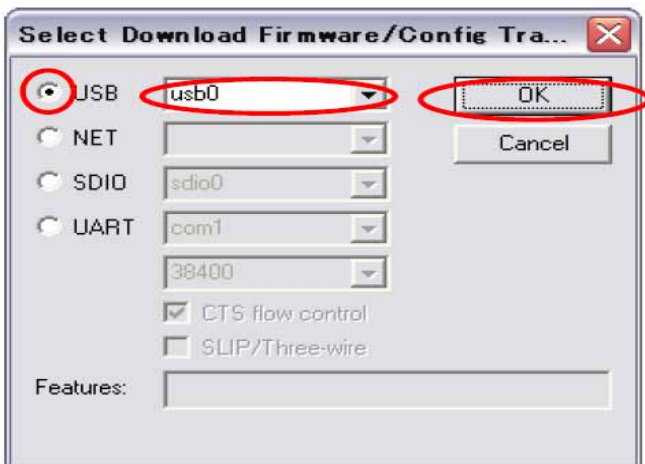
Before writing firmware, from pull-down menu on HCI control window, select 0:Vendor-specific Commands. Click "Download Minidriver".



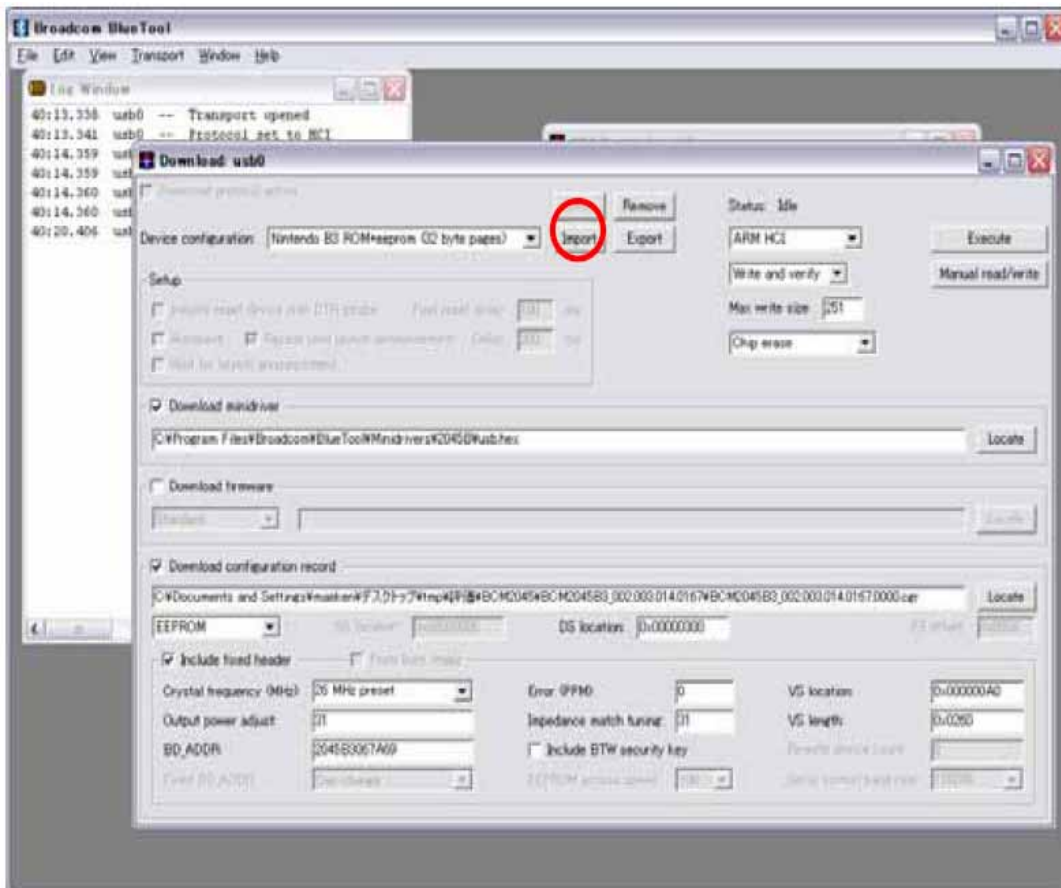
4.2. Set download components.

From the transport menu, select Download and Firmware/Config.....

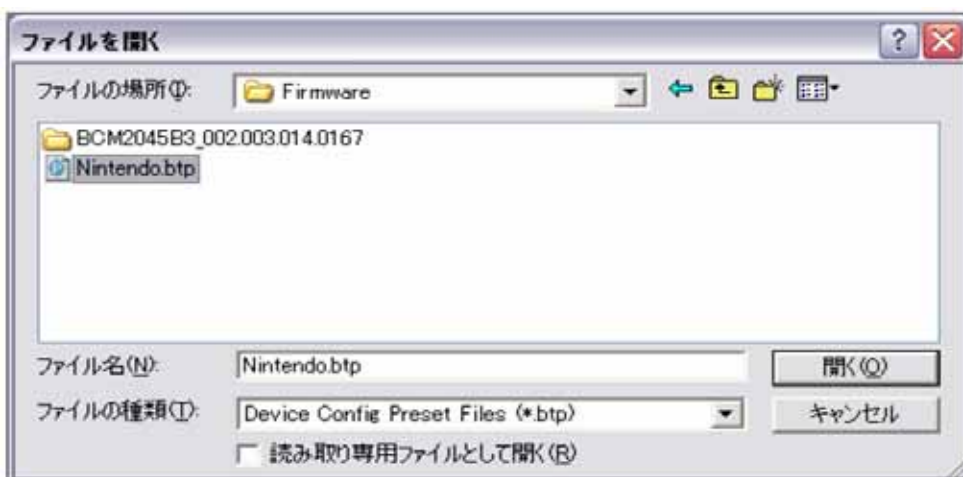
Check USB, and select pull-down menu usb0, click OK.



From Download menu, click Import.

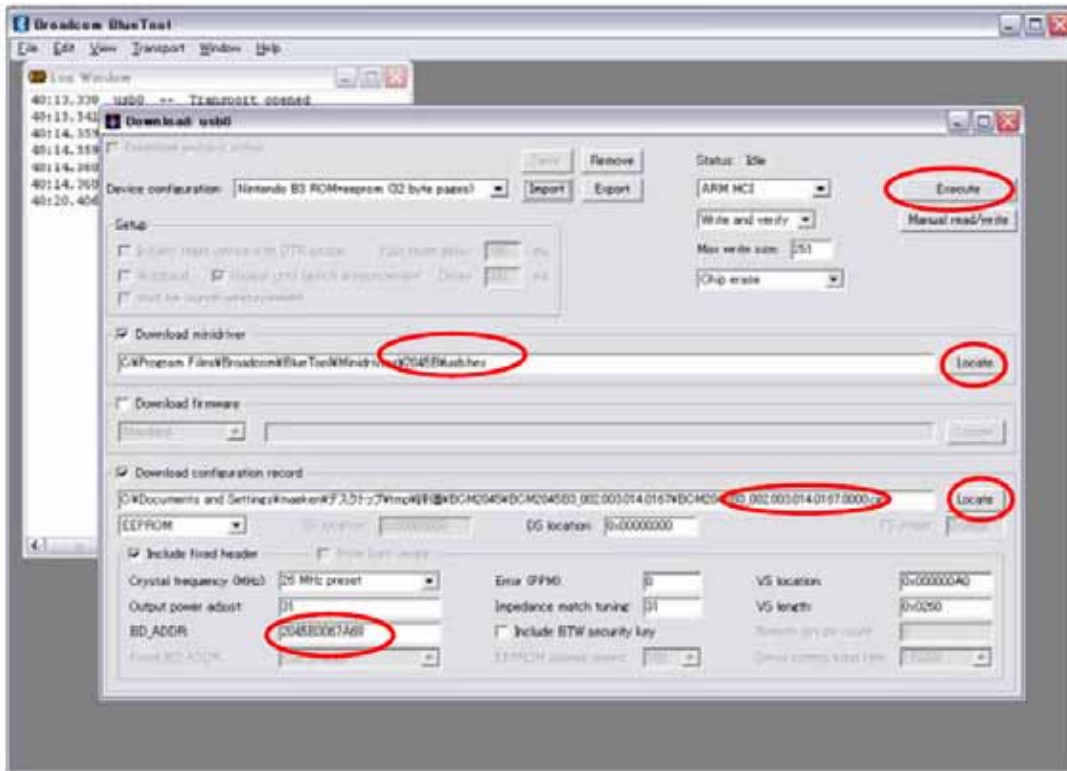


Import Nintendo.btp file. This import file is EEPROM setting files for Nintendo firmware. Confirm device configuration is selected “Nintendo B3 ROM + eeprom 32 byte pages”



Set Download minidriver. Select usb.hex file. It is default so, not to change.
 Set Download configuration record. Select BCM2045B3_002.003.014.0167.0000.cgr file.
 Set BD_ADDR. BD_ADDR is same as MAC address.

Click Execute. So Writing firmware will start.



5. Set nintendo module

5.1 Remove USB D+ pull-up

USB pull-up must be removed because nintendo module (writing nintendo firmware module) has internal USB pull-up resistor. If not remove, Host PC recognize wrong device.

5.2 GPIO Default Status

GPIO must be set as follows table.

Pin name	GPIO No.	I/O	Default Status	Note.
BTRST	0	Input	Hi	
RF LINK	1	Input	Low	
SIO EXTIN	2	Input	Low	BCM2045 set "pull-up"
SI1 EXTIN	3	Input	Low	BCM2045 set "pull-up"
SI2 EXTIN	4	Input	Low	BCM2045 set "pull-up"
SI3 EXTIN	5	Input	Low	BCM2045 set "pull-up"
BT PWRREQ	6	Output	-	
DCDC PWRCNT	7	Input	Hi	

5.3 Install Nintendo USB driver

Nintendo USB driver must be installed. USD Vender ID and product ID of nintendo module is not same as it of Pre-write module. Nintendo USB driver revision is 5.1.0.200(Nintendo).

Confirm Bluetooth device at device manager.

低功率電波幅性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

“ Operation is subject to the following two conditions:(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. ” This Class B digital apparatus complies with Canada RSS-210. Cet appareil numérique de la classe B est conforme a la norme CNR -210 du Canada The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.(DoC) The term “ IC: ” before the certification/registration number only signifies that the Industry Canada technical specifications were met.

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 or more 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.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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. As long as conditions above is 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 (for example, digital device emissions, PC peripheral requirements, etc.).

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

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

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 devices 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 visible area with the following: "Contains TX FCC ID: MCLJ27H002 manual information that Must be include."

End Product Manual Information

The user manual for end users must include the following information in a prominent location "IMPORTANT NOTE":
To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.