

# REALTEK

## RTL8723DE

### PCI-Express NGFF1630-S2-E User's Manual



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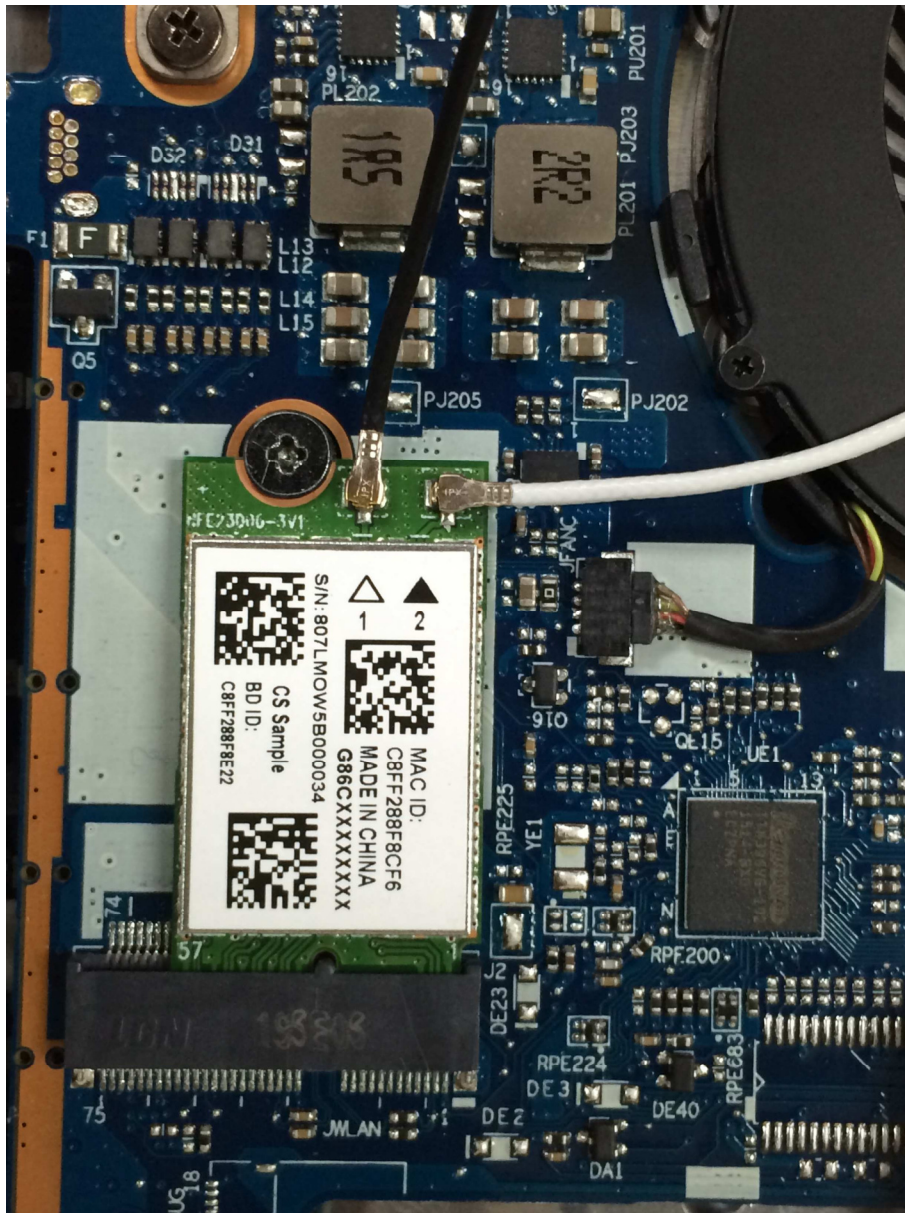
# Installing the Wireless PCIe NGFF1630 module Hardware

Step 1. Shut down the computer.

Step 2. Installing PCIe NGFF1630 module to PCIe NGFF1630 connector.



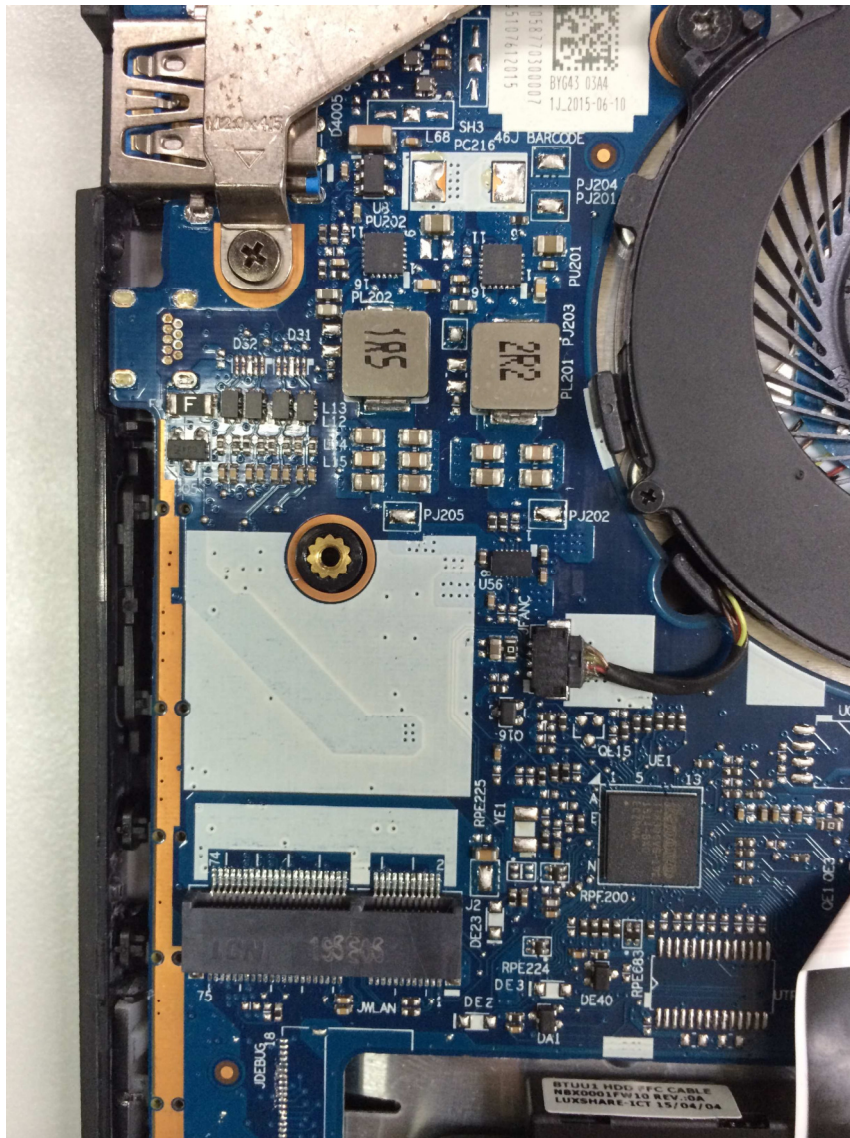
Step 3. Connect two external Wi-Fi antennas on I-PEX connectors.



step4. Power on the computer.



NGFF1630 connector port.



Step 4. Power on the computer.

## **Installing the Wireless PCIe NGFF1630 module Software**

Before you proceed with the installation, please notice following descriptions.

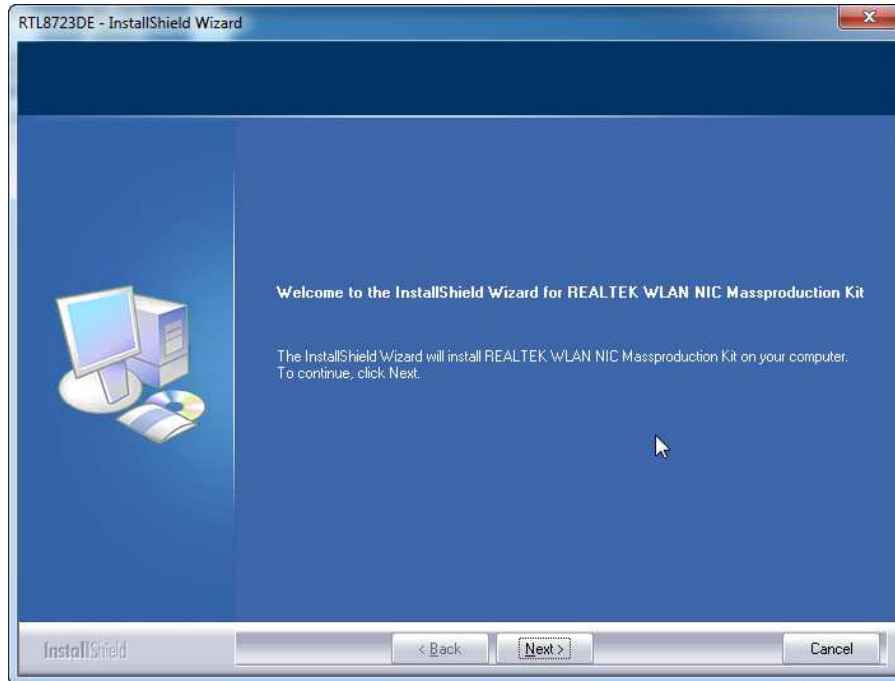
**Note1: The following installation was operated under Windows 7.**

**Note2: If you have installed the WLAN driver & utility before, please uninstall the old version first.**

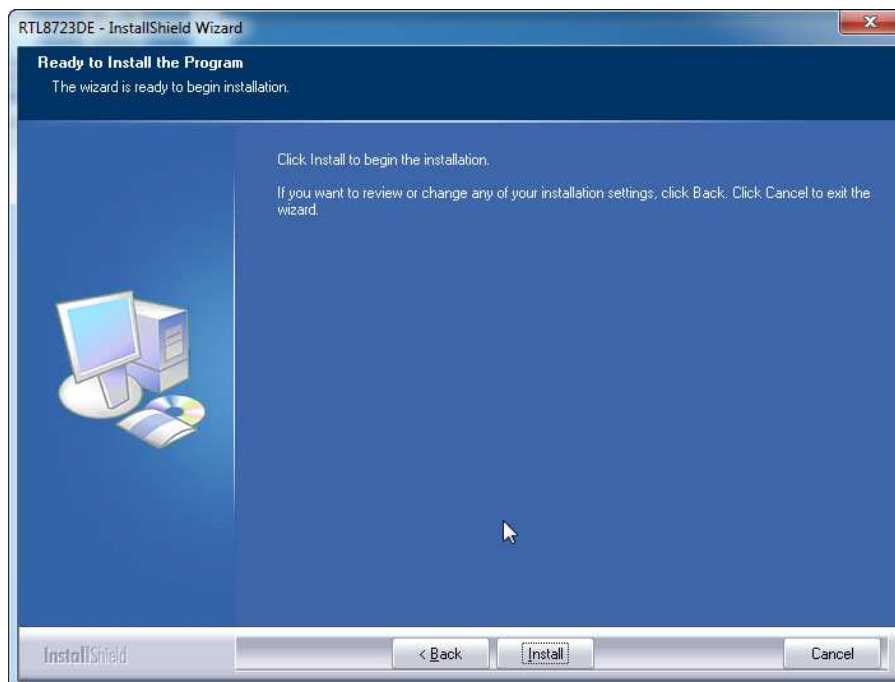
**If you install the “Realtek11n Single Chip PCIE WLAN NIC Mass production kit” into your laptop computer before installing the software**

**program from  
the CD.**

A. Insert the Installation CD to your CD-ROM Drive. Execute the “setup” Program, Click “Next” to process the installation



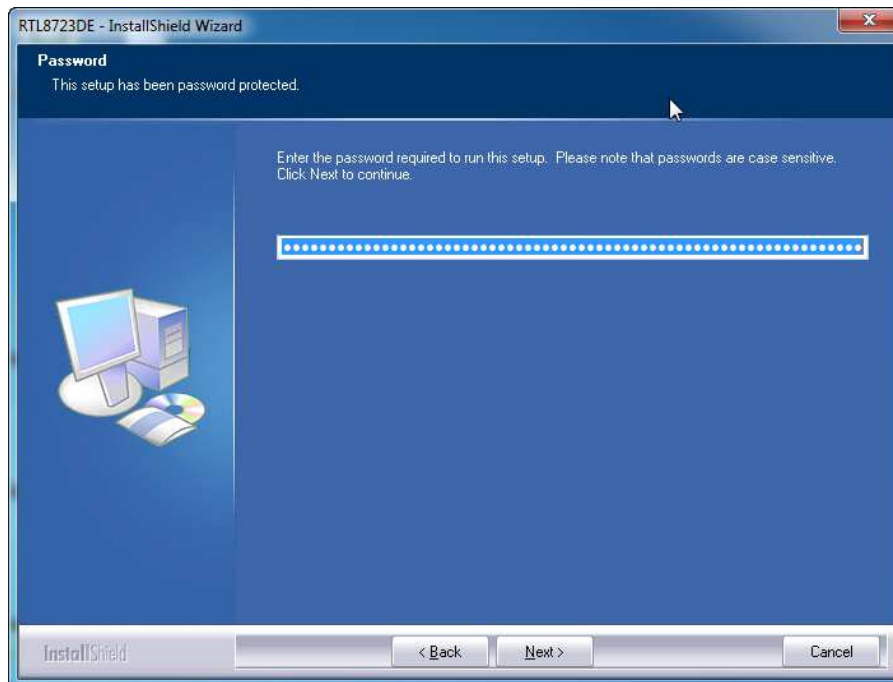
B. Click “Install” to process the installation



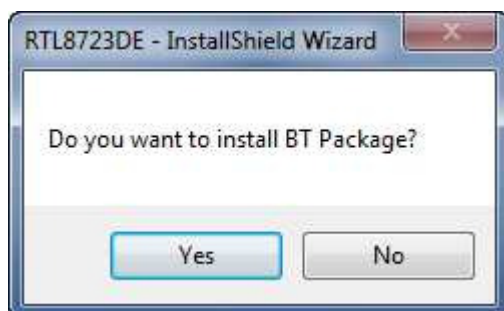
C. Click Install this driver software anyway



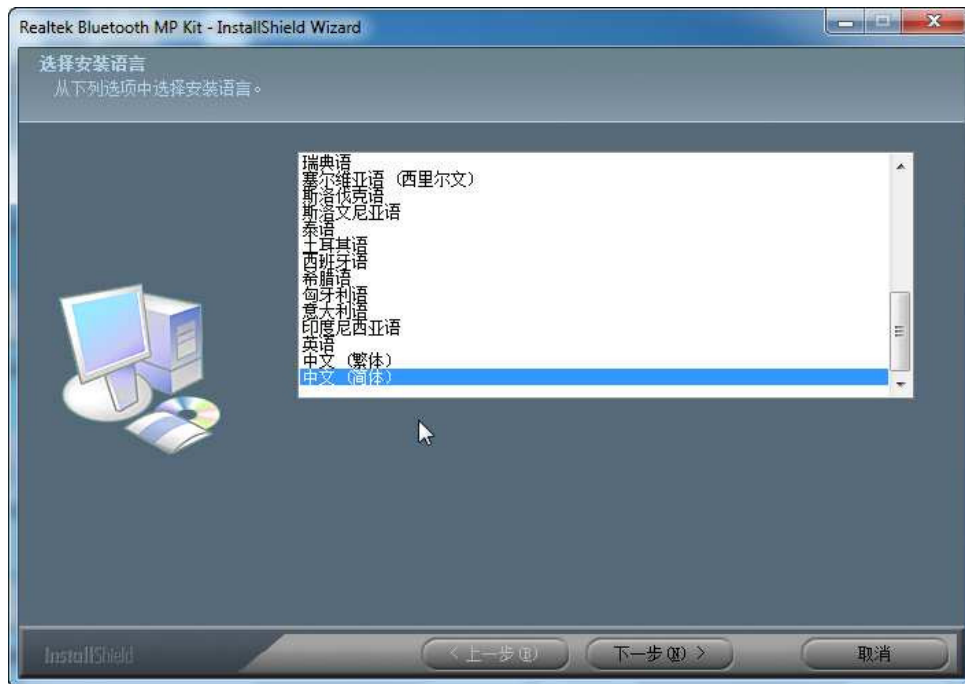
D. After step "C" please press Next button.



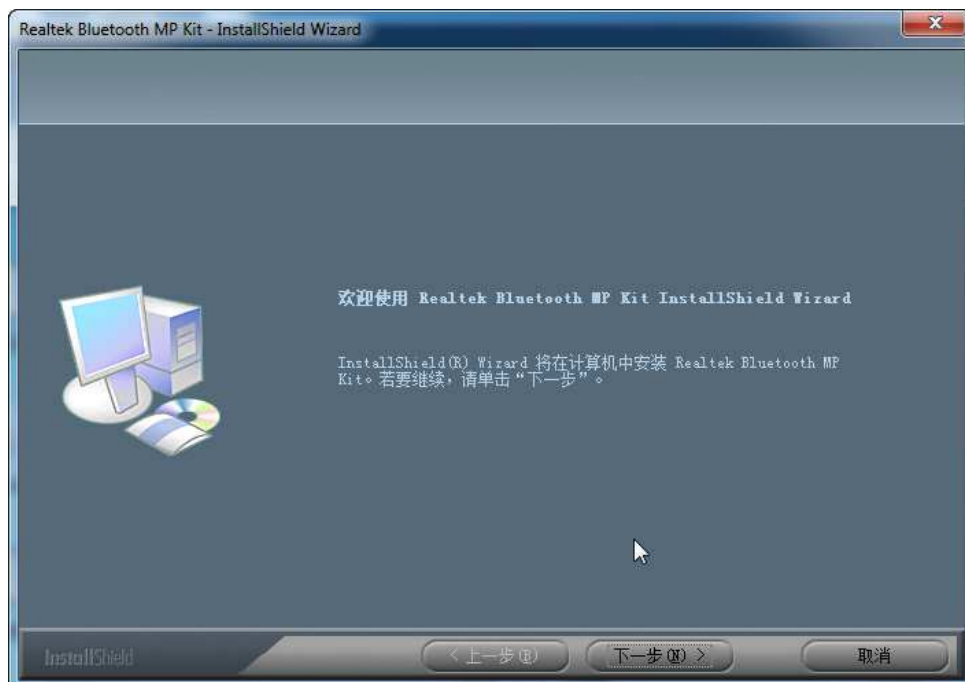
E. Please click "YES" to install BT package.



F. Please click “下一步”to continue.



G. Please click “下一步”to continue.

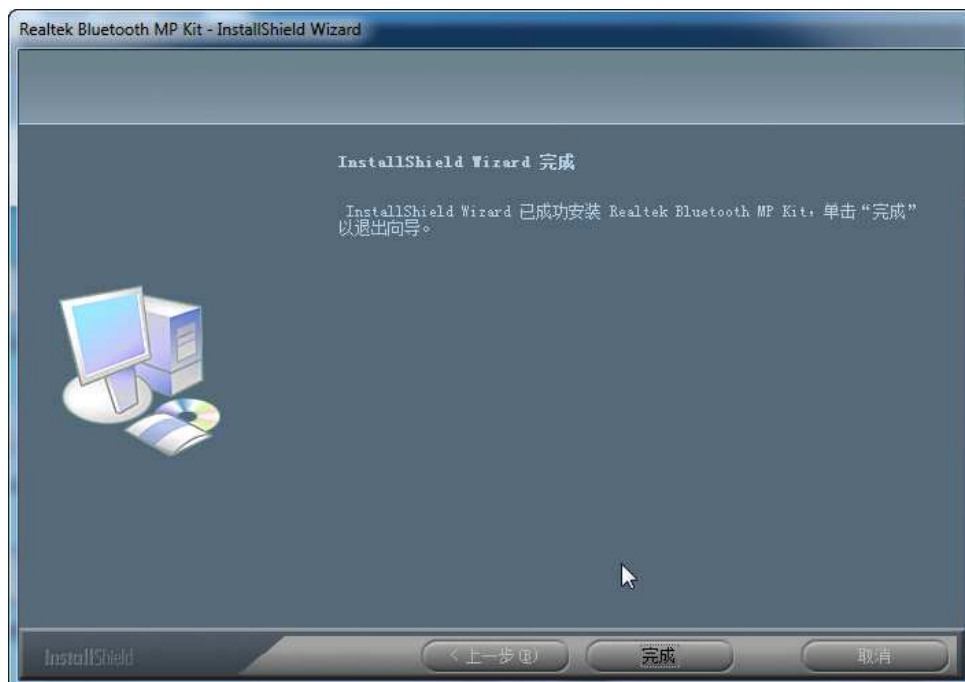




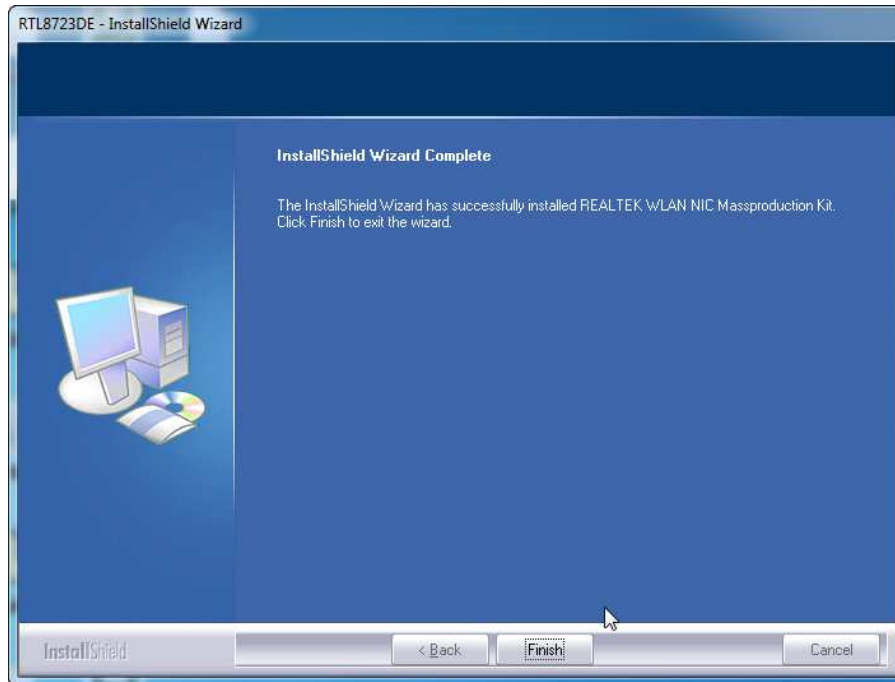
H. Please click “安装”to start installation.



I. Please click “完成”to finish the installation.



J. Press Finish button to complete the install process



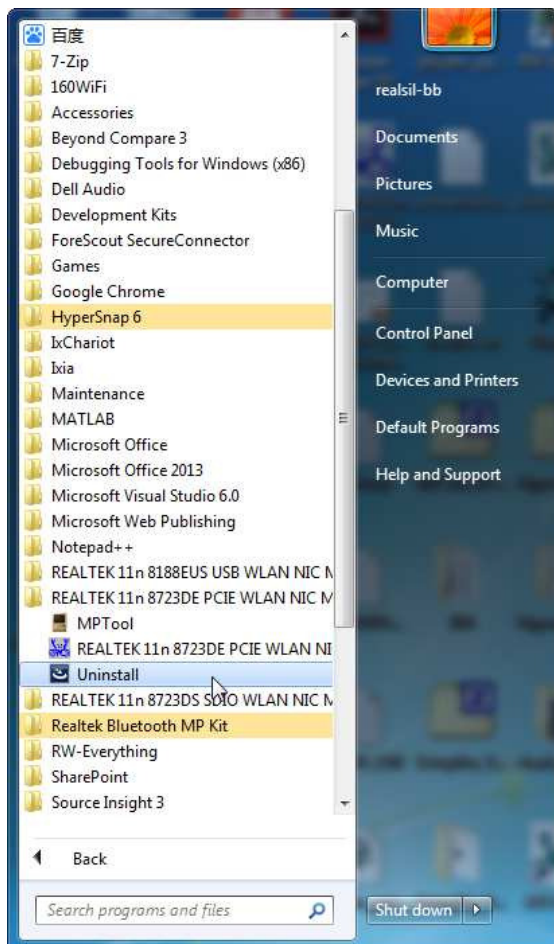
# Un-installing the Wireless PCIe NGFF1630 module Software

If you install Realtek11n Single Chip PCIE WLAN NIC Mass production kit into your laptop computer after installing the software program from the CD.

When you install Realtek11n Single Chip WLAN PCIE NGFF1630 Adapter, the following dialog will be shown.

A. Uninstall the RTL8723DE WLAN Driver from “Start”→ “All Programs”→ “REALTEK 11n 8723DE PCIE WLAN NIC Massproduction kit”

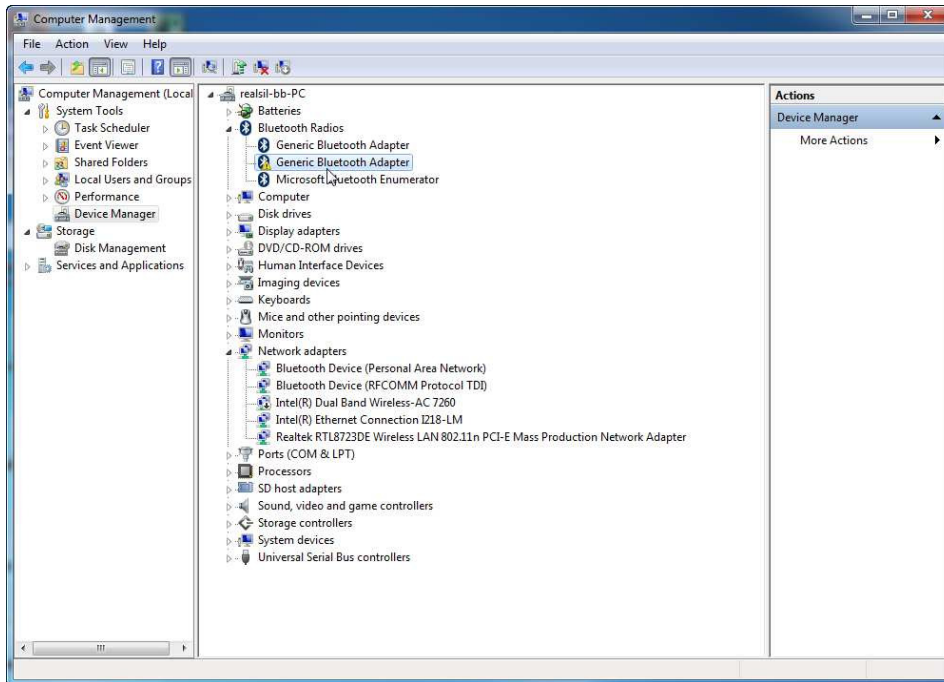
Please click “Uninstall” to remove RTL8723DE WLAN driver.



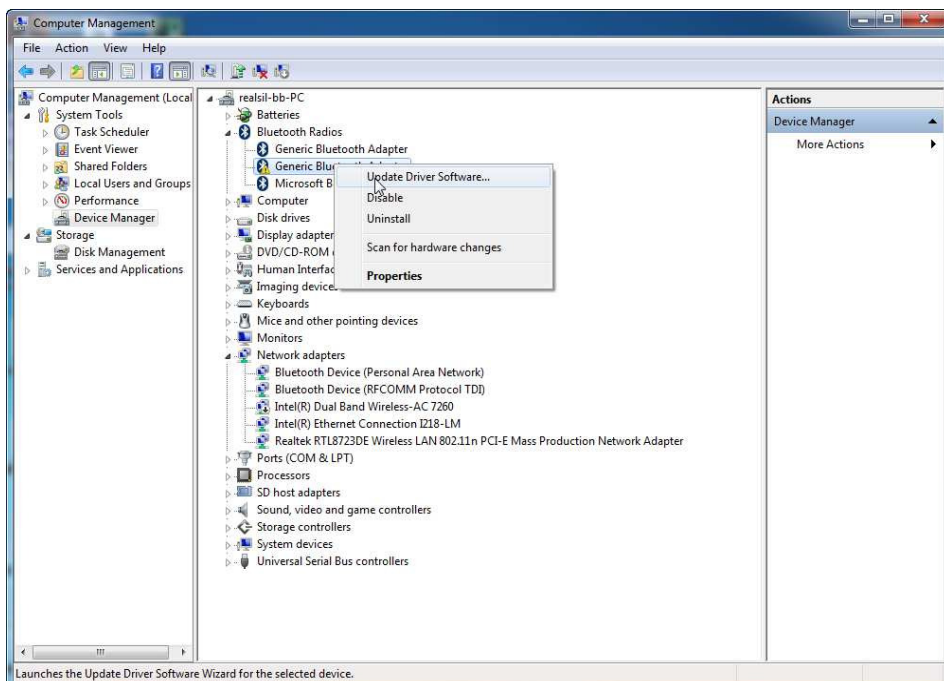
# Installing the Bluetooth USB Module

## Software

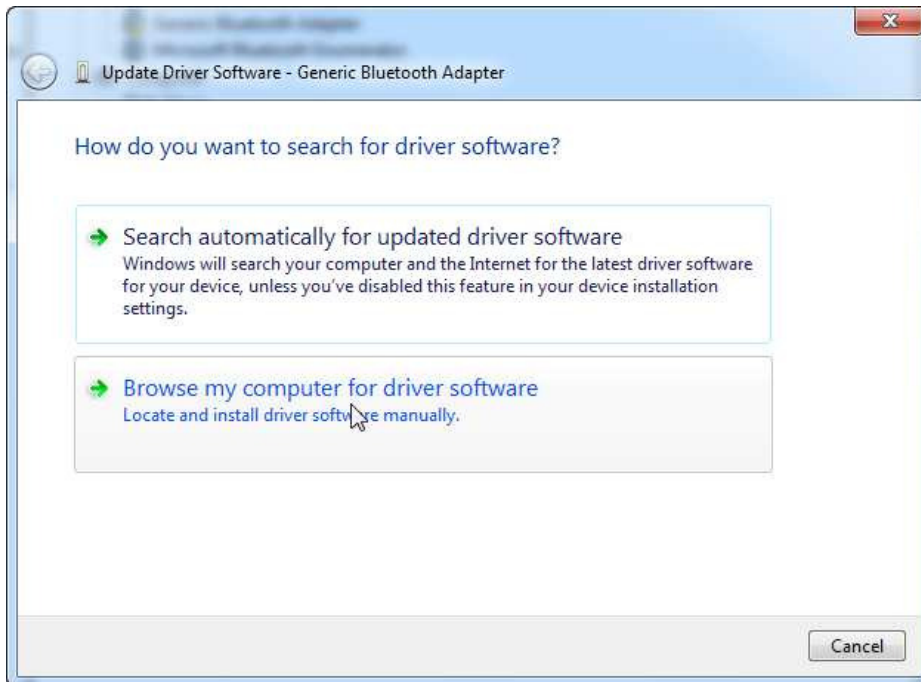
- A. Insert the NGFF1630 card into system connector.
- B. Boot on system then the “Generic Bluetooth Adapter” device will show up in device manager.



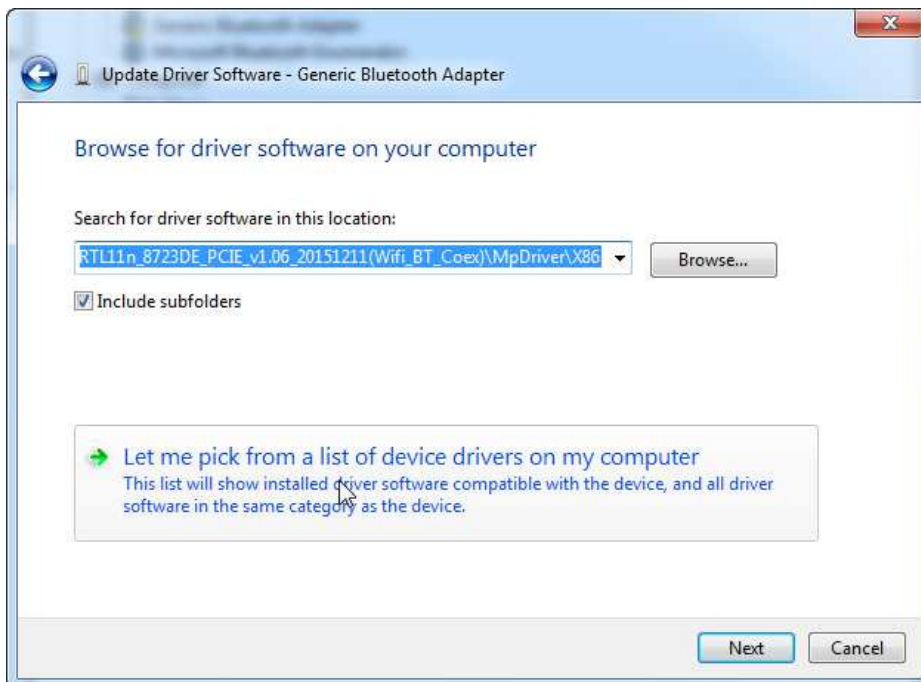
- C. Click right button on “RT Bluetooth Radio” and select “Update Driver”.



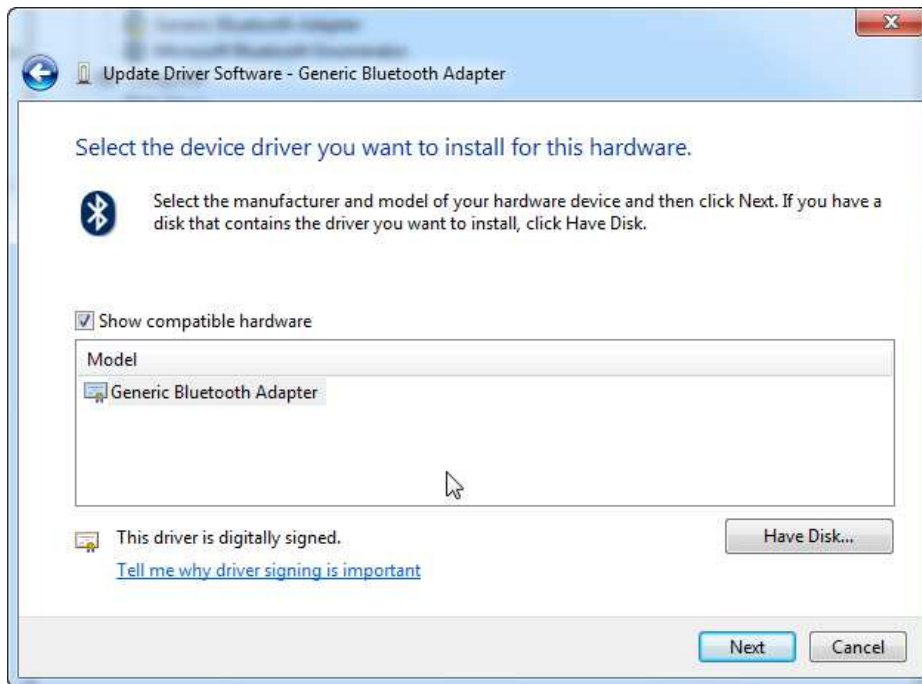
D. After select “Update Driver Software ” then the Hardware Update Wizard will pop up, please select “Browse my computer for driver software” and press Next button.



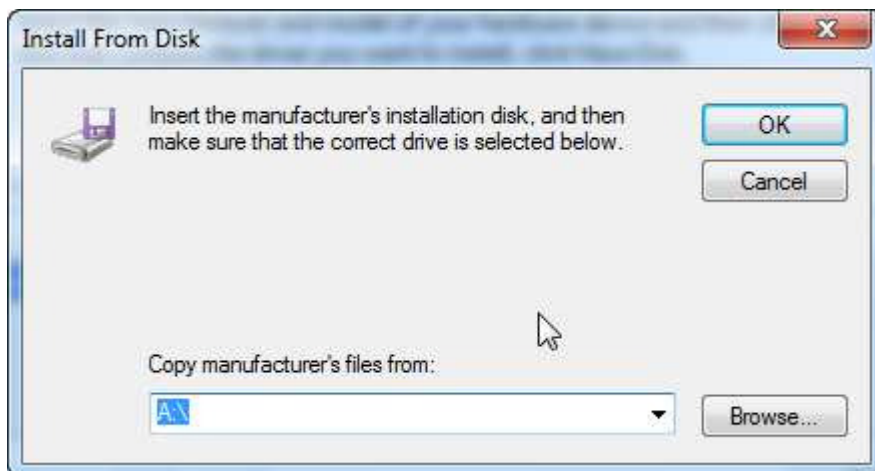
E. After step “D” please Select “Let me pick from a list of device drivers on my computer ”.

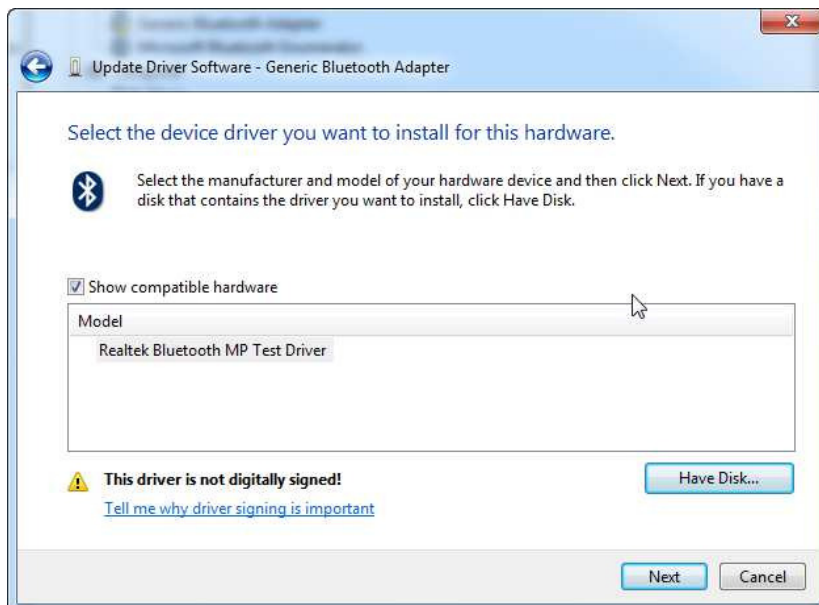
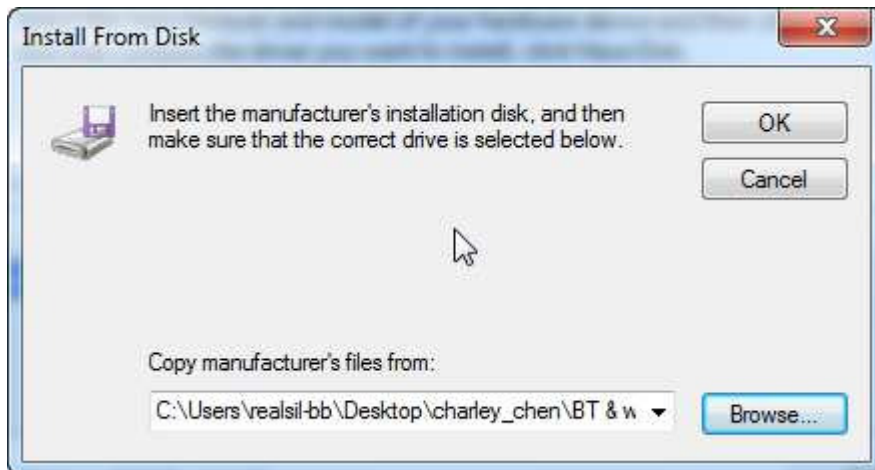
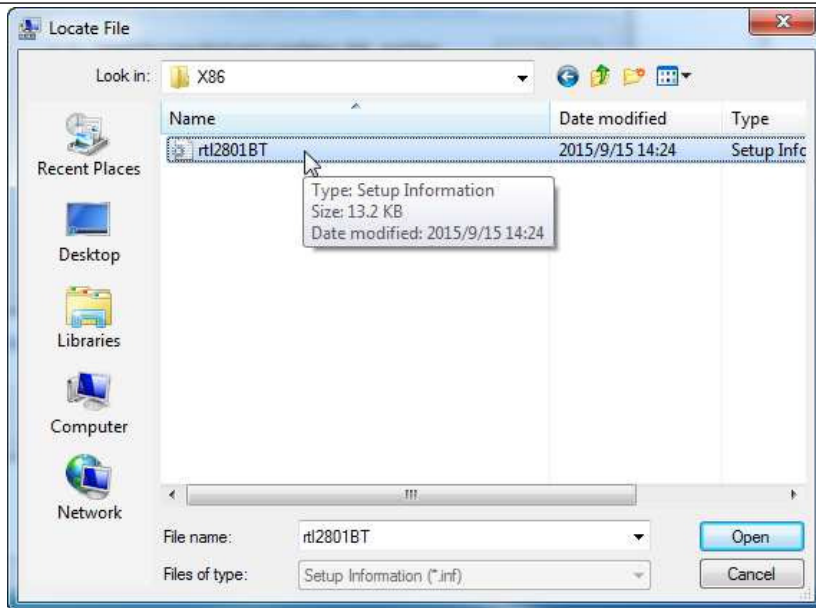


F. Finish step "E" then select "Have Disk.."

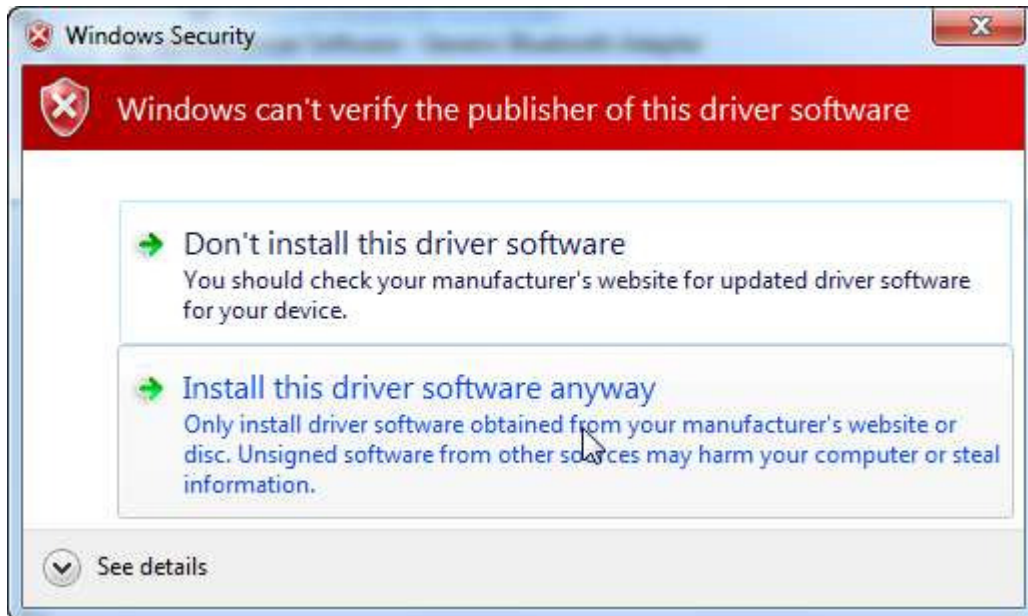


G. Now select browse to find the driver for device and press Next button.(The driver's locate is the same with WiFi driver )

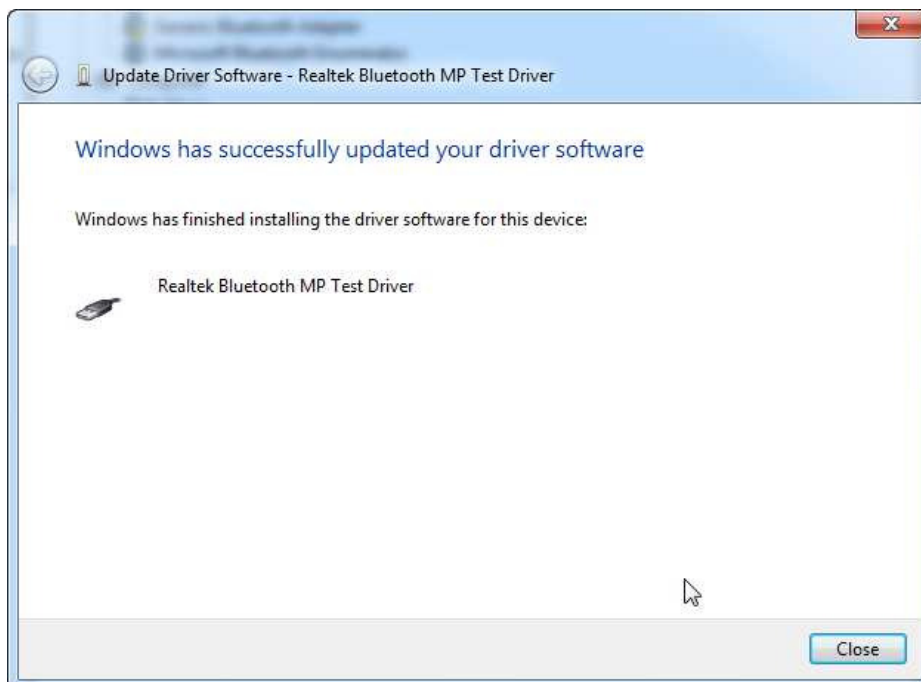




H. Then click “Install this driver software anyway” to continue.



I. Press close button to complete the install process and you can see the Driver will be show up in Device Manager.





## Federal Communication Commission Interference Statement

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.

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.

**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.

### IMPORTANT NOTE:

FCC 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 EUT is compliance with SAR for general population/uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C. This equipment should be installed and operated with minimum distance 0.5 cm between the radiator & your body.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 13.

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with FCC multi-transmitter product procedures.

This module is intended for OEM integrator. The OEM integrator is responsible for the compliance to all the rules that apply to the product into which this certified RF module is integrated. Additional testing and certification may be necessary when multiple modules are used.

Ant.	Brand	Model Name (P/N)	Antenna Type	Connector	Gain(dBi)
1	LYNwave	ALA110-222050-300011	PIFA	I-PEX	3.5dBi
2	PSA	RFDPA171320EMLB301	Dipole	I-PEX	3.14dBi

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

#### USERS MANUAL OF THE END PRODUCT:

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.

#### LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains TX FCC ID: TX2-RTL8723DE ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.

## Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s). 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

### French translation:

Ce dispositif est conforme aux CNR d'IndustrieCanada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

This device has been designed to operate with an antenna having a maximum gain of 3.5dBi.

Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the EIRP is not more than required for successful communication.

### French translation:

Ce dispositif a été conçu pour fonctionner avec une antenne ayant un gain maximum de 3.5 dBi. Une antenne à gain plus élevé est strictement interdite par les règlements d'Industrie Canada. L'impédance d'antenne requise est de 50 ohms.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

### **IMPORTANT NOTE:**

#### **IC Radiation Exposure Statement:**

This equipment complies with IC 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.

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French translation:

NOTE IMPORTANTE: (Pour l'utilisation de dispositifs mobiles)

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

For product available in the Canada market, only channel 1~13 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux Canada du marché, seul le canal 1 à 13 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with IC multi-transmitter product procedures.

Referring to the multi-transmitter policy, multiple-transmitter(s) and module(s) can be operated simultaneously without reassessment permissive change.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.

This module is intended for OEM integrator. The OEM integrator is still responsible for the IC compliance requirement of the end product, which integrates this module.

**USERS MANUAL OF THE END PRODUCT:**

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the IC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. 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.

## LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains IC : 6317A-RTL8723DE ".

The Host Model Number (HMN) must be indicated at any location on the exterior of the end product or product packaging or product literature which shall be available with the end product or online.

This radio transmitter (IC:6317A-RTL8723DE) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio(IC:6317A-RTL8723DE) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Ant.	Brand	Model Name (P/N)	Antenna Type	Connector	Gain(dBi)
1	LYNwave	ALA110-222050-300011	PIFA	I-PEX	3.5dBi
2	PSA	RFDPA171320EMLB301	Dipole	I-PEX	3.14dBi

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.


## NCC 警語

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。

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，指依電信法規定作業之無線電通信。

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。

本模組於取得認證後將依規定於模組本體標示審合格籤。

系統廠商應於平台上標示「本產品內含射頻模組： XXXyyyLPDzzzz-x (NCC ID) 」字樣。

## Japan Statement

Host system must be labeled with "Contains MIC ID:xxxxx", MIC ID displayed on label