# user manual

BLE USB DONGLE


1.Install BLE-CC254X-1.4.0.exe

2.Associate Driver with USB Dongle

After the software installation is complete, the USB Dongle driver must be associated with the device in order to use the demo application. To associate the USB Dongle driver, first you must connect the USB Dongle to the PC's USB port, or to a USB hub that connects to the PC.

The first time that the dongle is connected to the PC, a message will most probably pop-up, indicating that Windows does not recognize the device.
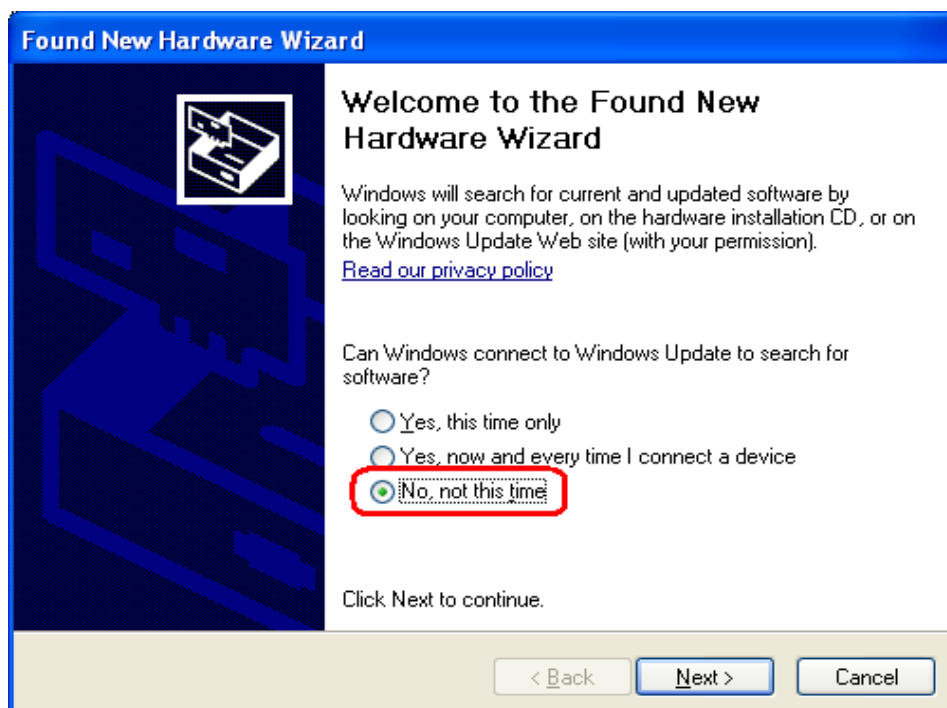
When prompted whether to use Windows Update search for software, select "No, not this time" and press the "Next" button. On the next screen, select the option "Install from a list or specific location (Advanced)", and press the "Next" button:
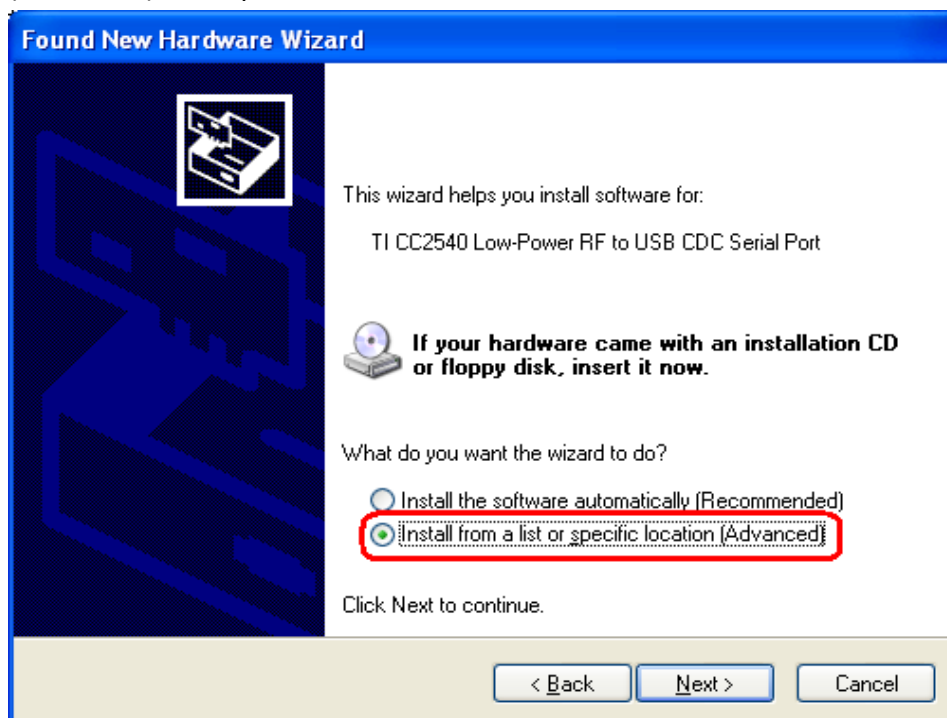
On the next screen, click the checkbox labeled "Include this location in the search:", and click the "Browse" button. Select the following directory (assuming the default installation path was used):
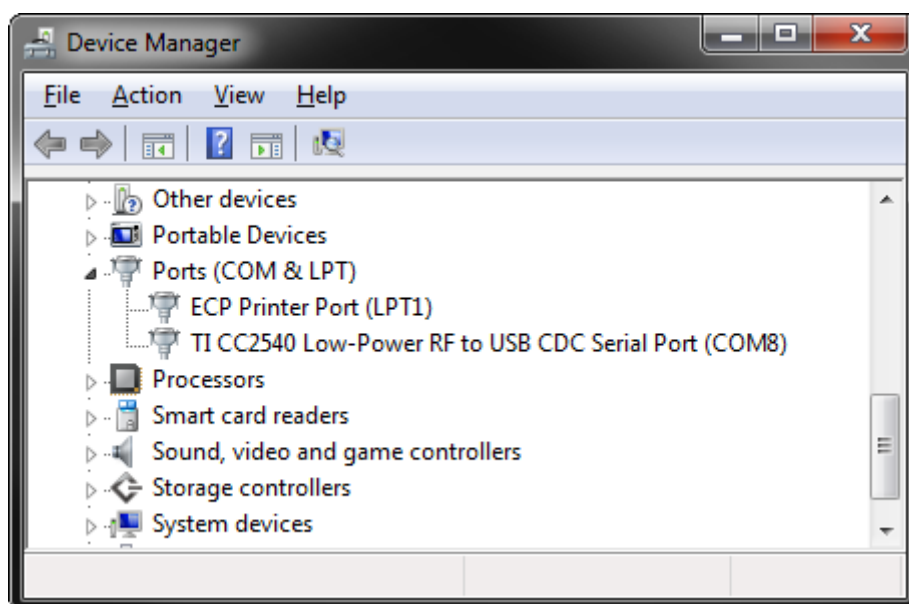C:\Texas Instruments\BLE-CC254x-1.4.0\Accessories\Drivers
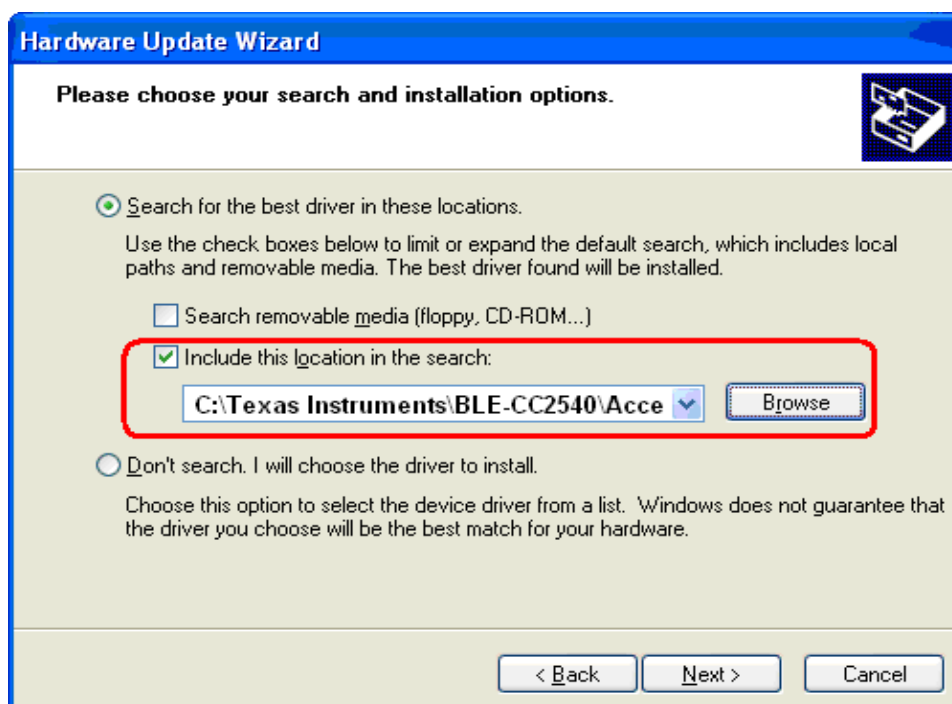
Click the "Next" button. This should install the driver. It will take a few seconds for the file to load. If the installation was successful, you should see the screen to the below. Click the "Finish" button to complete the installation.
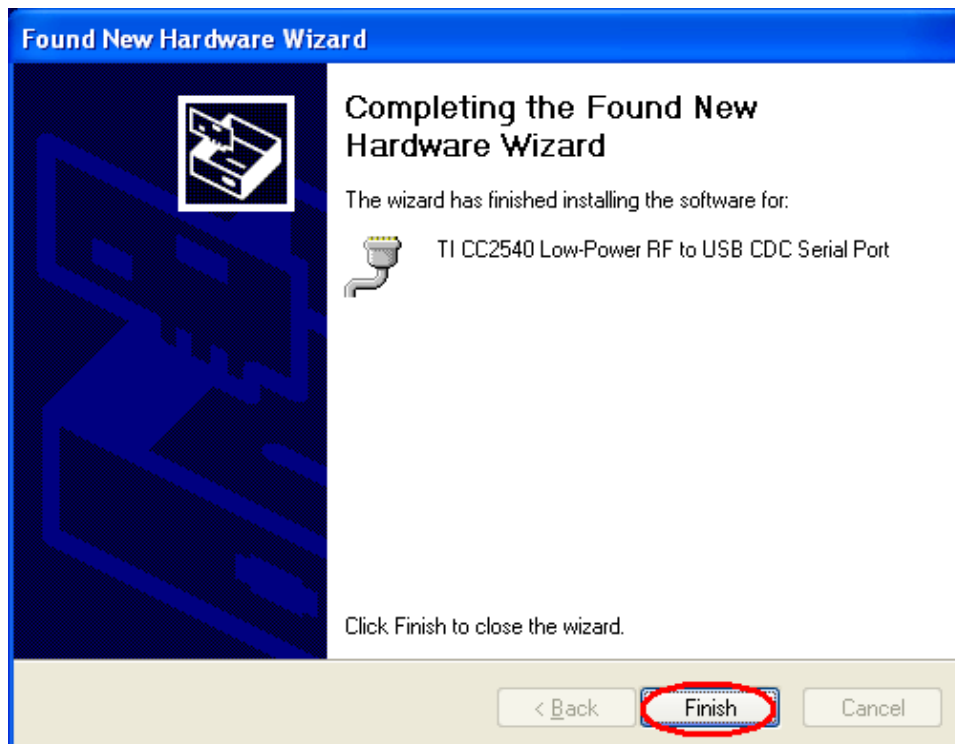
3. Determining the COM Port

Once the driver is installed, you need to determine which COM port Windows has assigned to the USB Dongle.

A list of all hardware devices should appear. Under the section "Ports (COM & LPT)", the device "TI CC2540 Low-Power RF to USB CDC Serial Port" should appear. Next to the name should be the port number (for example, the CC2540USB Dongle uses COM8).


Take note of this port number, as it will be needed in order to use BTool. You may close the device manager at this point.

4. Using BTool

To start the application go into your programs by choosing Start > Programs > Texas Instruments > BLECC254x-1.4.0 > BTool. On Start-up you should be able to set the Serial Port Settings. Set the "Port" value to the COM port. For the other settings, use the default values. Press "OK" to connect to the USB Dongle.
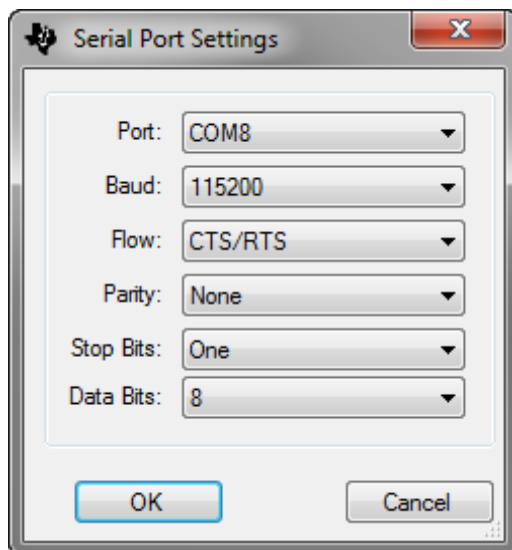
When connected you should see the screen presented. The screen indicates that you now have a serial port connection to the USB Dongle. The screen is divided up into a few sections: the left sidebar contains information on the USB Dongle status. The left side of the sub-window contains a log of all messages sent from the PC to the USB Dongle and received by the PC from the USB Dongle. The right side of the sub-window contains a GUI for control of the USB Dongle.
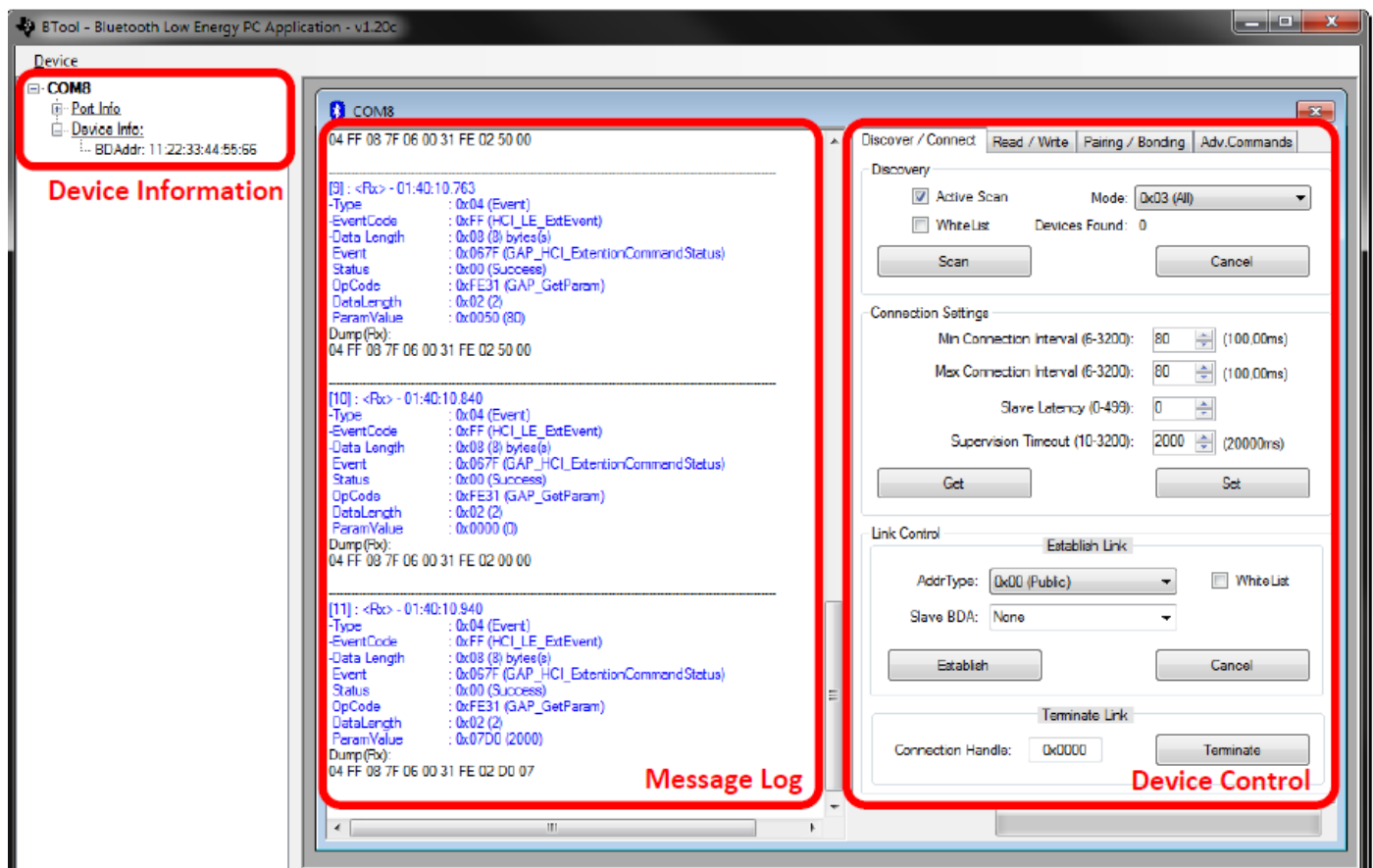
Federal Communication Commission Interference Statement

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 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.

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 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 device complies with Industry Canada licence-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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3 (B)/NMB-3(B)

TECHNICAL SPECIFICATIONS

Model Name	BT-420
Product Name	Bluetooth^R Low Energy USB Adapter
Standard	Bluetooth^R v4.0
IC	TI CC2540
Frequency Band	2.4GHz~ 2.4835GHz unlicensed ISM band
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Transfer Rates (Maz)	Max enhanced data rates of 250 Kbps
RF Output Power	4 dBm max.
Working Distance	Greater than 30 meters in free space
Sensitivity	<-82dBm at < 0.1% BER
Input power	DC 5V (via USB Port)
I/O Interface	USB
LED Indicator	Power / Active
OS Support	Win8
Environment	Operation temperature: -10 ^{o}C ~ + 55 ^{o}C
	Storage temperature: -10 ^{o}C ~ +70 ^{o}C
	Humidity: 5 ~ 90% non-condensing
Size	19.47 (L) x 16(W) x 8.1(H) mm
Weight	2.2g

FC Tested To Comply With FCC Standards FOR HOME OR OFFICE USE

CE 0700