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

Hardware Update Wizard				
Please choose your search and installation options.				
Search for the best driver in these locations. Use the check boxes below to limit or expand the default search, which includes local				
paths and removable media. The best driver found will be installed. Search removable <u>m</u> edia (floppy, CD-ROM)				
C:\Texas Instruments\BLE-CC2540\Acce V Browse				
Don't search. I will choose the driver to install.				
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.				
< <u>B</u> ack <u>N</u> ext > Cancel				

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.

😻 Serial Port Settings			
Port:	COM8 -		
Baud:	115200 ▼		
Flow:	CTS/RTS -		
Parity:	None		
Stop Bits:	One		
Data Bits:	8 🔹		
ОК	Cancel		

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.

😻 BTool - Bluetooth Low Energy PC Application - v1.20c			
Device			
Pevice □ COM8 ⊕ Post.Info ⊡ Device Info: □ BDAdd:: 11:22:33:44:55:65 Device Information	ation - v1.20c 04 FF 08 7F 06 00 31 FE 02 50 00 -Type :Display="block">COM8 :Display="block">Display="block">Commend Steller :Display="block">Display="block Display="block">Display="block">Display="block Display="block">Display="block">Display="block Display="block">Display="block" : Display="block" Display="block">Display="block" : Display="block" Display="block" : Display="block" Display="block" <t< th=""><th>Discover / Connect Read / Write Pairing / Bonding Adv.Commands Discovery Active Scan Mode: kt03 (4II) White List Devices Found: 0 Scan Cancel Connection Softinge Nin Connection Interval (6-3200): 80 (100.00ms) Max Connection Interval (6-3200): 80 (100.00ms) Slove Letency (0-499): 0 (100.00ms) Slove Letency (0-499): 0 (20000ms) Get Sca</th></t<>	Discover / Connect Read / Write Pairing / Bonding Adv.Commands Discovery Active Scan Mode: kt03 (4II) White List Devices Found: 0 Scan Cancel Connection Softinge Nin Connection Interval (6-3200): 80 (100.00ms) Max Connection Interval (6-3200): 80 (100.00ms) Slove Letency (0-499): 0 (100.00ms) Slove Letency (0-499): 0 (20000ms) Get Sca	
	Oump(Rx): 04 FF 08 7F 06 00 31 FE 02 00 00 [11]: <rx> - 01:40:10.940 -Tyoe : 0x04 (Evert) -EvertDode : 0x04 (Evert) -BvertDode : 0x057F (GAP_HCL_ExtEvent) -DataLength : 0x063(8) bytes(e) Evert : 0x057F (GAP_HCL_ExtEvent) -DataLength : 0x01(3xoccess) OpCode : 0x02(2) Peram/Value : 0x07D0 (2000) Dump(Rx): 04 FF 08 7F 06 00 31 FE 02 D0 07 Versage Log *</rx>	Link Control AddrType: (0x00 (Public) Slave BDA: None Establish Cancel Terminate Link Connection Handle: (0x0000) Terminate Device Control	

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.