



Device Firmware Upgrade (DFU) of RN52-EK using Microchip Bluetooth DFU Utility

1. Install the Microchip Bluetooth DFU Utility using the 'Microchip Bluetooth DFU Utility Installer.exe'. Make sure the utility installs successfully.
If performing DFU over USB, 'Bluetooth DFU USB Driver' should be selected for installation.
2. Download the appropriate Microchip Bluetooth DFU Image File (.dfu) for RN52 from www.microchip.com/rn52.

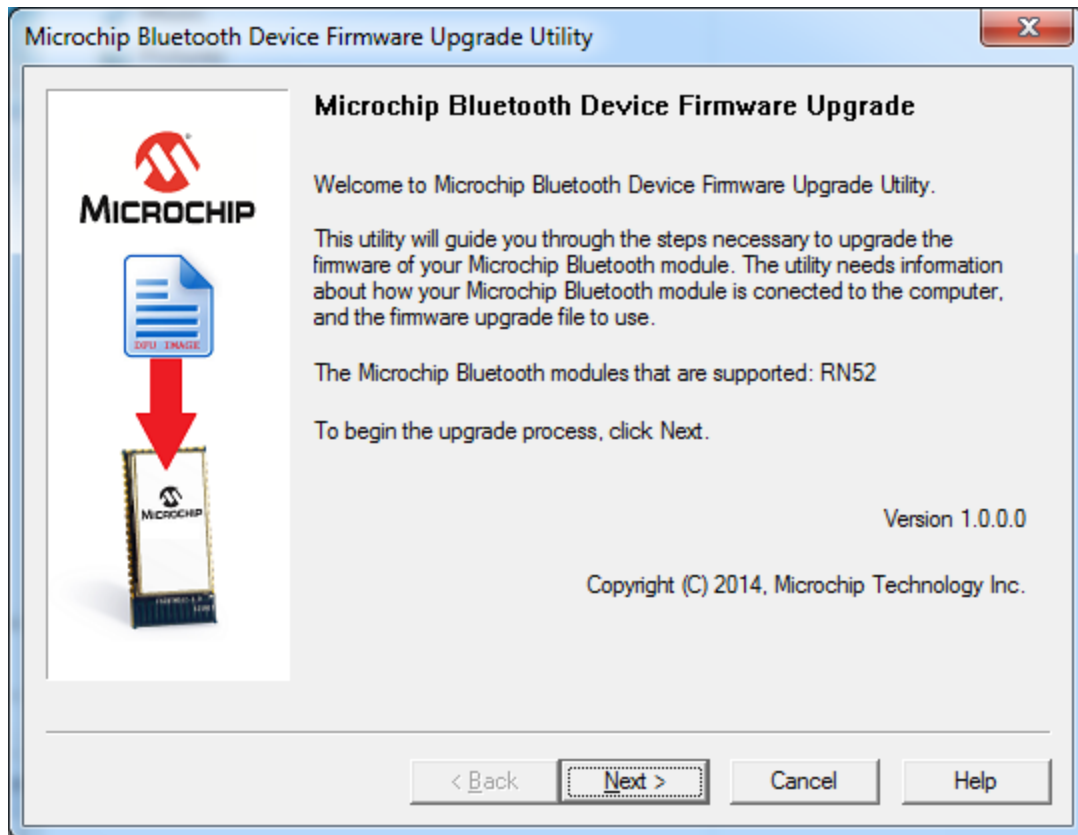
NOTE :

Some versions of the firmware support DFU over UART only and some support DFU over USB only. Please consult the release notes document of the firmware to determine the DFU transport type.

3. Disconnect Power from the RN52-EK board.
4. For DFU over UART, connect mini-B USB cable from host PC to RN52-EK UART USB port (USB-UART bridge).
For DFU over USB, connect mini-B USB cable from host PC to RN52-EK RSVD USB port.
5. Hold power button down until both BLUE and RED LEDs toggle blink.
For DFU over UART, assert GPIO3 on RN52 high at boot time. The device will enter DFU mode in 3 seconds. The GPIO3 should be asserted high only before the device enters DFU mode and not after. This can be achieved by connecting the mini-B USB cable from host PC to RN52-EK RSVD USB and then unplugging it before 3 seconds. For DFU over USB, assert GPIO3 on RN52 high. This can be achieved by connecting the mini-B USB cable from host PC to RN52-EK RSVD USB as indicated in step 4.

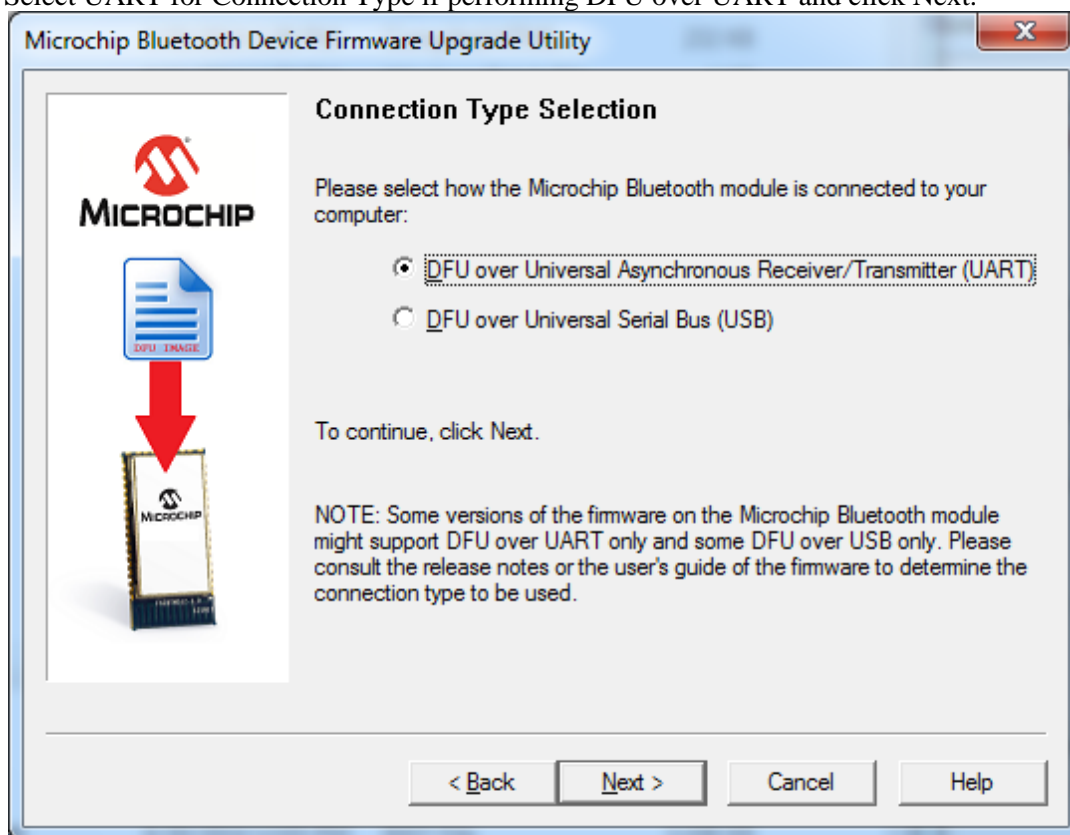


6. Launch the Microchip DFU Utility using the Desktop short cut.
7. The Microchip DFU Utility will open as shown below. Click Next.

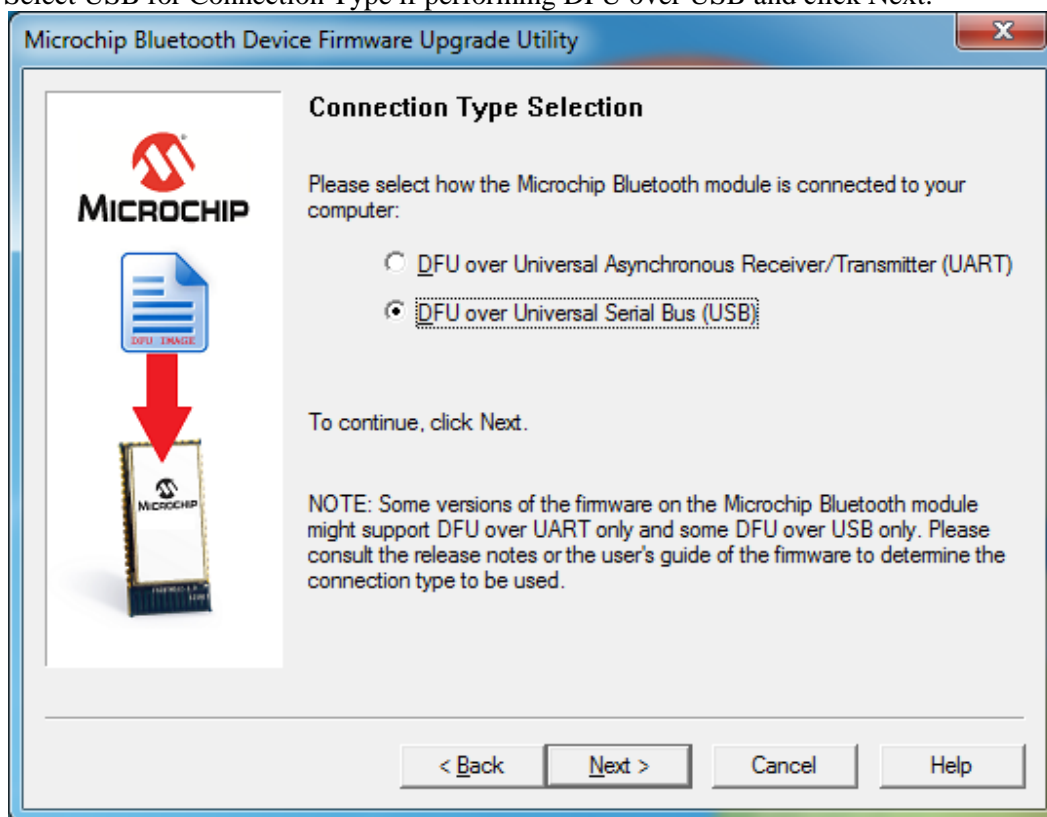




8. Select UART for Connection Type if performing DFU over UART and click Next.

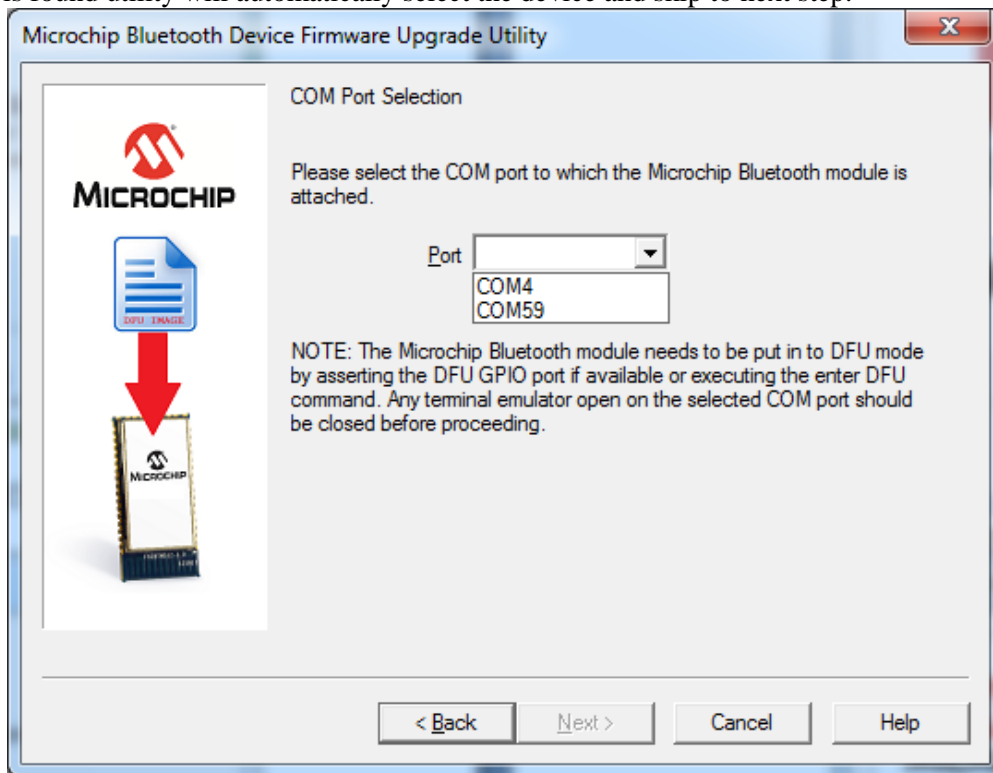


- Select USB for Connection Type if performing DFU over USB and click Next.

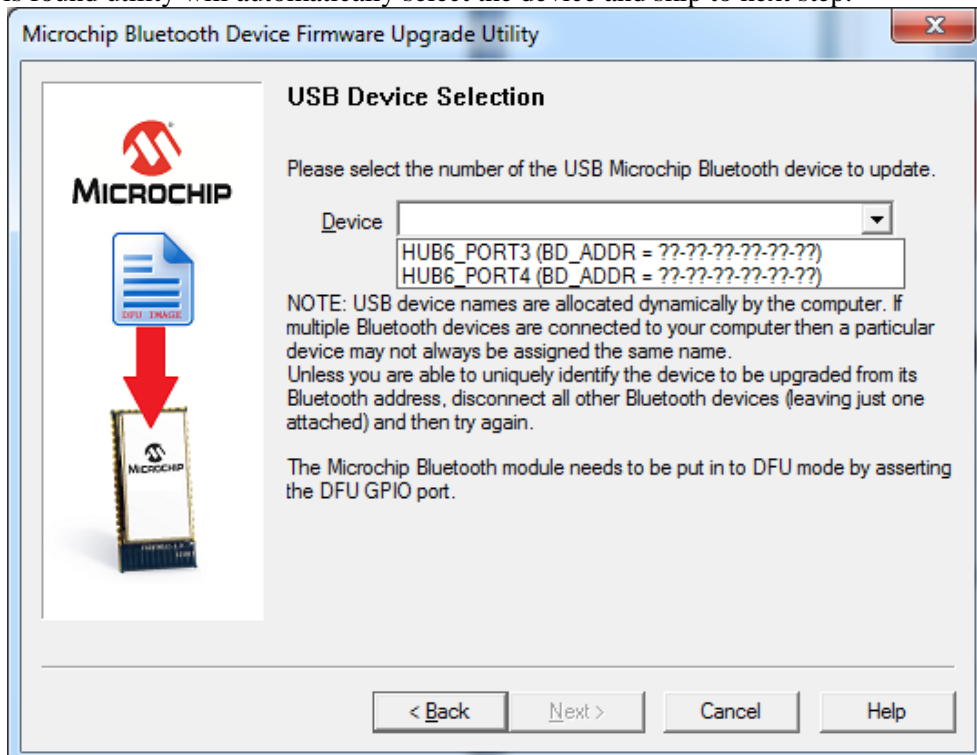




9. Microchip DFU Utility will scan for the COM devices if UART was chosen for Connection Type. If it is found, following is displayed to select from. If only one device is found utility will automatically select the device and skip to next step.

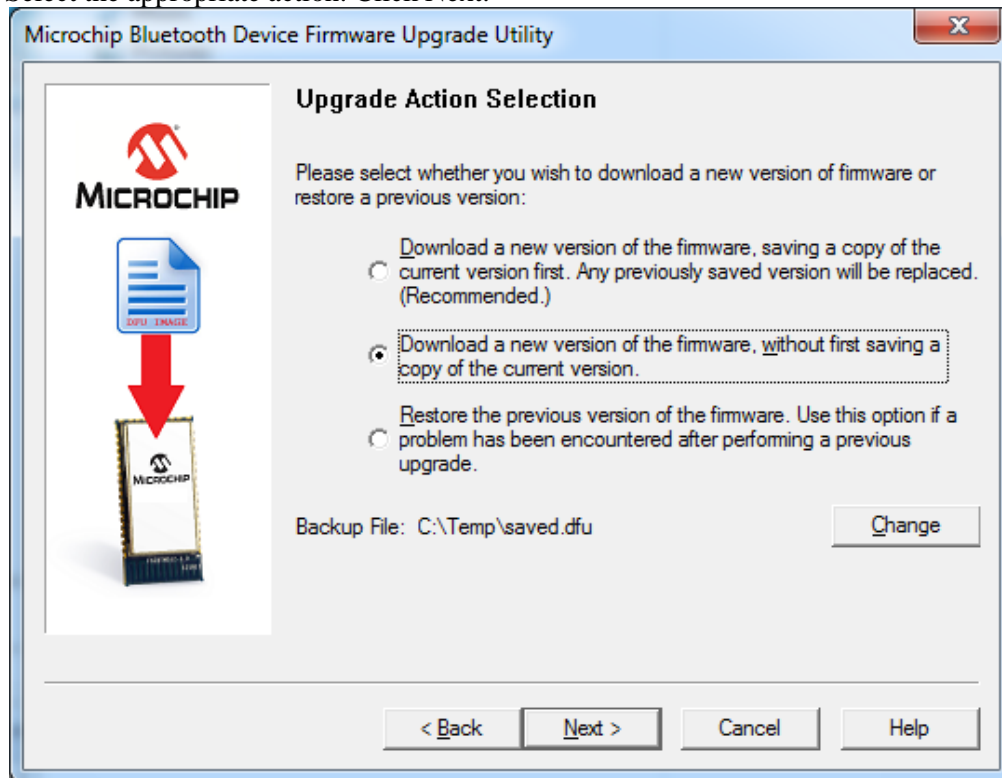


Microchip DFU Utility will scan for the DFU USB device if USB was chosen for Connection Type. If it is found, following is displayed to select from. If only one device is found utility will automatically select the device and skip to next step.

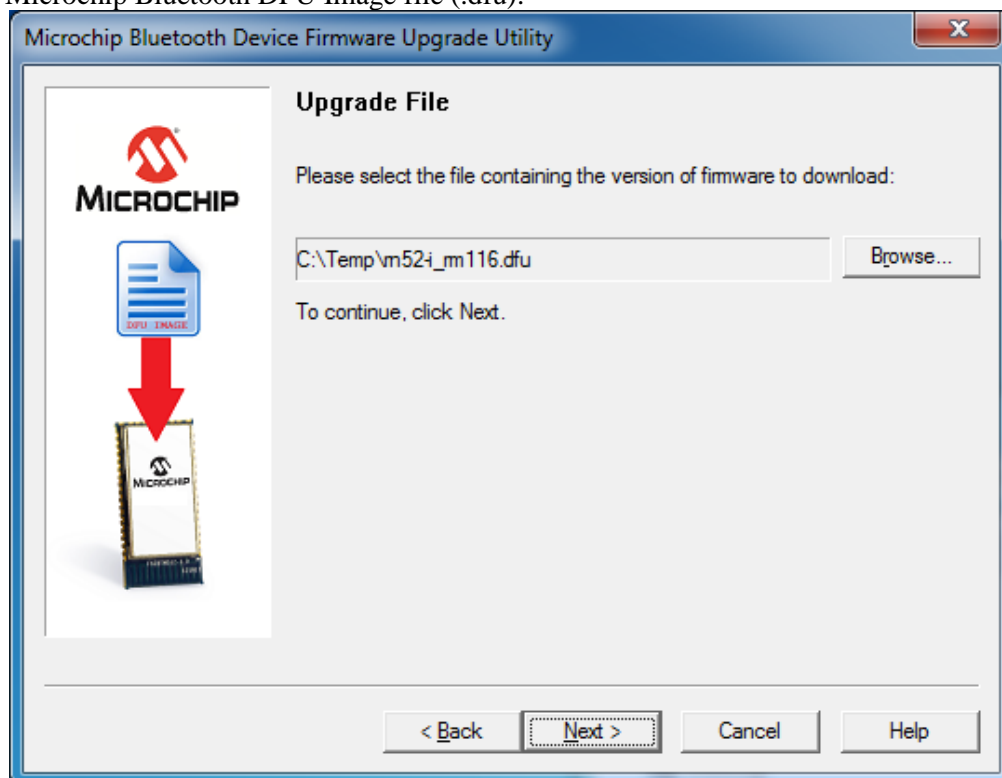




10. Select the appropriate action. Click Next.



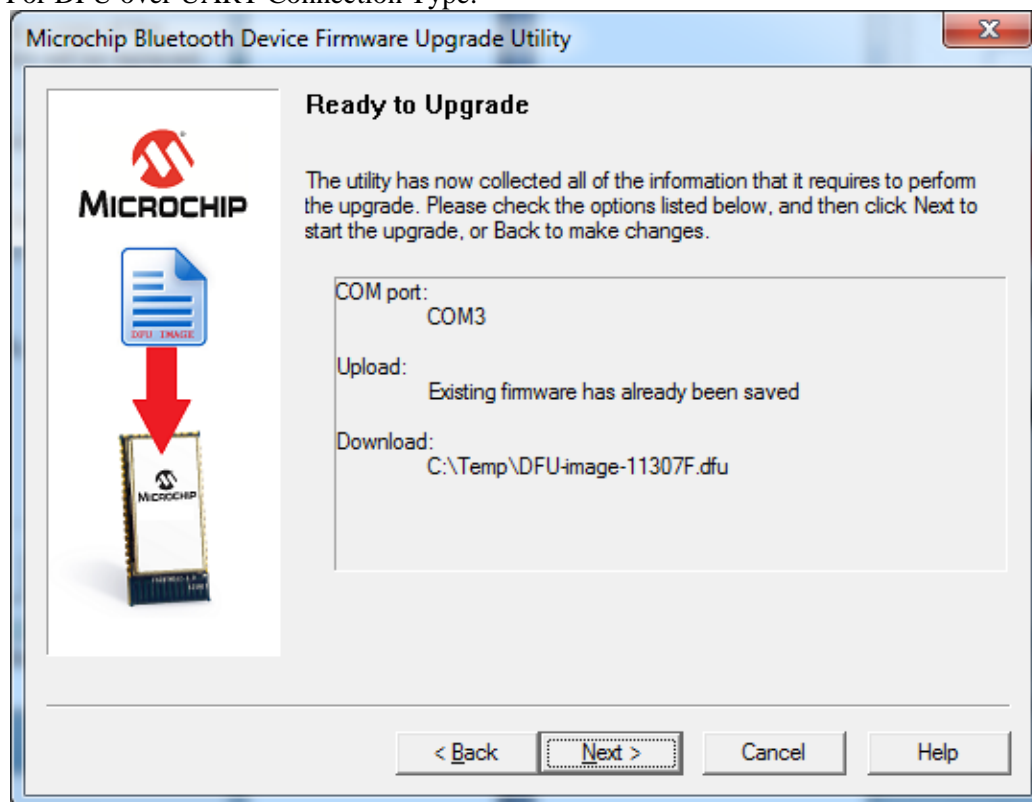
11. The following screen is displayed below. Click the Browse Button and select the Microchip Bluetooth DFU Image file (.dfu).



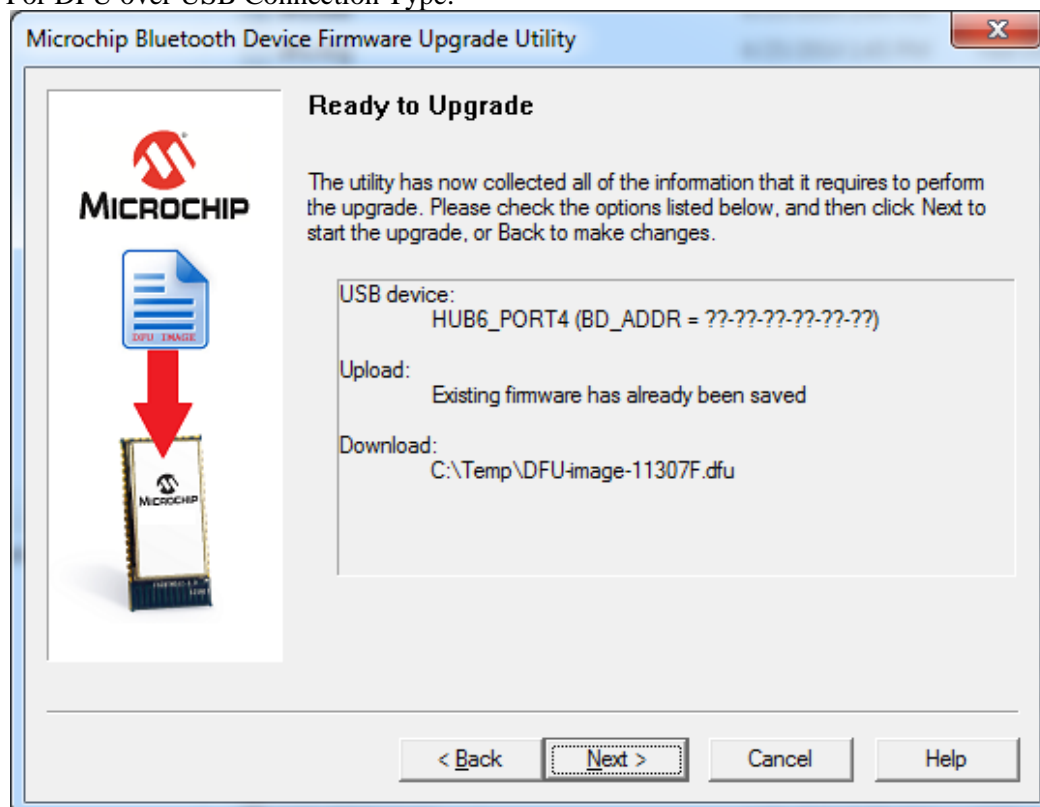


- Click Next to advance to the Next screen as shown below. Make sure this is the correct DFU image.

For DFU over UART Connection Type:

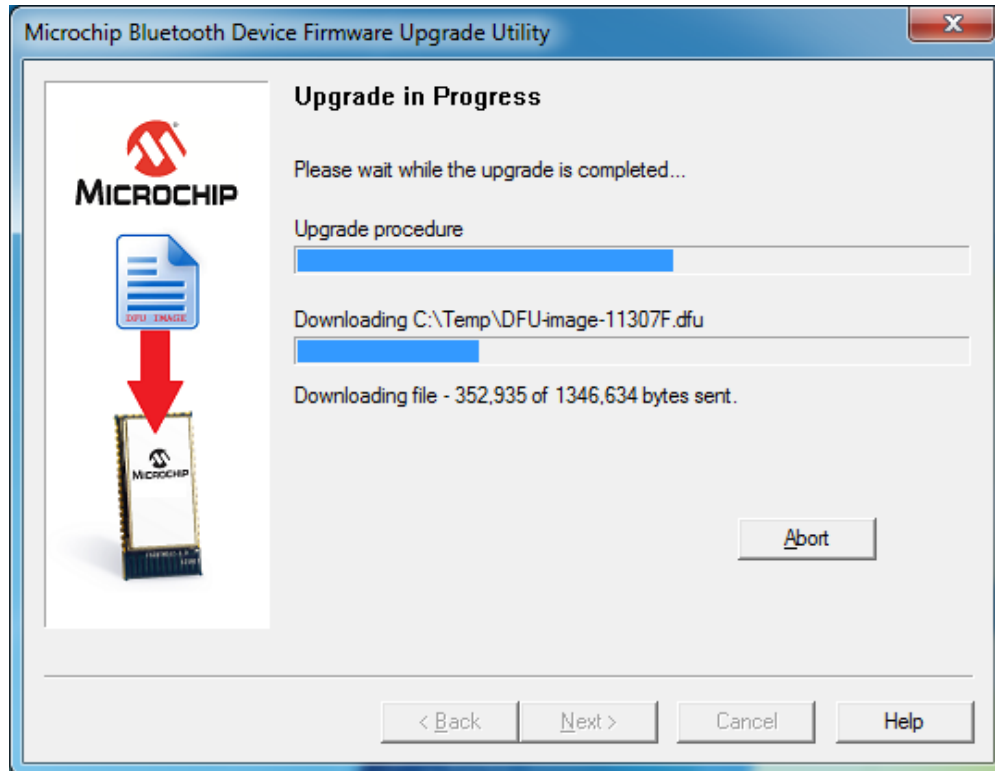


For DFU over USB Connection Type:



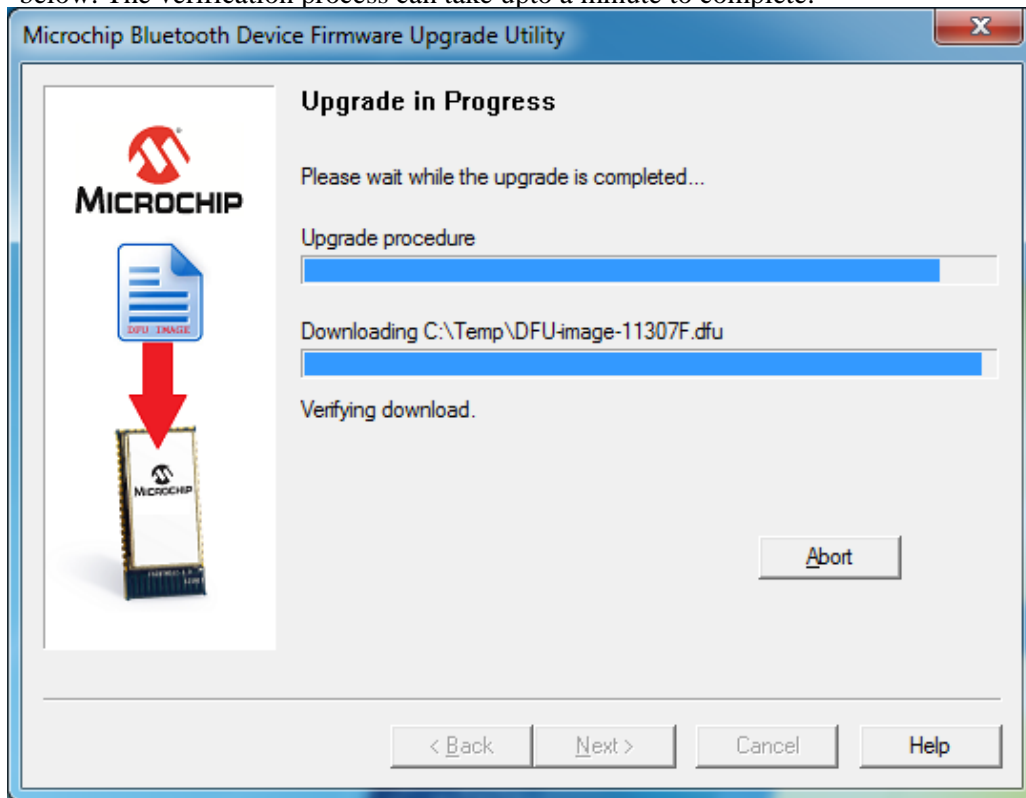


13. Hold the power button down on the RN52-EK before proceeding.
14. Click Next to start the upgrade process. Once upgrade is started the power button can be released.
15. While DFU image is being programmed, the window with progress bars is displayed. The held power button on the RN52-EK may be released after the firmware starts downloading and the screen visually indicates the downloading progress in the progress bars.





16. When programming is complete, Microchip DFU Utility will verify download as shown below. The verification process can take upto a minute to complete.



17. After upgrade process is complete, click Finish button on the final screen. Connect the mini-B USB cable to UART USB port and cycle power.

