

Installation & First Scan

1 Download the Open Source software and unzip into a folder. SDK link is on the right.

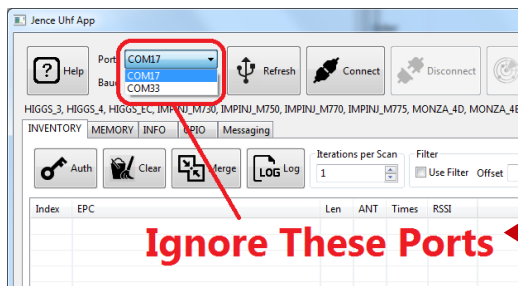
2 If you do not have Java in your PC, install it at this time. Download Java for your OS and follow the instruction. Java download link (only 64-bit is supported) on your right.

3 Windows: run the application **j4210u.exe**
Mac OS X: run the **UhfApp** App located in the folder **platform/macosx**.

Linux or Linux based OS found in Raspberry Pi, Orange Pi, Banana Pi, BeagleBone: run the shell script **j4210u.sh**.

4 If the UhfApp demo runs and a GUI is displayed similar to this (right), we now need to connect to the device.

5 Do NOT connect the device yet. Click the **Refresh** button. You may or may not see Serial Ports listed. Ignore the listed Serial Ports because they are not related to our device as it is not connected yet. (Example below)



JAVA

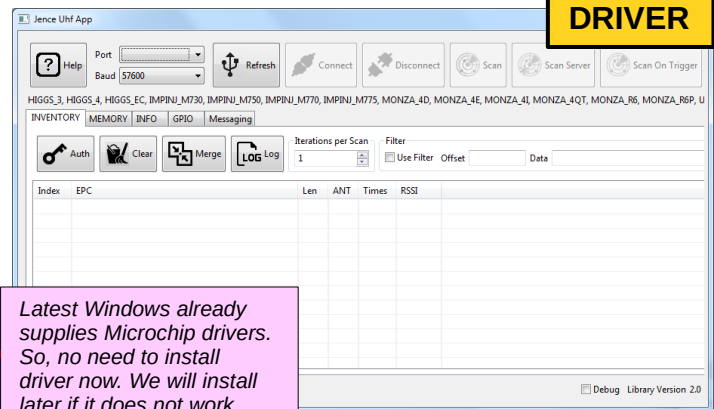
SDK

<https://github.com/jence/j4210u-app>

<https://www.oracle.com/java/technologies/downloads/>

Driver is located in driver directory of the SDK.

DRIVER



6 Now **CONNECT** the provided USB cable of the device to your PC and the other end to the device's USB port. Then click on the **Refresh** Button again.

7 If a new Serial Port appear after the device is connected, that is the port related to the device. Hit the **Connect** button to connect to the device and **SCAN**.

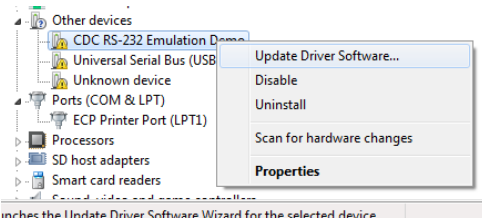
In this Example, there are already 2 ports before attaching device. So, these cannot be the device port.

8 Don't see NEW Serial Port ? Install Windows 64-bit Driver NOW from driver directory.

WINDOWS

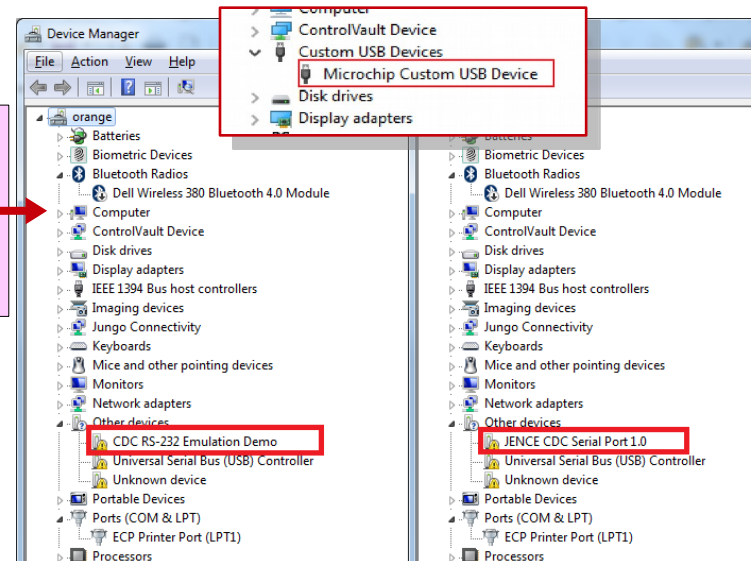
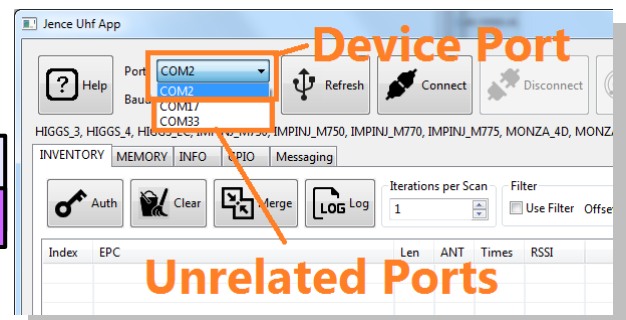
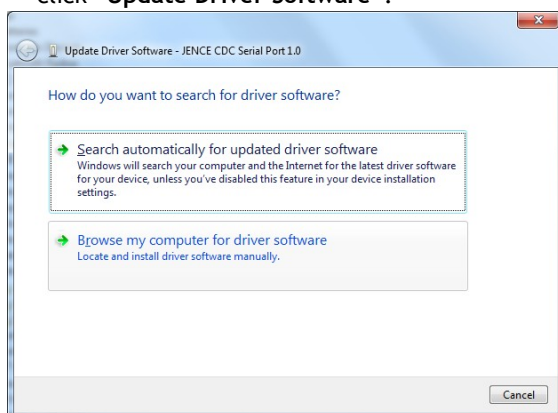
9 In Windows Search, type "device" then click on "Device Manager" application while the device is connected through USB.

10 If port attached, **DONE**. Otherwise, you will see one of the two entries shown on the right or below. These entries are created whenever the device is connected to the USB port.



If a new entry appears after attaching the device, that is the entry you need to right click on. The entry may not exactly match what is shown here.

11 Make sure by disconnecting and reconnecting the USB that this entry is due to this device. Right click on the entry and click "Update Driver Software".

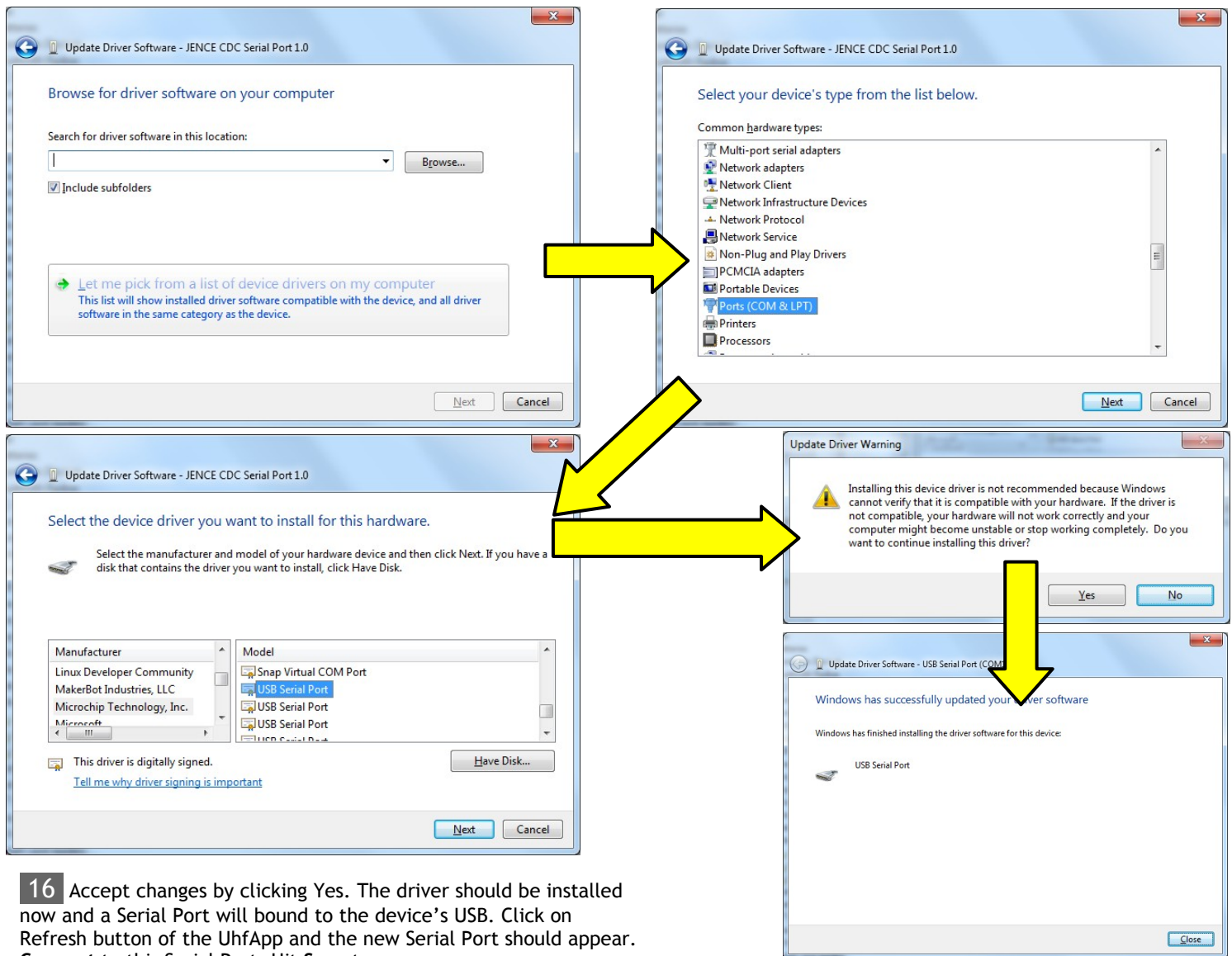


12 Choose the "Locate and install driver software manually"

13 Choose "Let me pick from a list of device drivers on my computer"

14 Scroll down and select **Ports** entry.

15 Scroll down and select **Microchip Technology Inc** on the left and **USB Serial Port** on the right.



16 Accept changes by clicking Yes. The driver should be installed now and a Serial Port will bound to the device's USB. Click on Refresh button of the UhfApp and the new Serial Port should appear. Connect to this Serial Port. Hit Scan to scan.

MAC OSX: No specific action is required. For MAC OSX 10.3 or earlier, install Microchip USB driver from Microchip site.

LINUX

MAC OSX

Linux (All Flavors): Linux should auto detect a USB Serial and bind a tty* port. If it doesn't, then go to the j4210u.pdf (in doc folder) and see the Linux portion of Setup for solution.

ARDUINO

Arduino & Energia: Arduino & Energia both use the same C++ code. The external UART is used to connect to the device.

What's Included (1) UHF RFID Reader/Writer Device, (2) USB Cable, (3) GPIO Cable (J4212U & J4220UX only), (4) UART Cable (J4212U & J4220UX only), (5) UHF RFID Tag(s) (1 or more Tags)

WINDOWS: In Step 15, USB Serial Port does not appear to the right !

17 Install the Windows 64-bit driver located in driver directory of the SDK.

18 On Linux, upon connecting the UHF Reader to the USB port, a tty port will appear which looks like **tttyACM*** in the /dev folder. Connect your UHF Reader to your Linux PC's USB port and type (in a console):

```
ls -alF /dev/ttyACM*
```

this should show all the USB Serial Ports available. If none is found, you can force the **cdc_acm** to fire as follows:

```
sudo rmmod cdc_acm
sudo modprobe cdc_acm
sudo lsmod | grep cdc
sudo dmesg | grep ttyACM
ls /dev/ttyACM*
```

This step should fix the ACM issue and you should see a new **ttty** port attached to the Linux PC.