

Installing the virtual COM port driver software on a computer makes possible CAT communication via a USB cable to the FT-991 transceiver. This will allow computer control of TX (PTT, KEY, FSK), and updating the FT-991 firmware.

The FT-991 transceiver have two virtual COM ports, which can be used for CAT communication and TX control operations.

This installation program is provided by [Silicon Labs, Inc.](http://www.siliconlabs.com)

Please read this entire manual carefully. If you agree to the content of this manual, download and install the virtual COM port driver.

Operating Environment

Supported Operating Systems

- Microsoft® Windows® 8.1
- Microsoft® Windows® 8
- Microsoft® Windows® 7
- Microsoft® Windows Vista® (Service Pack 1 or later)
- Microsoft® Windows® XP (Service Pack 3 or later)

Port

USB port (USB1.1/USB2.0)

Cable

Use a commercially available AB USB cable

Installing the Virtual COM Port Driver

Caution: Do not connect the transceiver to the computer via the USB cable until the virtual COM port driver installation process has been completed. Connecting the transceiver to the computer via the USB cable before the driver installation has been completed may result in the wrong driver being installed, preventing proper operation.

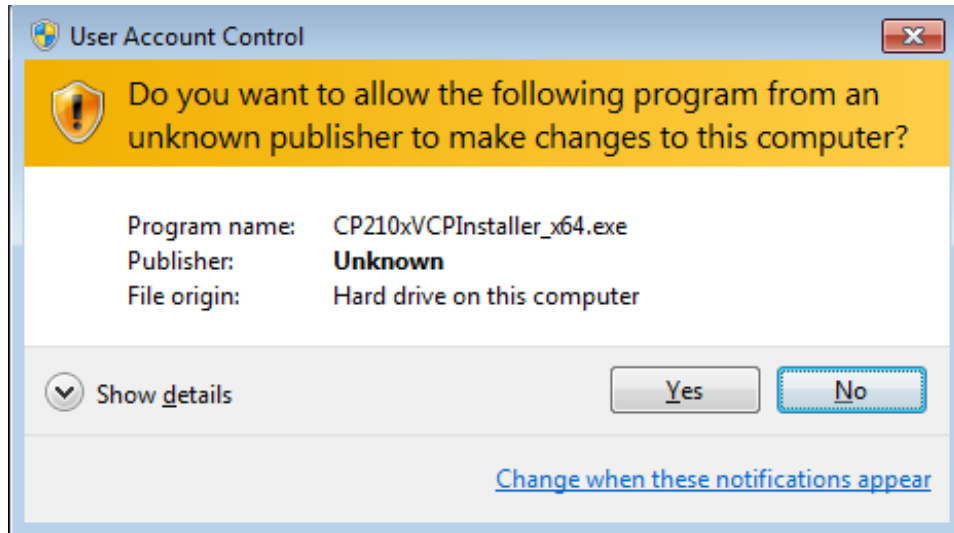
When you unzip the “CP210x_VCP_Windows.ZIP” file, “CP210xVCPInstaller_x64.exe” and “CP210xVCPInstaller_x86.exe” will be generated. Choose the appropriate file depending on the OS version of your computer as follows:

- OS for 64 bit version : “CP210xVCPInstaller_x64.exe”
- OS for 32 bit version : “CP210xVCPInstaller_x86.exe”

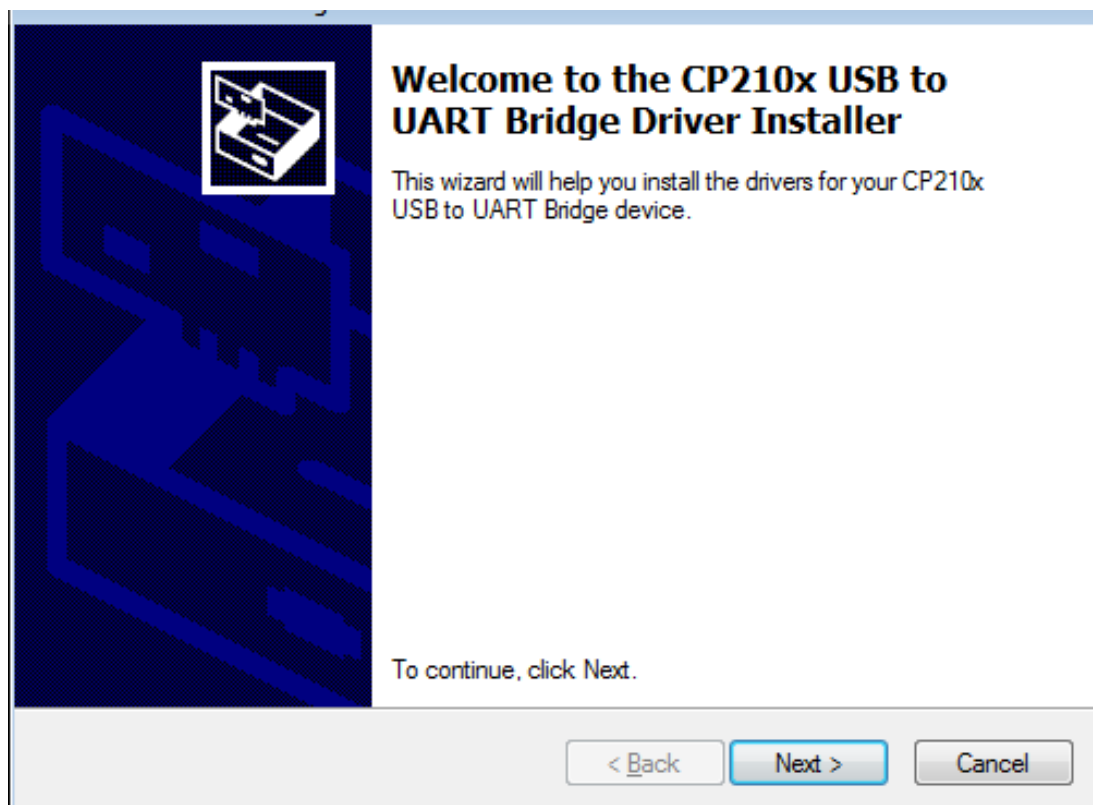
The procedure for installing the virtual COM port driver on a Windows® 7 (64 bit version) system is shown below

1. Start Windows® 7.
2. Shut down all running applications.
3. Unzip the downloaded (CP210x_VCP_Windows.ZIP) file.
4. Run the installation program (CP210xVCPInstaller_x64.exe) by double-clicking it. The following window will appear. Click the "Yes (Y)" button.

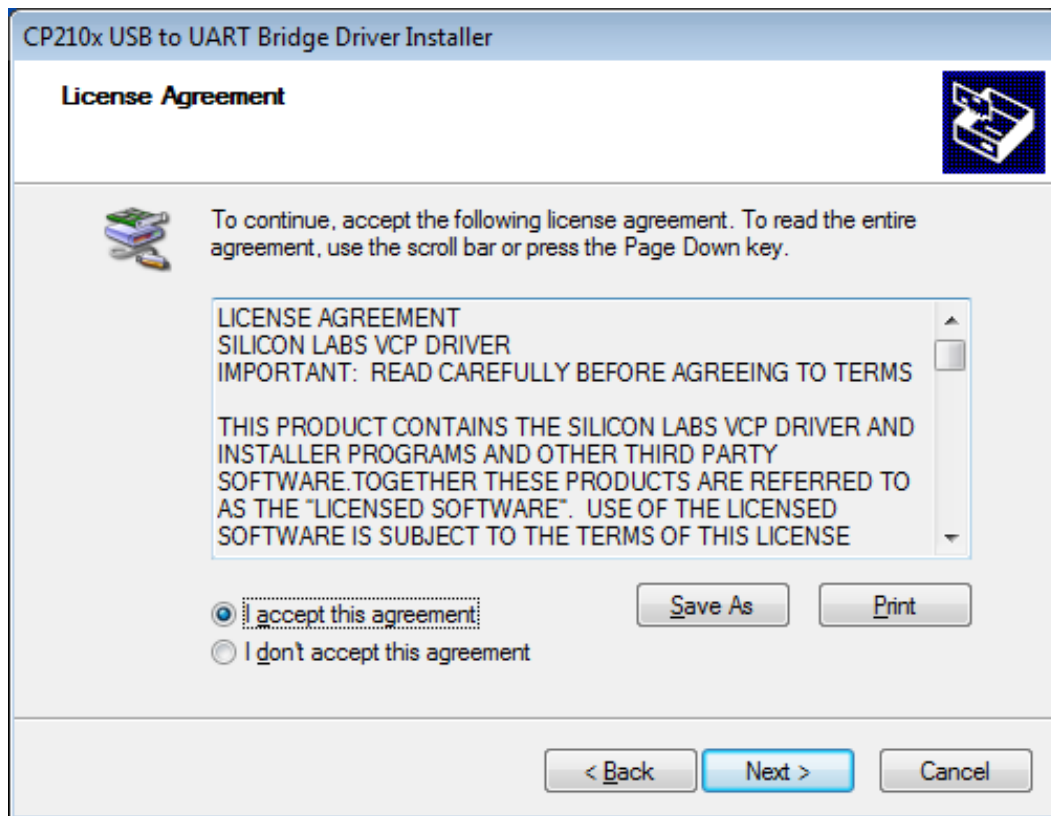
* If the OS version of your computer is 32 bit version, you must choose "CP210xVCPInstaller_x86.exe"



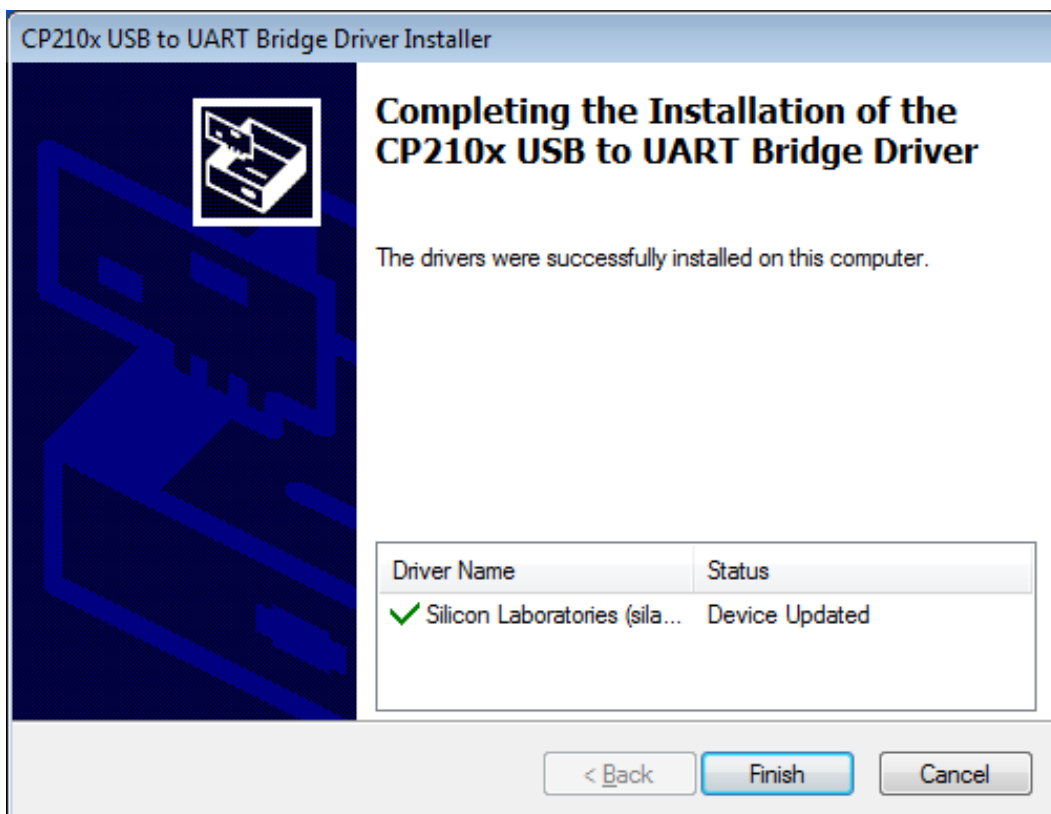
5. The following window will be displayed. Click the "Next >" button.



6. The “License Agreement” window will be displayed. Please read the License Agreement, and, if you agree to the terms therein, click the checkbox next to “I accept this agreement”, and click the “Next >” button.



7. The “Completing the Installation of the CP210x USB to UART Bridge Driver” window will be displayed. Click the “Finish” button.

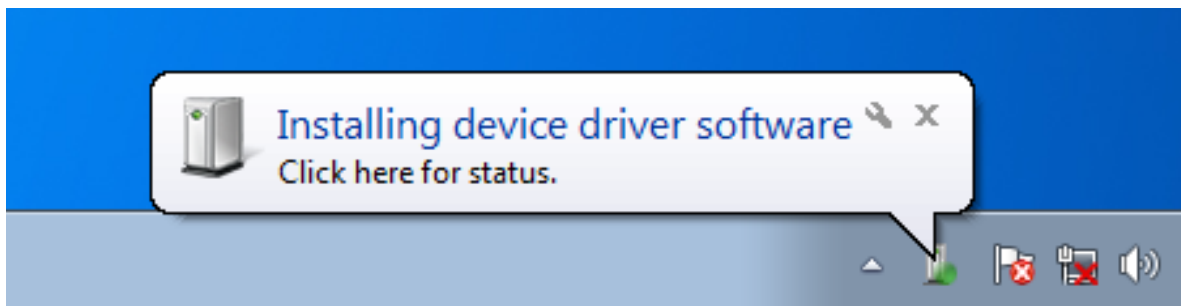


8. This completes the driver installation process.

Connecting the Transceiver and the Computer

Connect the computer and the transceiver via USB cable, and then turn the transceiver on.

A message such as the one below will be displayed, and the computer will recognize the new hardware and automatically begin device driver installation.



When “Your devices are ready to use” appears, installation has been completed.

A reboot confirmation window may be displayed on some computers. If this window appears, follow the on-screen instructions and reboot the computer.

Once the computer has been rebooted, the virtual COM driver and USB audio driver will be installed.

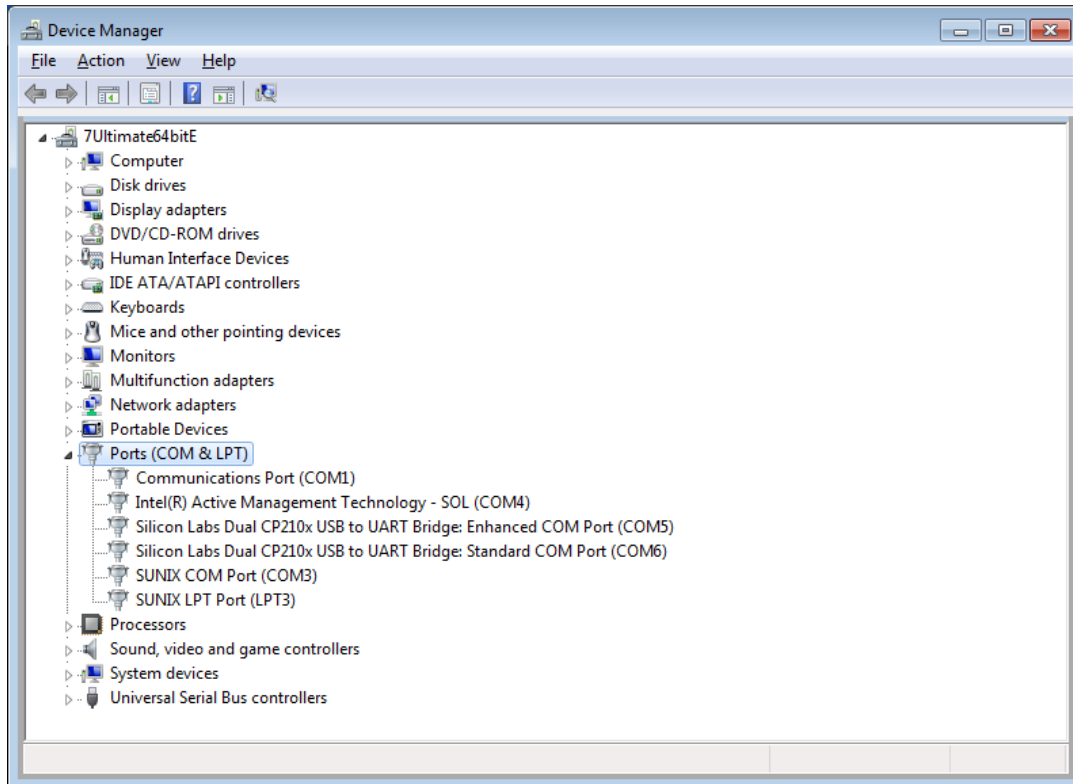
(The standard Windows® USB audio driver will be automatically installed, so you do not need to specify which driver to use.)

How to Confirm the Installation, and the COM Port Number

With the transceiver and computer connected, confirm whether the virtual COM driver has been installed successfully.

The example below is for Windows® 7.

1. Click the Windows® “Start” button → Right-click “Computer” → Click “Properties (R)”.
2. Click “Device Manager” on the window that appears.
3. On the Device Manager screen, double-click “Port (COM & LPT)”.



「Silicon Labs Dual CP210x USB to UART Bridge : Enhanced COM Port (COM5)」

「Silicon Labs Dual CP210x USB to UART Bridge : Standard COM Port (COM6)」

The number in the “(COM*)” portion may vary from computer to computer.

FT-991 transceiver contain two virtual COM ports, an Enhanced COM Port and a Standard COM Port. These ports offer the following functions.

- CAT communications and firmware updating Enhanced COM Port
- TX control (PTT, KEY, FSK)..... Standard COM Port

The above window shows that COM5 can be used for CAT communications and firmware updating, and COM6 can be used for TX control (PTT, KEY, FSK).

When performing software port configuration, select the COM port numbers that were confirmed using the procedure above.

Caution:

- If a “!” or “X” is displayed for the port on the Device Manager, uninstall and reinstall the virtual COM driver.
- If an FT-991 with a different serial number is connected and turned on, different COM port numbers will be assigned to it, making it possible to perform individual COM port configurations for separate transceivers.
- When using the USB cable for TX control, the transceiver may switch to the transmit mode when the computer is started.
- Always close the application on the computer before disconnecting the USB cable.

Agree and Download

Download the virtual COM port driver installation program from our download site if and only if you agree to all of the above.

The latest version of the virtual COM port driver can be downloaded from the Silicon Labs, Inc. website (<http://www.silabs.com/products/mcu/pages/usbtouartbridgevcpcdrivers.aspx>).

Click “VCP Driver Kit” on the above webpage.

(The above Silicon Labs, Inc. website link URL current as of February, 2015.)

Uninstalling the Driver

The procedure for uninstalling the virtual COM port driver on a Windows® 7 system is shown below.

1. Click the Windows® “Start” button, and click “Control Panel”.

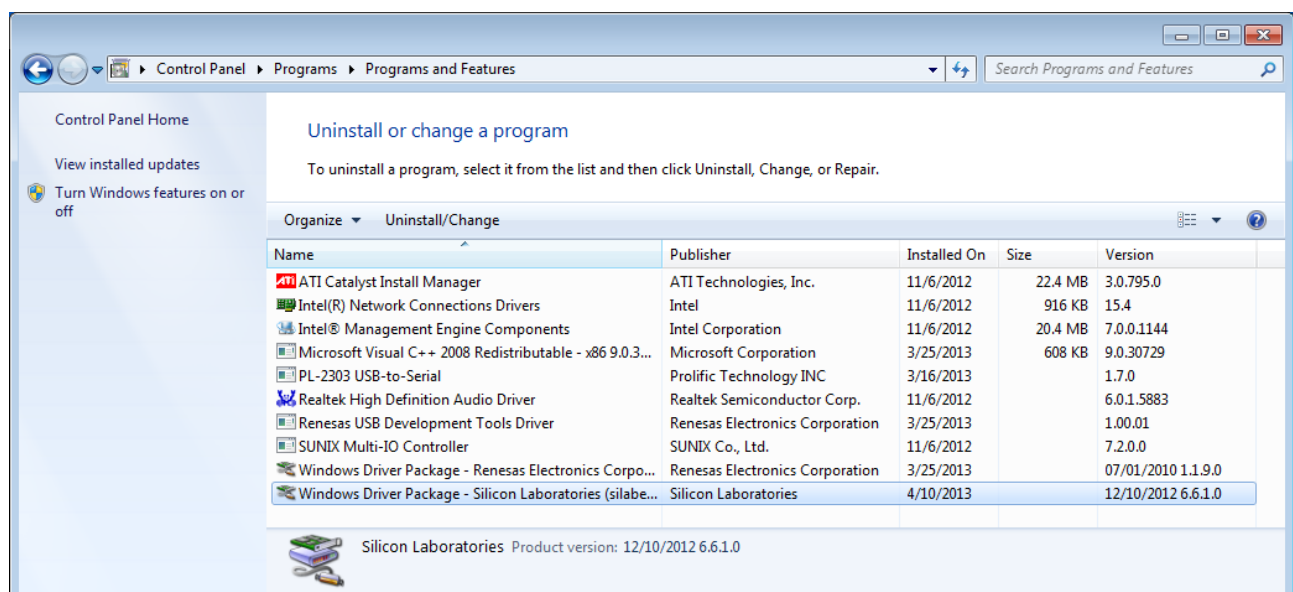


2. Click “Uninstall or change a program”.

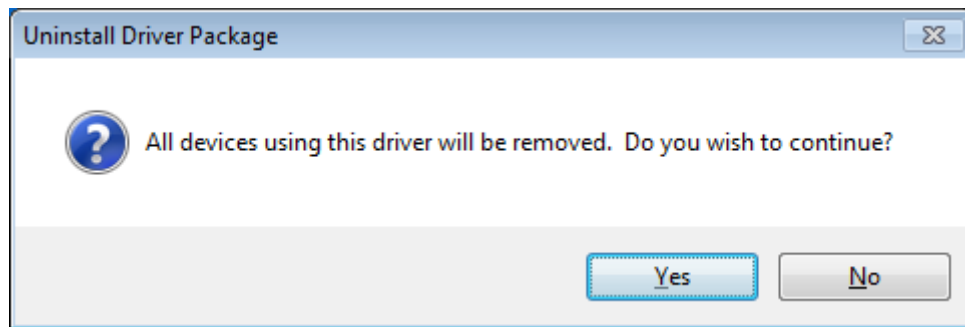
3. Uninstall the following two programs.

“Silicon Laboratories CP210x USB to UART Bridge (Driver Removal)”

“Windows Driver Package – Silicon Laboratories (silabenm) Ports (****)”



4. First, double-click "Silicon Laboratories CP210x USB to UART Bridge (Driver Removal)".
5. Uninstall by following the on-screen instructions.
6. When the uninstall process has been completed, double-click "Windows Driver Package – Silicon Laboratories (silabnm) Ports (****)" to uninstall.
7. The following window will appear. Click the "Yes (Y)" button.



8. Follow the on-screen instructions. If a message appears indicating that the system should be rebooted, follow the on-screen instructions and reboot the computer.

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