

**Getting started with**  
**FCT-081217-R1 (RS232), FCT-081217-D1 (RS485),**  
**FCT-201-F , FCT-102-R**  
**Industrial Serial to Ethernet converters**  
**(based on Windows 11, 64-bit)**

This Step-by-step guide explains how to get started

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FCT-081217-R1 (RS232)  
FCT-081217-D1 (RS485)



FCT-201-F



FCT-102-R

## Powering the converter.

The FCT-081217-R1 (RS232) / FCT-081217-D1 (RS485) converter can be powered by a 9 to 50 VDC 1.0A voltage supply using stripped wires.

When power is applied to the converter the green “PWR” LED light should be solid ON and the green “RX” LED light should be flashing.

A standard 110VAC / 9VDC power adapter with stripped wires as shown below can be used to power the converter.



## Configuring the parameters.

The converters parameters can be configured using a web-browser simply by connecting the converter to your computer using a standard Ethernet cable and then use a web-browser to login to the converter. This will work locally or remotely over a network. Below we describe the procedure.

### Accessing the parameters using a web browser.

Connect the converter to your computer using a standard Ethernet cable and turn on the power supply.

Make sure the network connection you connect the converter to is set to a static IP address in the same subnet as the converter, such as 192.168.0.xxx. This can be done in Windows Settings -> Network & Internet -> Ethernet

Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 0 . 5

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . . .

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . . .

Alternate DNS server: . . . .

☐ Validate settings upon exit

Advanced...

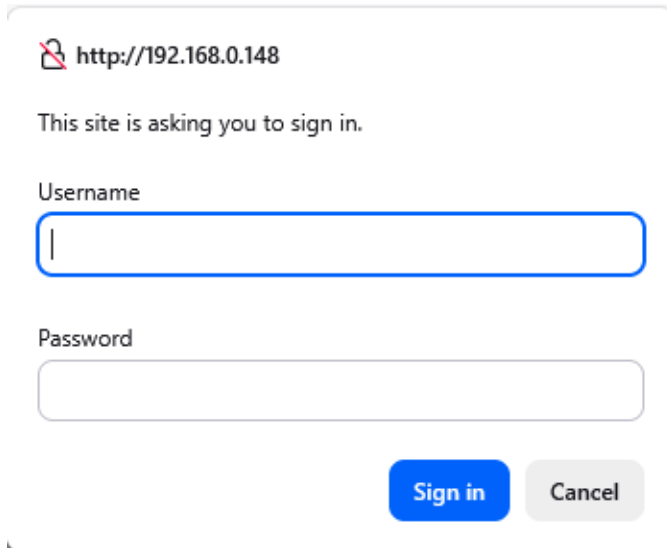
OK Cancel

Now open a web-browser and enter the converter's IP address which is 192.168.0.148

You will now see the login screen.

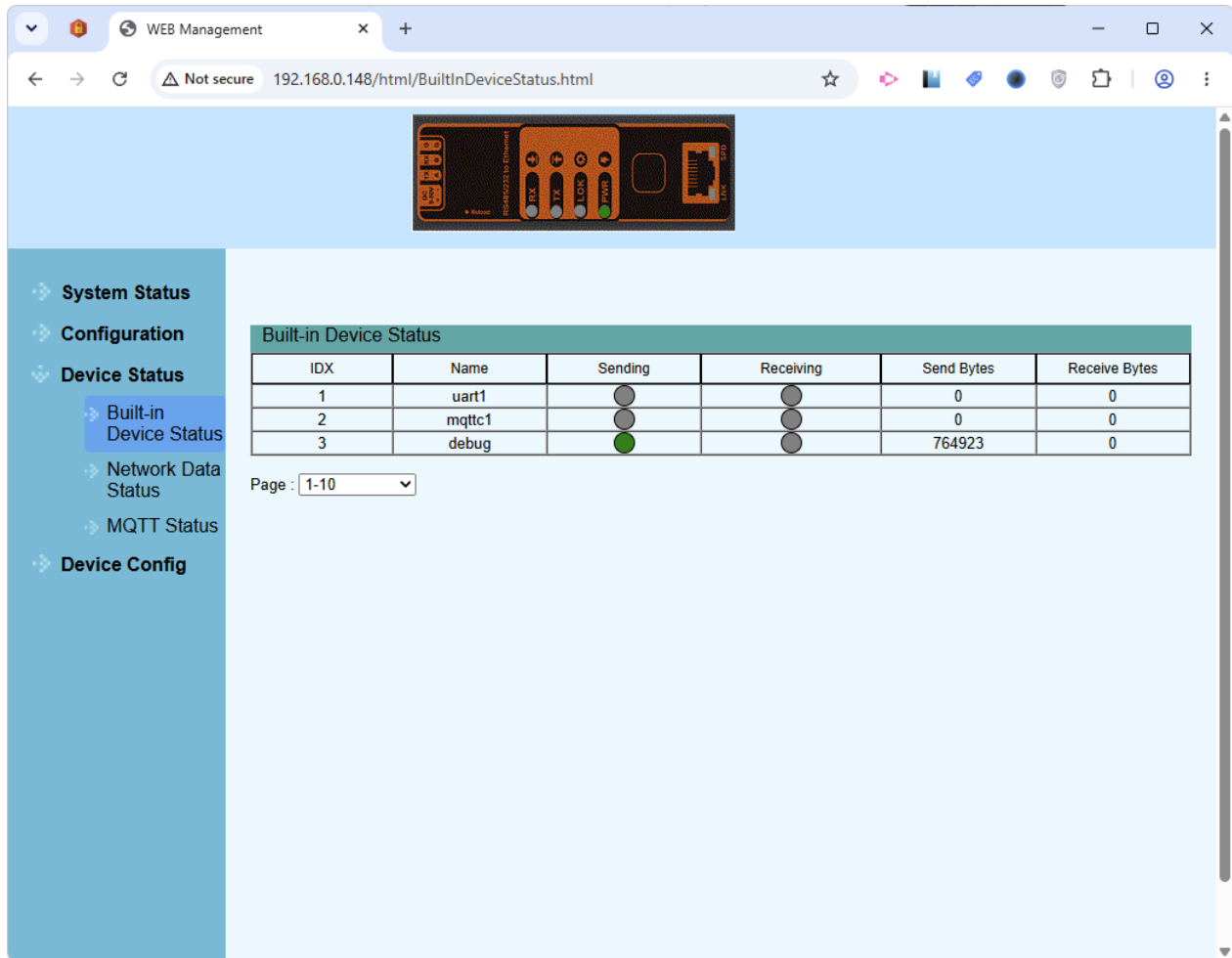
User: **admin**

Password: **admin**



The screenshot shows a web browser window with the address bar displaying <http://192.168.0.148>. Below the address bar, the text "This site is asking you to sign in." is visible. There are two input fields: "Username" and "Password". The "Username" field is currently empty and has a blue border. The "Password" field is also empty. At the bottom right of the form, there are two buttons: "Sign in" (blue) and "Cancel" (grey).

After the login screen the Status page should show up:



The screenshot shows a web browser window with the title "WEB Management". The address bar displays "192.168.0.148/html/BuiltInDeviceStatus.html". The page features a sidebar on the left with a tree view containing the following items:

- System Status
- Configuration
- Device Status
  - Built-in Device Status (highlighted)
  - Network Data Status
  - MQTT Status
- Device Config

The main content area displays the "Built-in Device Status" page. At the top of this section is an image of a hardware device with labels: "RECEIVED by Ethernet", "RX", "TX", "LOCK", "PWR", and "TX/RX". Below the image is a table with the following data:

| IDX | Name   | Sending | Receiving | Send Bytes | Receive Bytes |
|-----|--------|---------|-----------|------------|---------------|
| 1   | uart1  |         |           | 0          | 0             |
| 2   | mqttc1 |         |           | 0          | 0             |
| 3   | debug  |         |           | 764923     | 0             |

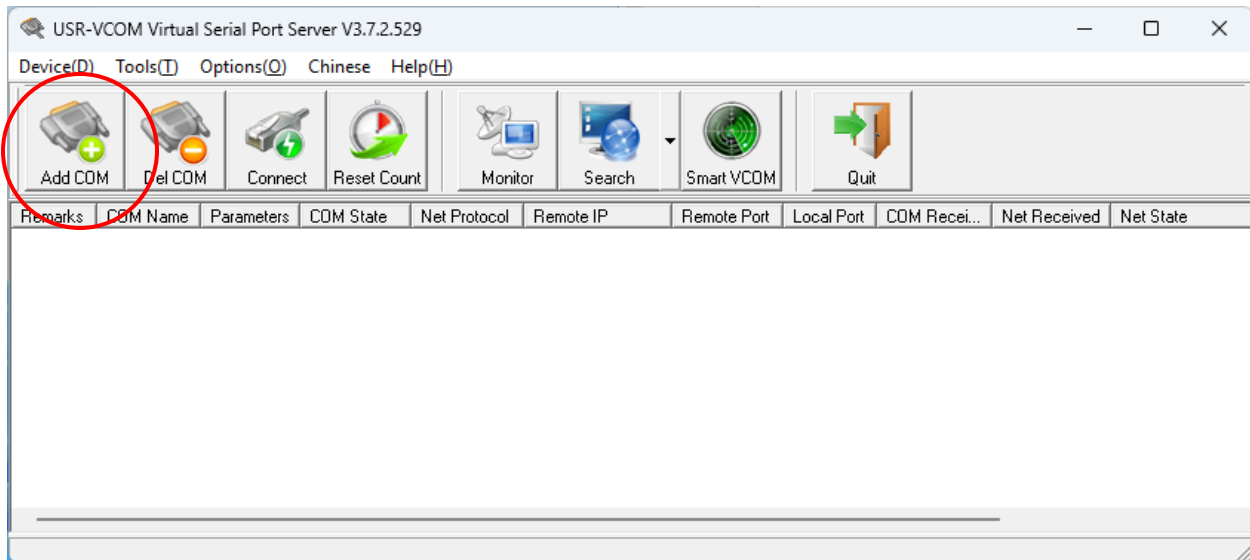
Below the table, there is a "Page:" label followed by a dropdown menu showing "1-10".

## How to create a virtual COM port

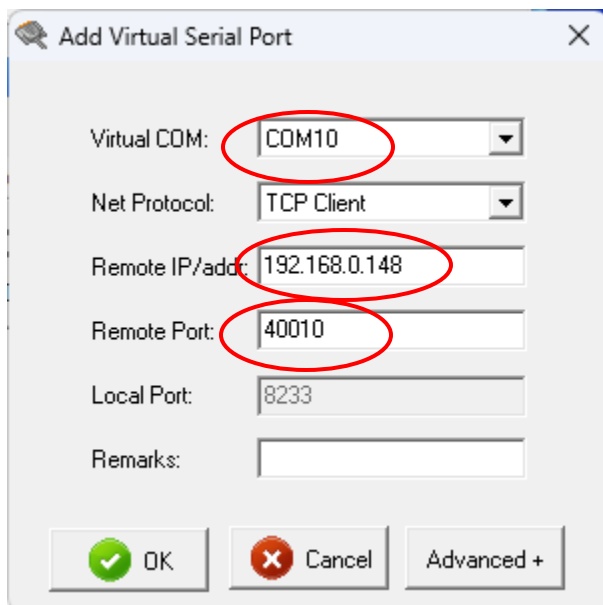
To create a virtual COM port for the converter, which can be used by a serial application or serial device, you need to use a COM port redirector also called virtual COM port software. You can either use the VCOM software included with the converter or a 3<sup>rd</sup> party VCOM software such as “PortShare”, both are free and full versions.

This example use VCOM virtual COM port software.

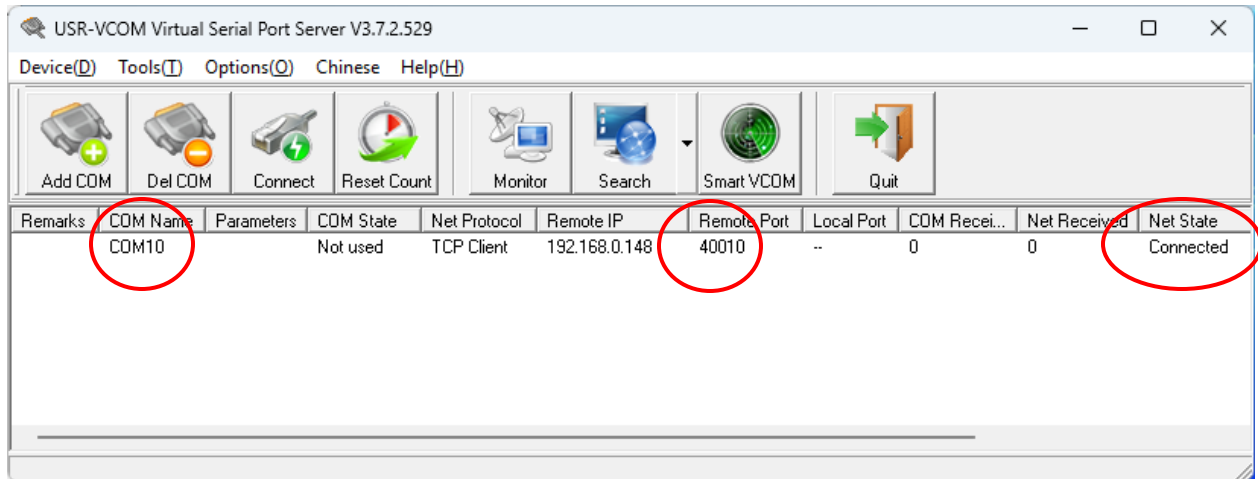
Start the VCOM software (v3.7.2.529) and click the “Add COM” button:



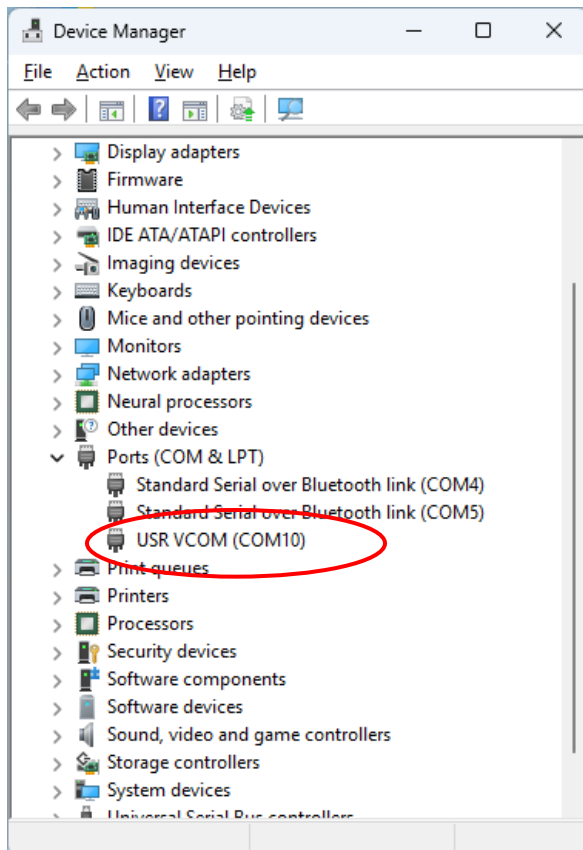
Select the COM port number you want to create and enter the IP address and LAN port number and click the OK button:



The port will now be created:



Check in Windows Device Manager to see if the COM port has been successfully created:



## Making a loop-back test (FCT-081217-R1 (RS232) ONLY)

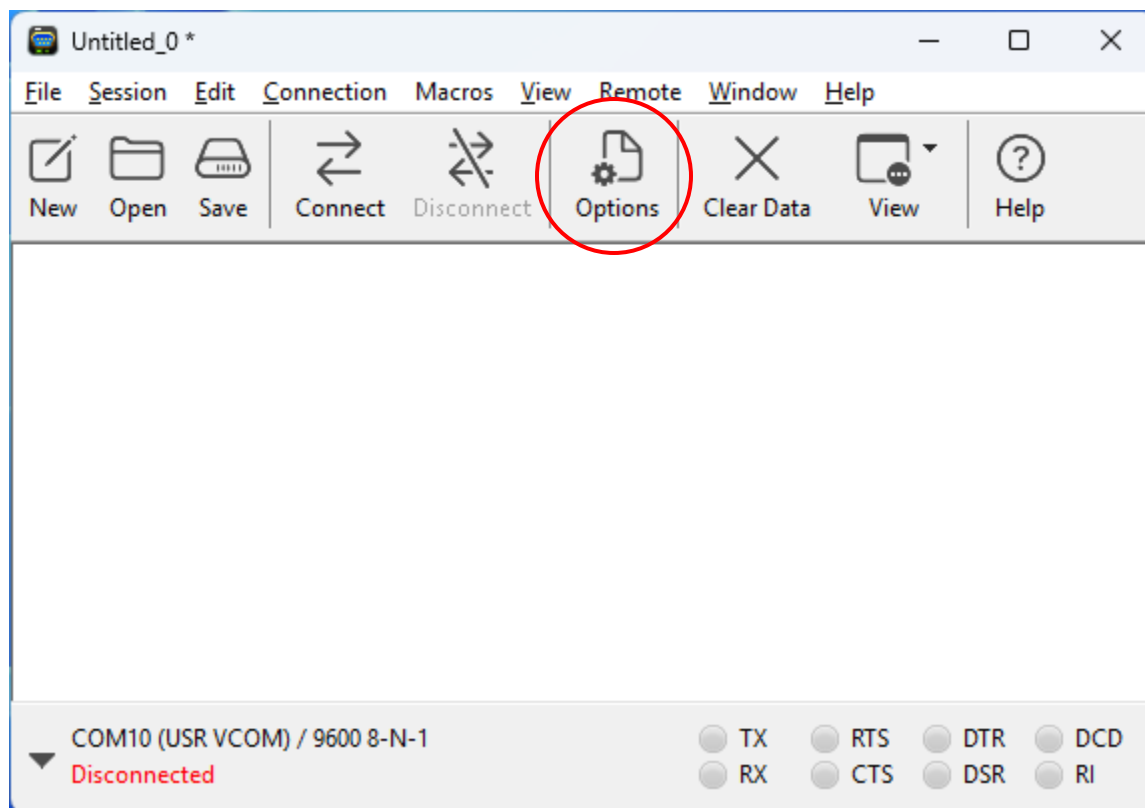
To verify if the converter is working properly and the port has been successfully created you can make a loop-back test.

First carefully use a paper clip or small wire as a jumper between the RX and TX terminals on the converter. NOTICE: THIS CAN ONLY BE DONE WITH THE CONVERTER WHICH HAS A RS232 PORT, NOT IF IT HAS A RS485 PORT.

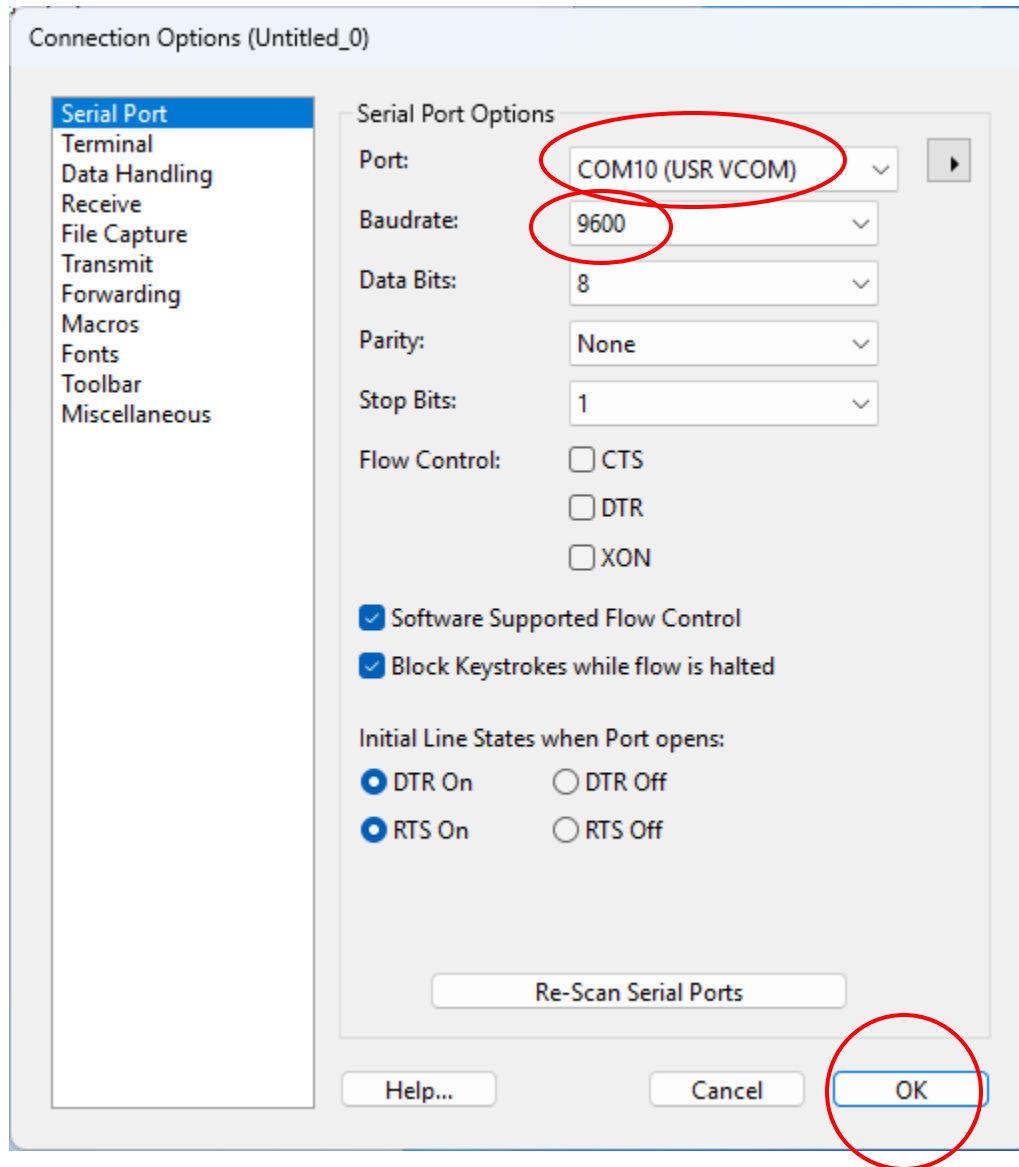
Connect the converter to your computer with an Ethernet cable and create a virtual COM port as described above.

Open the terminal program Coolterm which can be downloaded for free from <http://www.usconverters.com>, alternatively you can use most other terminal programs.

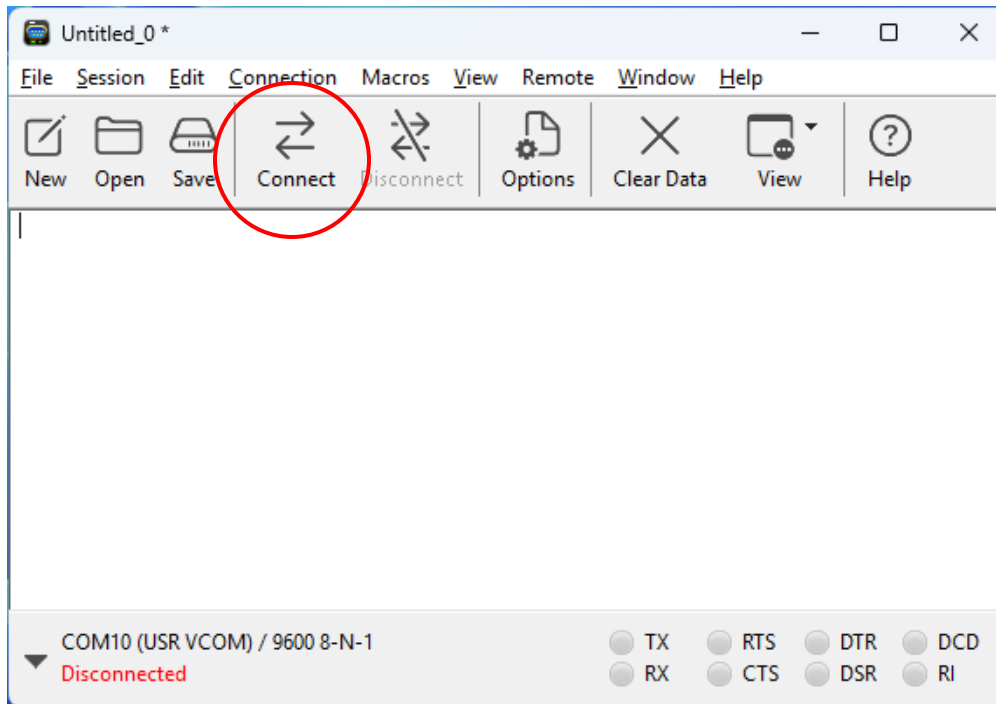
Configure CoolTerm's parameters to match the virtually created COM port (the COM port created by the VCOM software). Click "Options":



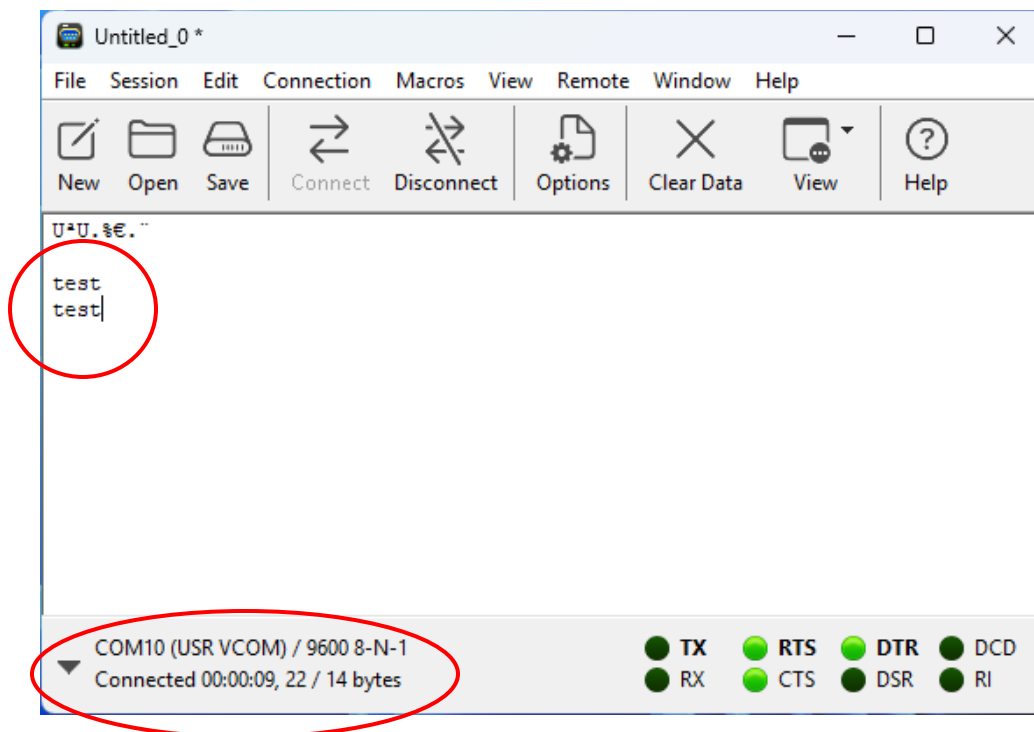
In this example we use COM 10, and the default 9600 baud:



Now click "Connect":



The COM port will now open. When entering/sending characters in the window, the characters should now be sent to the converter and returned back in the same window on the next line:



Making this loopback test will confirm that the COM port has been successfully created and that the USCDR301 can send and receive data, ensuring that the module has been setup correctly.