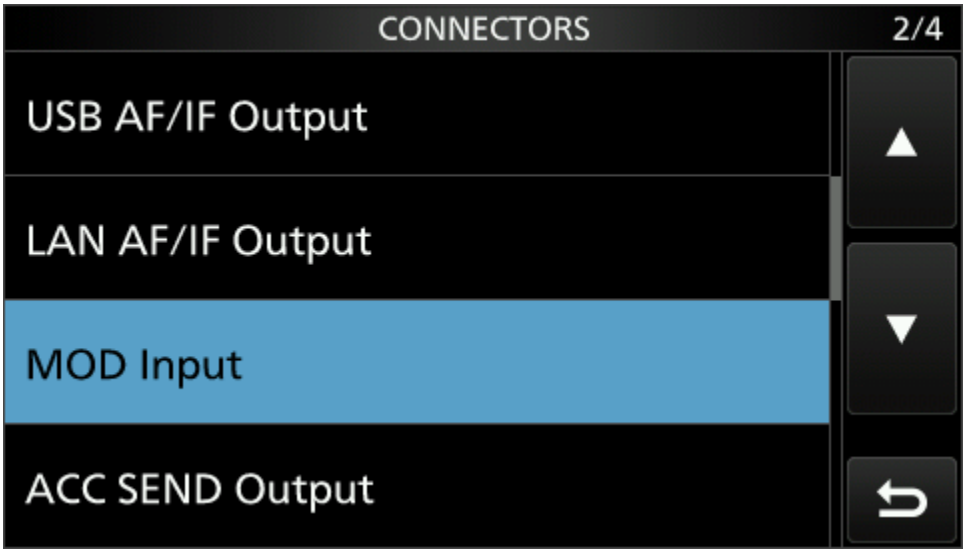
FROM THE W3GMS REPEATER COMMUNITY:

This is one way to setup Icom SDR radios for digital modes. Download Icom drivers FIRST from the Icom website before connecting cables to the radio. The IC-7300 setup also works on the IC-705.

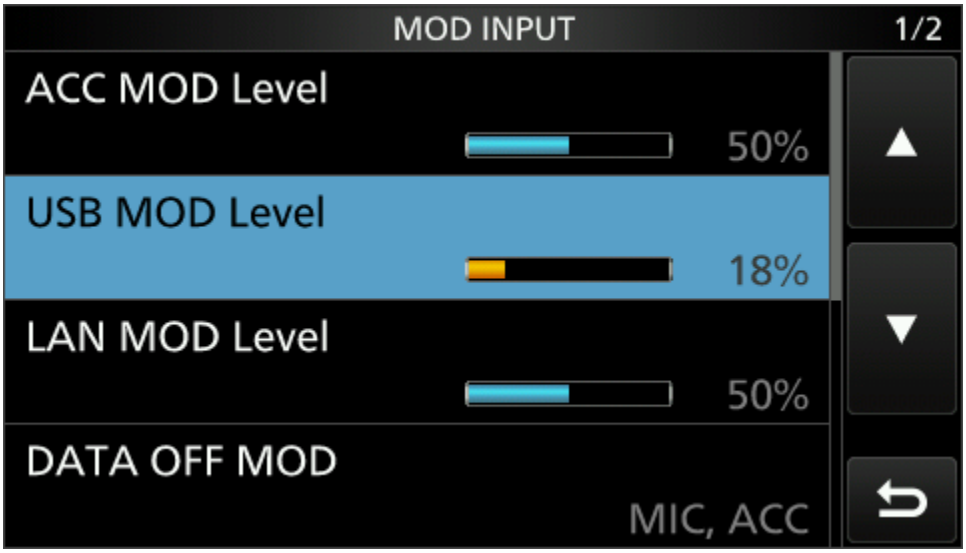
ICOM IC-9700

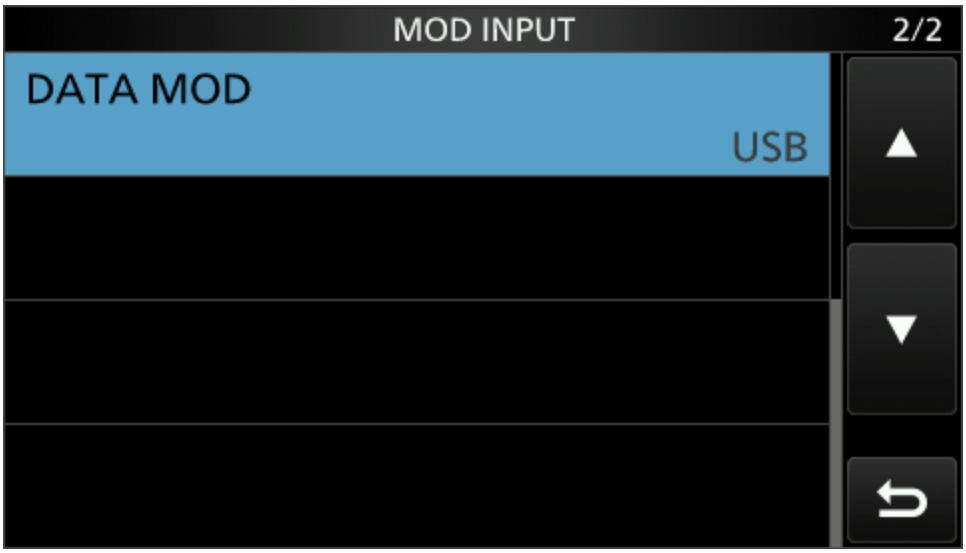
These settings will work with FLdigi (and all associated FL packages), WSJT-X, and SatPC32 all on the same computer providing the same USB port is used.

Select Menu/Set/Connectors/page 2/MOD Input

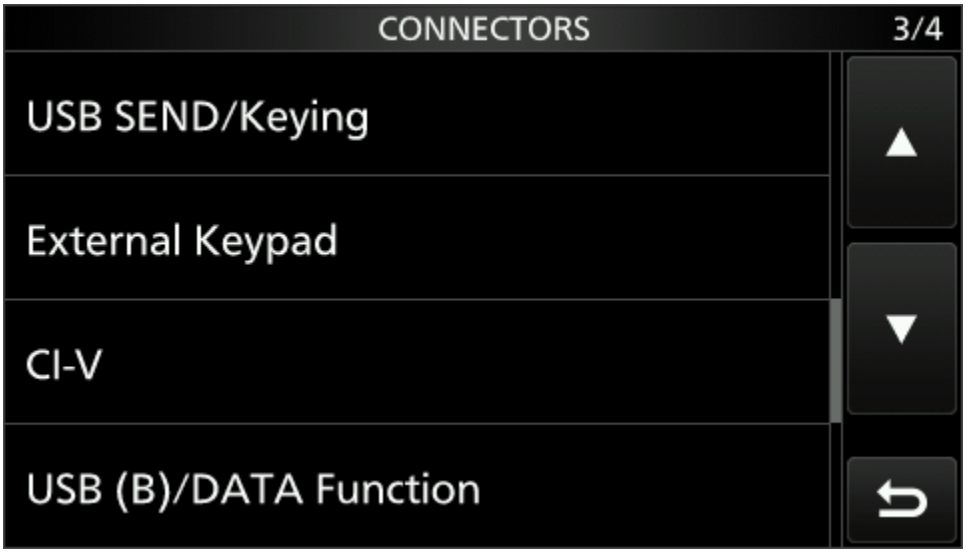


Make your settings as shown:

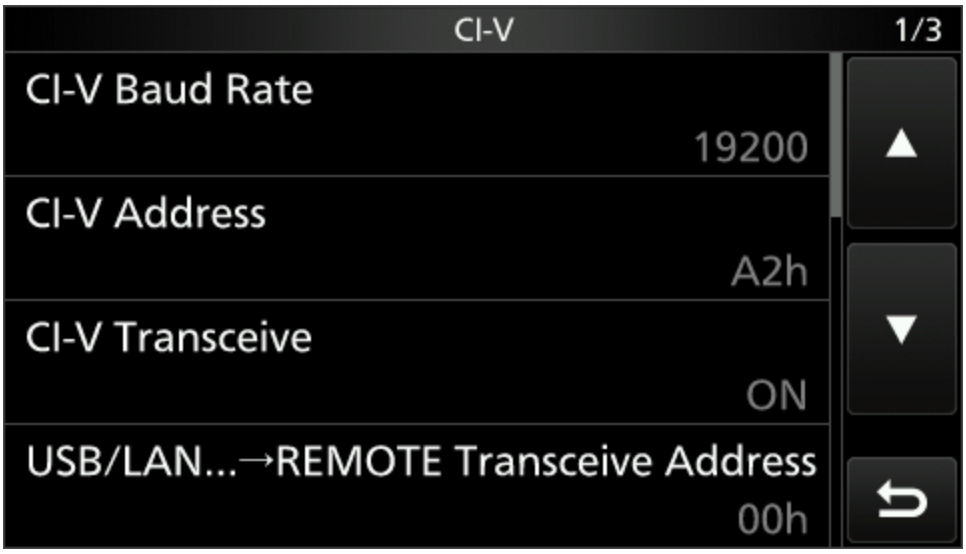


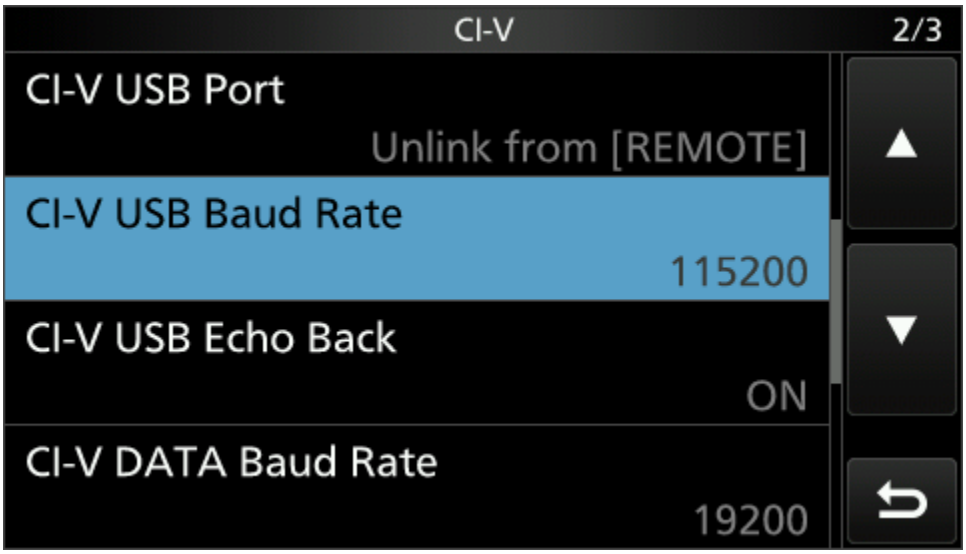


Now go back one menu to connectors and select CI-V on page 3



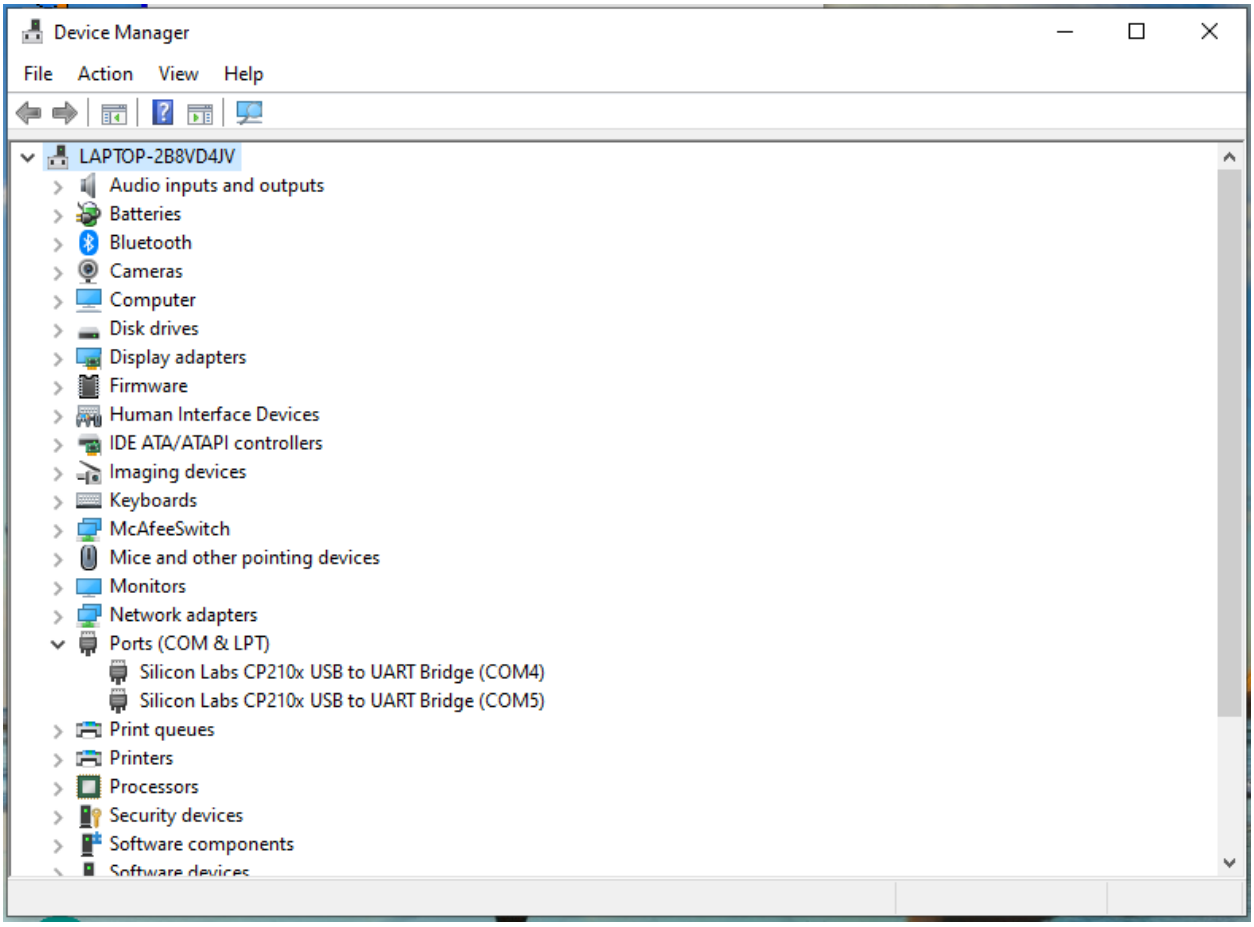
Make your settings as shown:


CI-V
1/3
CI-V Baud Rate
19200
CI-V Address
A2h
CI-V Transceive
ON
USB/LAN...→REMOTE Transceive Address
00h

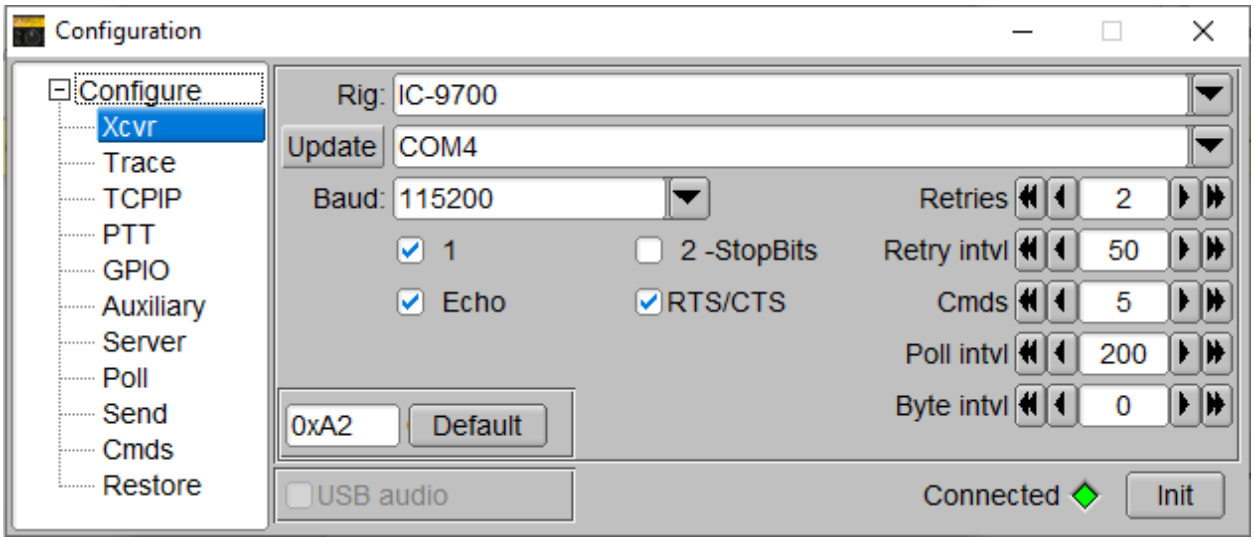

CI-V
2/3
CI-V USB Port
Unlink from [REMOTE]
CI-V USB Baud Rate
115200
CI-V USB Echo Back
ON
CI-V DATA Baud Rate
19200


CI-V
3/3
CI-V DATA Echo Back
ON

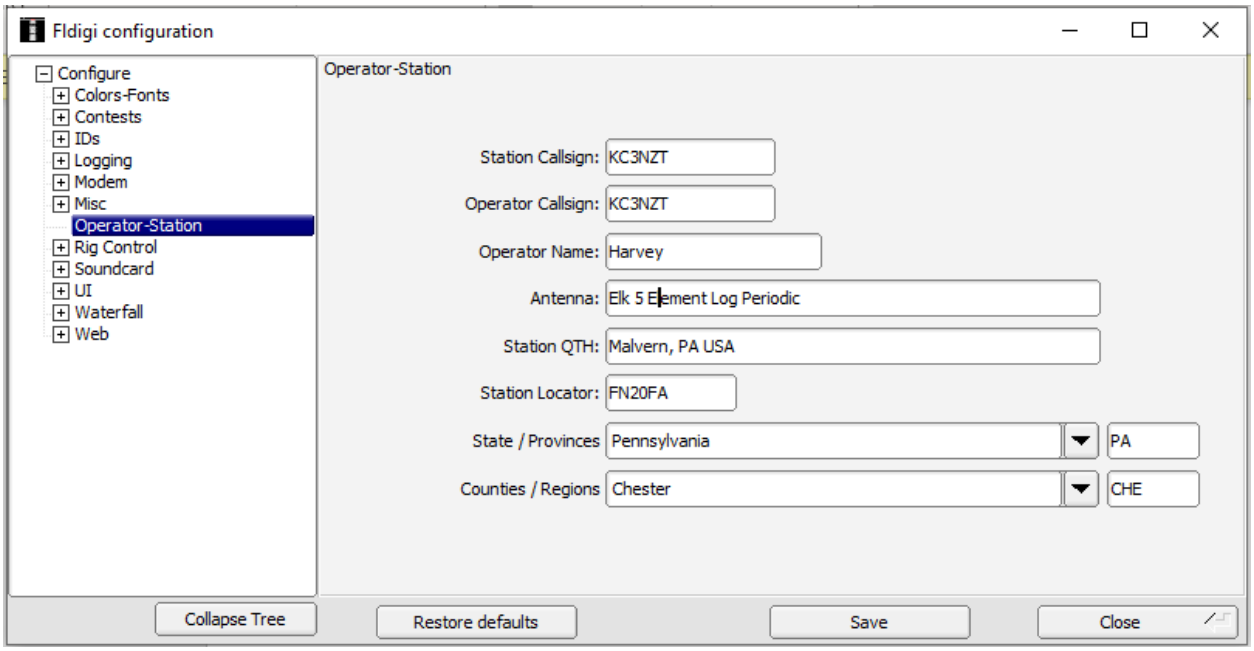
Now on to the software. We will start with FLrig. Right click on start menu icon and select “device manager”. We need to identify your two com ports for the radio. They will be located here:



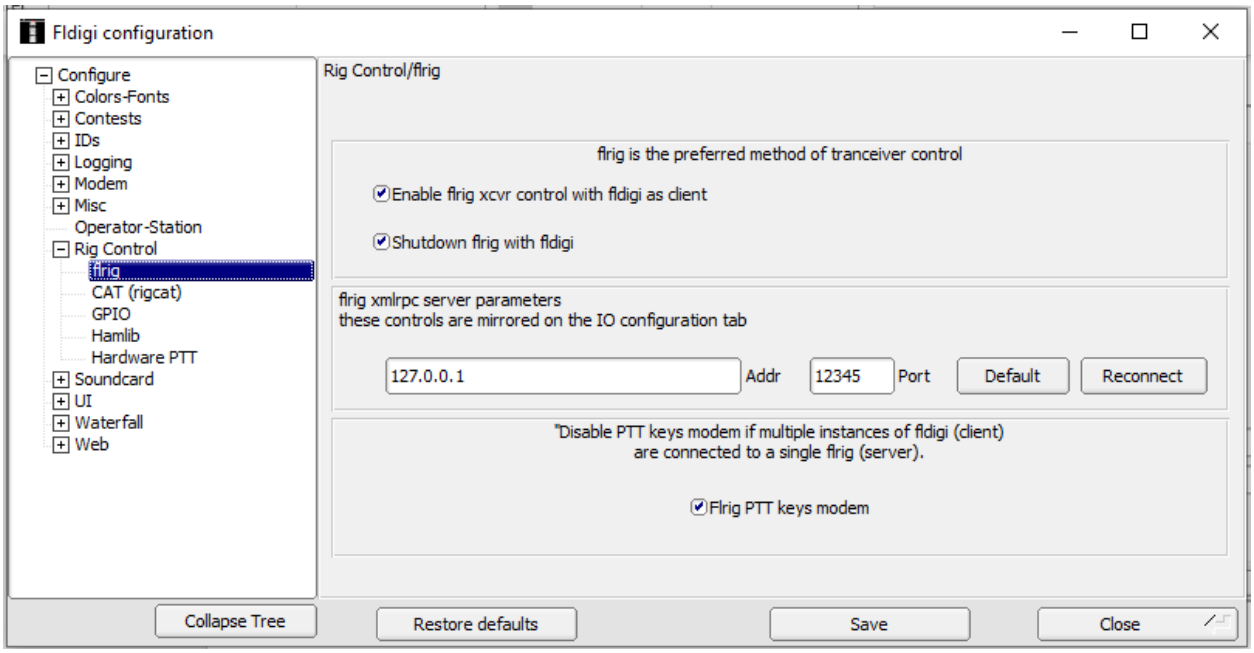
Write both of those com ports down. Also make note of what USB port you are using and make sure you always use the same one. Now download, install and open FLrig. Exit any error messages and select Config/Setup/Transceiver. Make your settings as shown using your com ports you recorded:



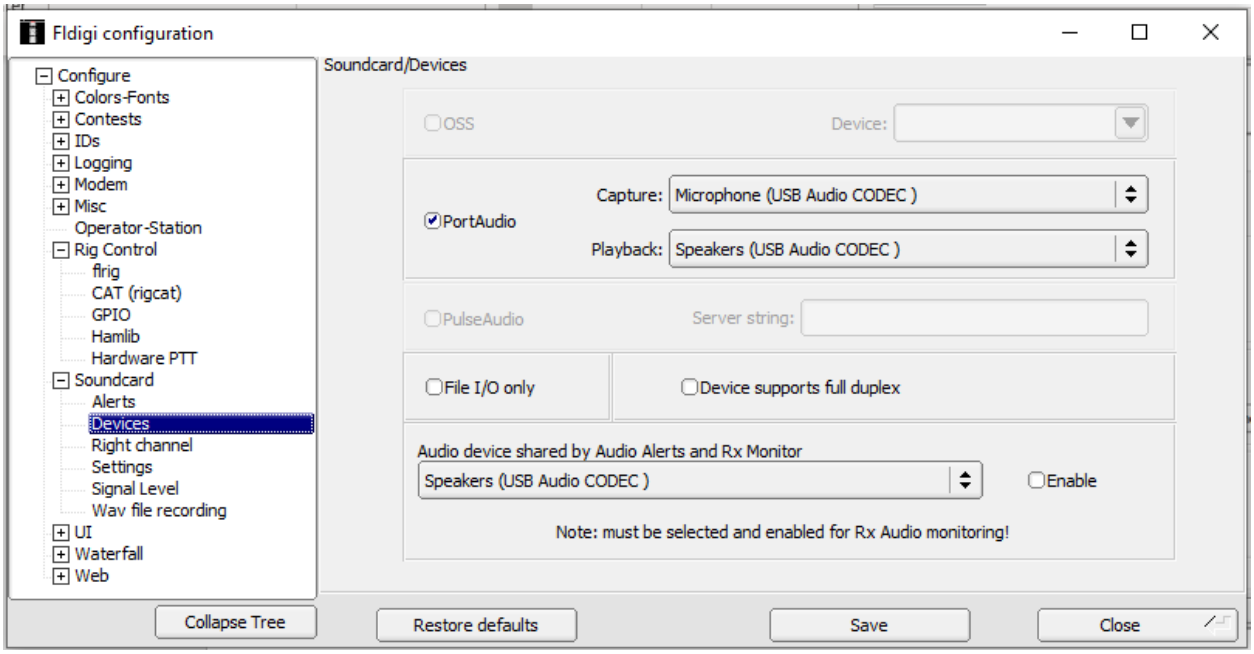
Start with the lowest numerical com port first with FLrig. It will work most of the time. If it does not try the other one. After the settings are as shown, clicking the “Init” button should result in a green diamond. Lastly check the PTT tab and make sure that “PTT CAT” is the only box checked. Now download and install FLdigi. Open the program and exit through any errors. Go to file menu “Configure” and select “Config Dialog”. Fill out the station page first.



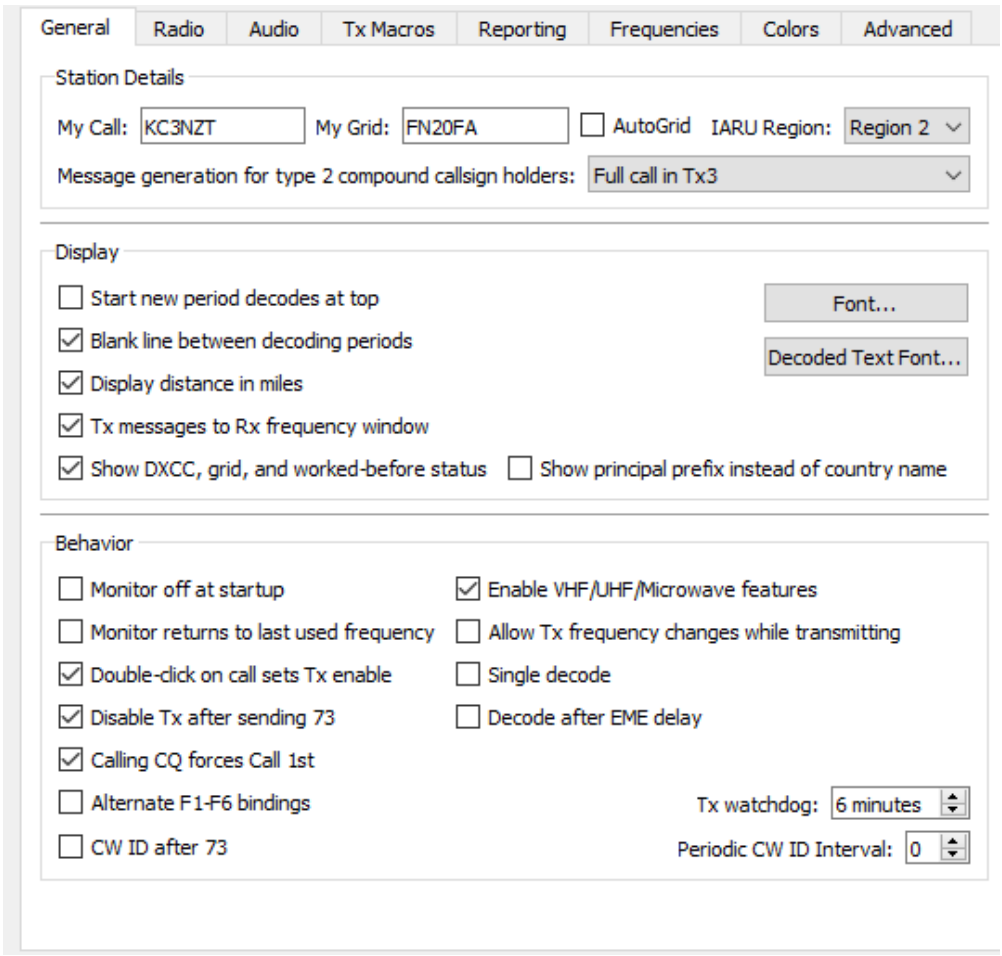
Next select Rig control/flrig and make settings as shown:

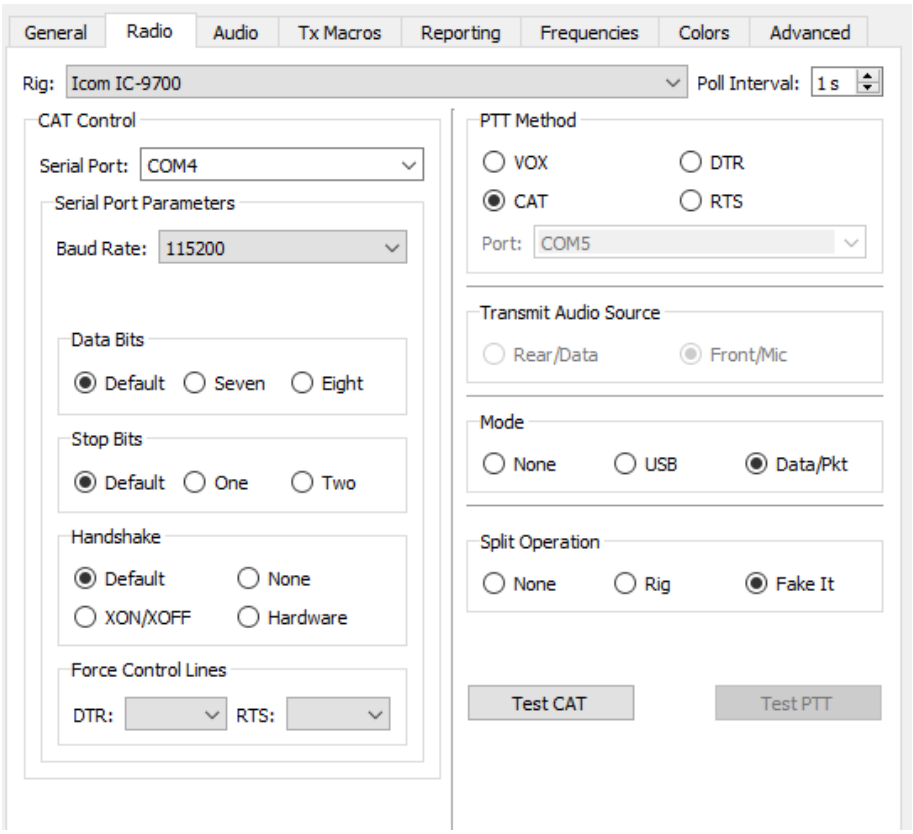


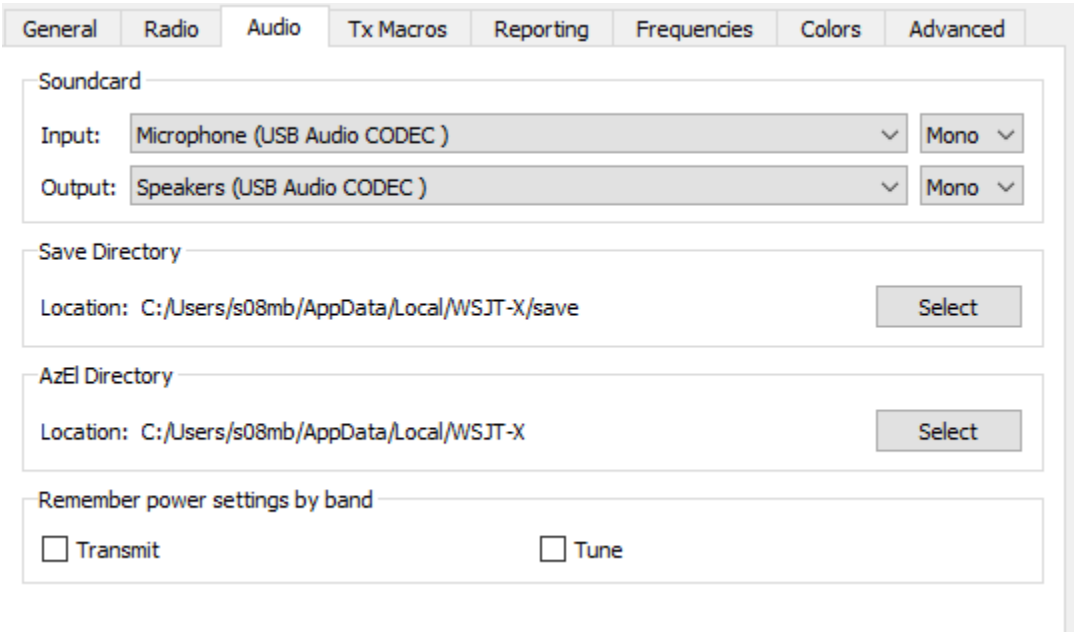
Next move to soundcard/devices and make settings as shown:



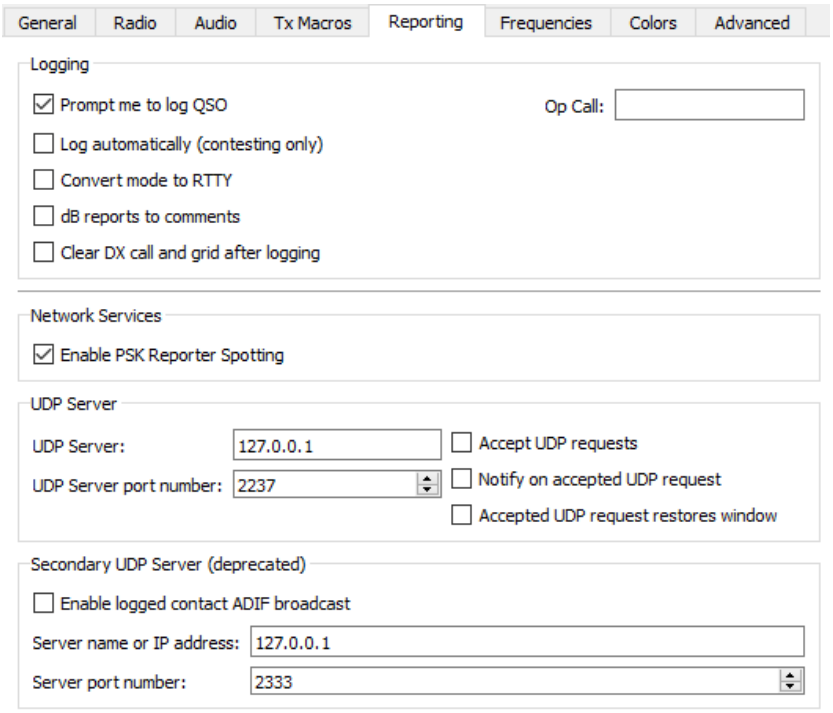
Next, download and install WSJT-X. As before, exit through any errors that pop up. Then go to file/ settings. Make settings as shown:


General
Radio
Audio
Tx Macros
Reporting
Frequencies
Colors
Advanced
Station Details
My Call: KC3NZT
My Grid: FN20FA
AutoGrid
IARU Region: Region 2
Message generation for type 2 compound callsign holders: Full call in Tx3
Display
Start new period decodes at top
Blank line between decoding periods
Display distance in miles
Tx messages to Rx frequency window
Show DXCC, grid, and worked-before status
Show principal prefix instead of country name
Font...
Decoded Text Font...
Behavior
Monitor off at startup
Monitor returns to last used frequency
Double-click on call sets Tx enable
Disable Tx after sending 73
Calling CQ forces Call 1st
Alternate F1-F6 bindings
CW ID after 73
Enable VHF/UHF/Microwave features
Allow Tx frequency changes while transmitting
Single decode
Decode after EME delay
Tx watchdog: 6 minutes
Periodic CW ID Interval: 0

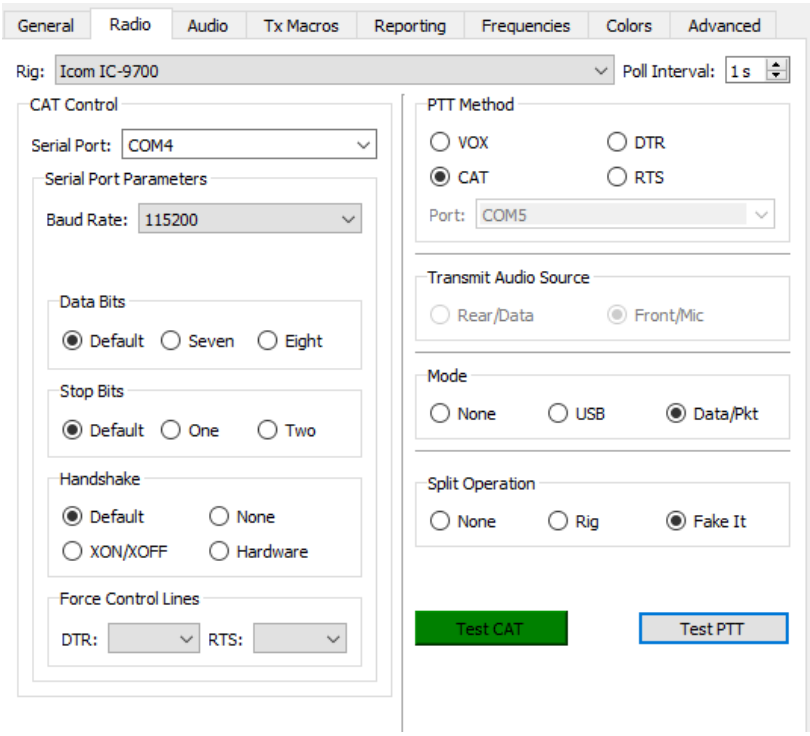




If at any point you get a high-pitched noise coming from your speakers during transmit, Check this menu and ensure the settings are as above.



That is it for WSJT-X. Now you can go back to the Radio tab and select Test CAT. If successful it should look like this:

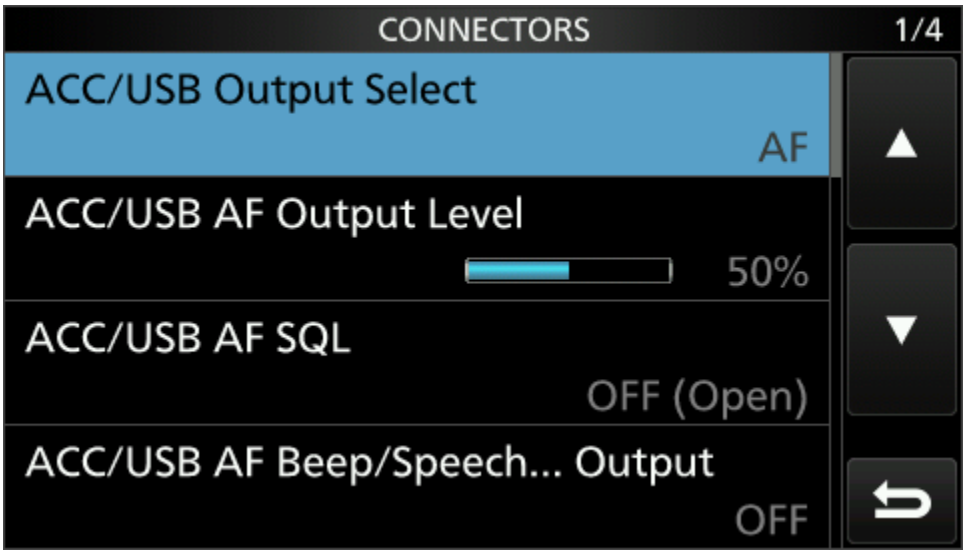


Please go to the bottom of the guide to see how to modify your WSJT-X log file to be able to import to LoTW and QRZ.

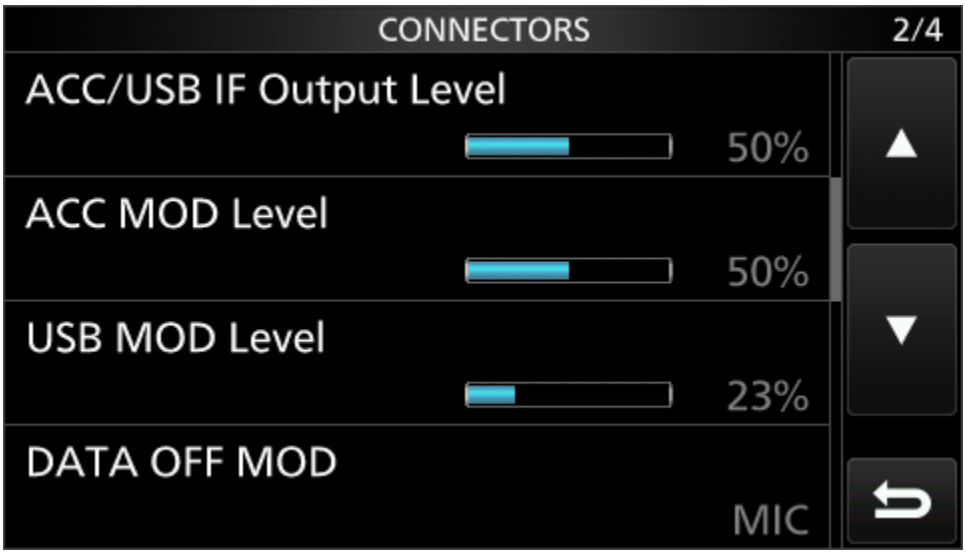
IC-7300

These settings will work with FLdigi (and all associated FL packages), WSJT-X, and Winlink Express all on the same computer providing the same USB port is used.

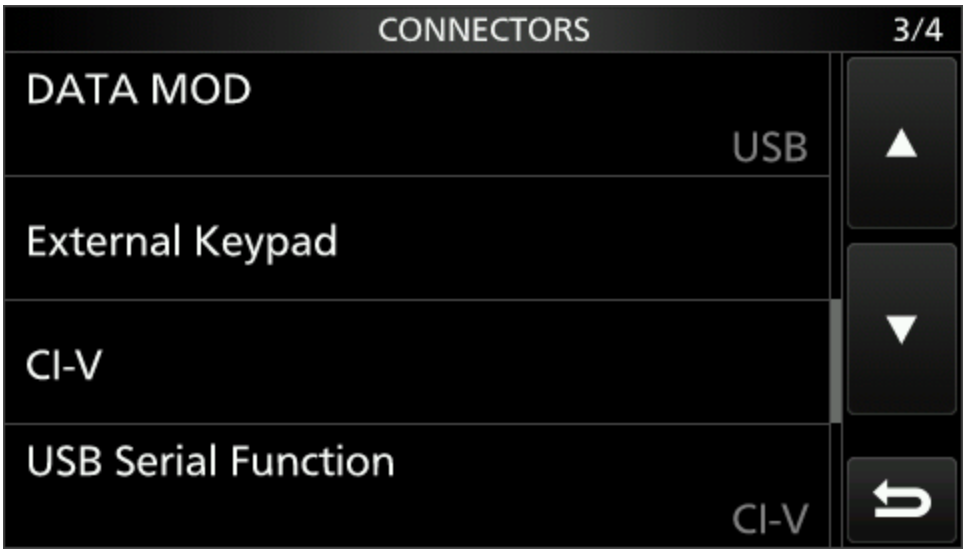
Select Menu/Set/Connectors/page 1 make settings as shown:



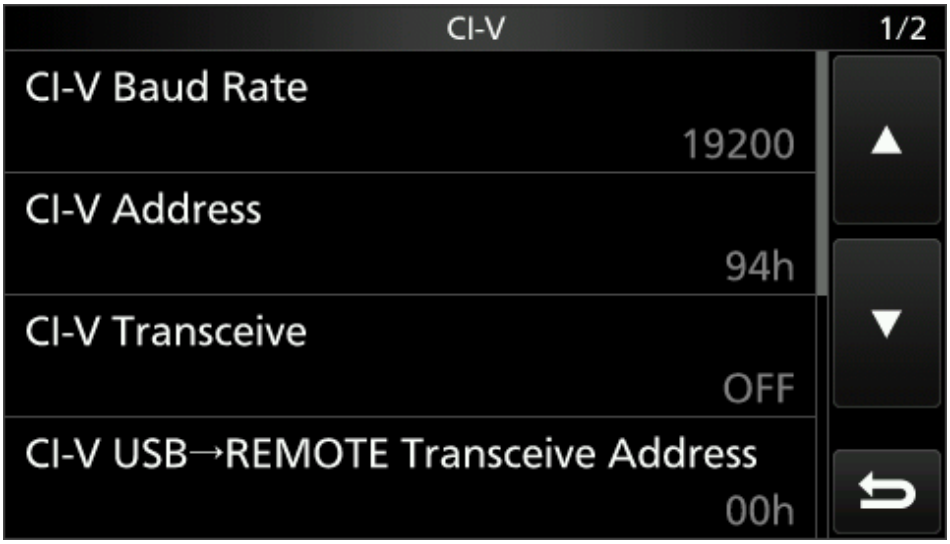
Next select page 2 and make settings as shown:

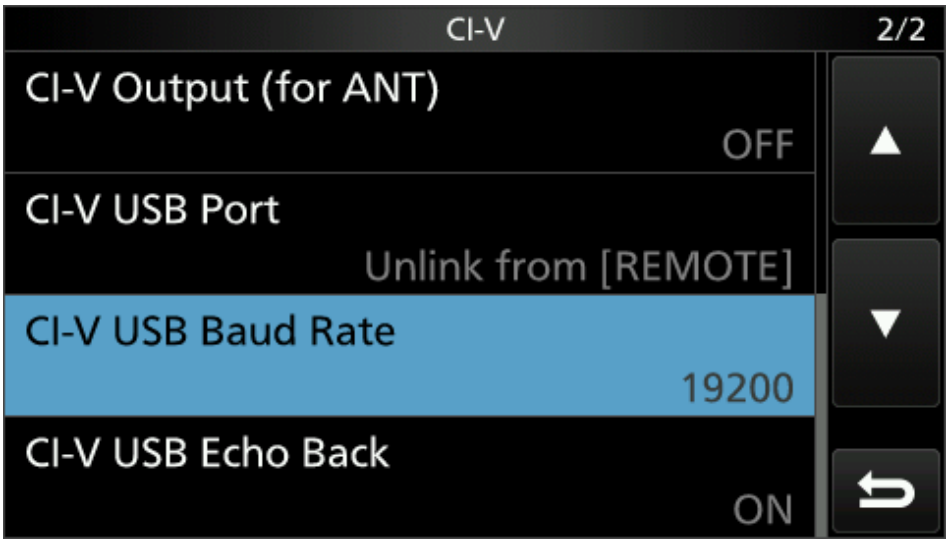


Next select page three and make settings as shown. Then select menu item CI-V

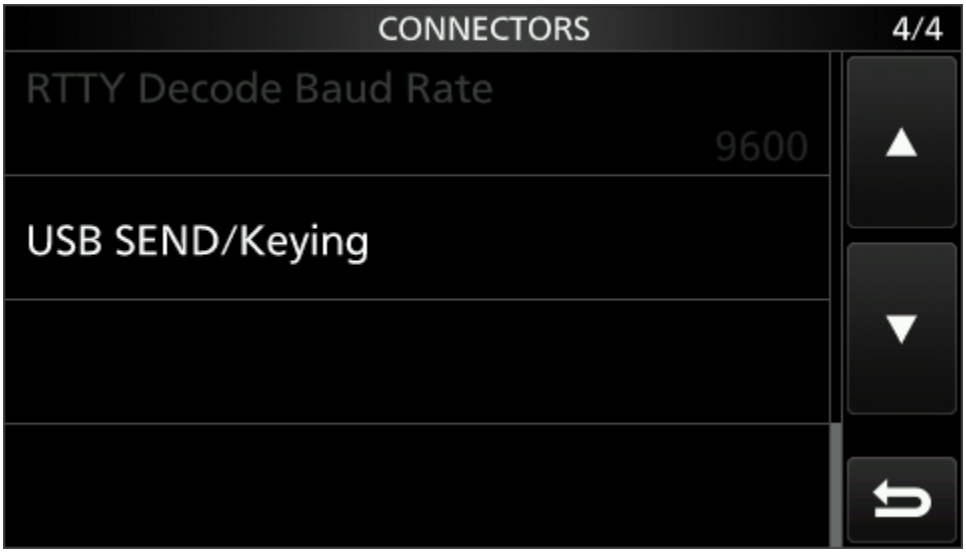


Make CI-V settings as shown:

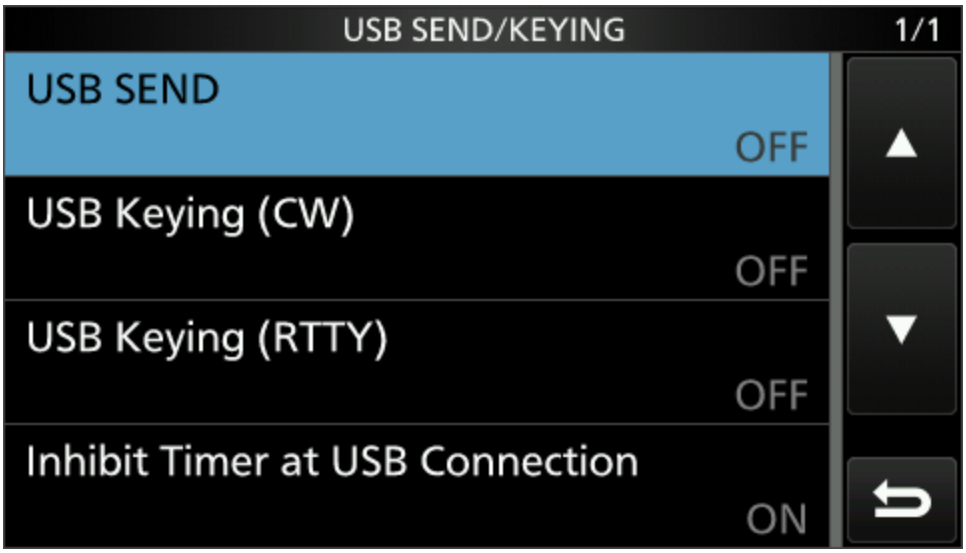




Now go back one screen to Connectors page 4/4



Select USB SEND/Keying and make settings as shown:



That's it for radio settings on the IC-7300. Now we'll take a look at software settings. Download and install FLrig and FLdigi. Open FLrig and clear out any errors. Go to Config/Setup/Transceiver. Change rig to IC-7300, Select the comm port found in device manager as shown above in IC-9700 guide, then select 19200 for baud rate. Lastly, ensure that the rig address is 0x94 which is the default address for the IC-7300. You are now ready to hit "Init" and try out the connection.

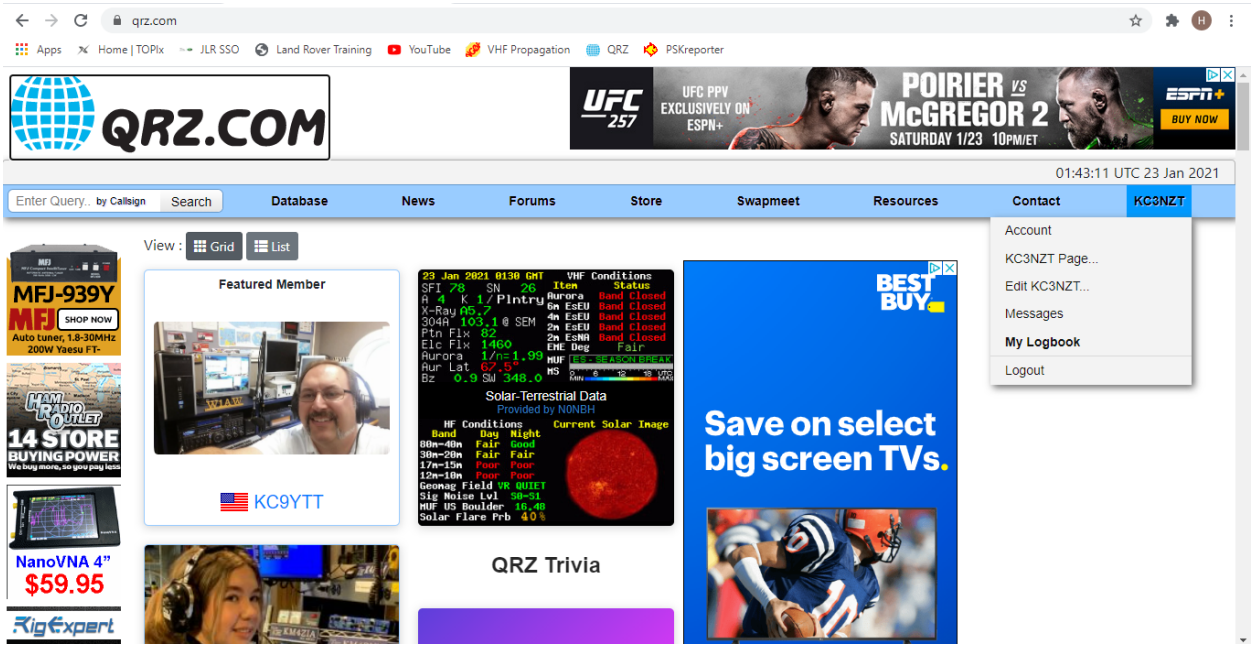
Now open FLdigi and select Configure/Config Dialog. Setup operator-station, an example is in the above IC-9700 section. All rig control and sound card settings are exactly as described in the IC-9700 guide. You should be set to transmit at this time. In the top right of the main window, select RxID and TxID. This will allow the software to automatically switch modes to accommodate the signal you are receiving. It is a good idea to go to the configure menu and select Save config. After that, a restart of the program should show that the VFO is tracking with the radio. Tutorials on how to operate the software are available online and will not be covered here.

Likewise, WSJT-X settings are similar. The only settings that requires changing from the IC-9700 guide is the rig and baud rate. Select file/settings/radio to change those settings to Icom IC-7300 and 19200. Now select Test CAT and Test PTT. Everything should be operating.

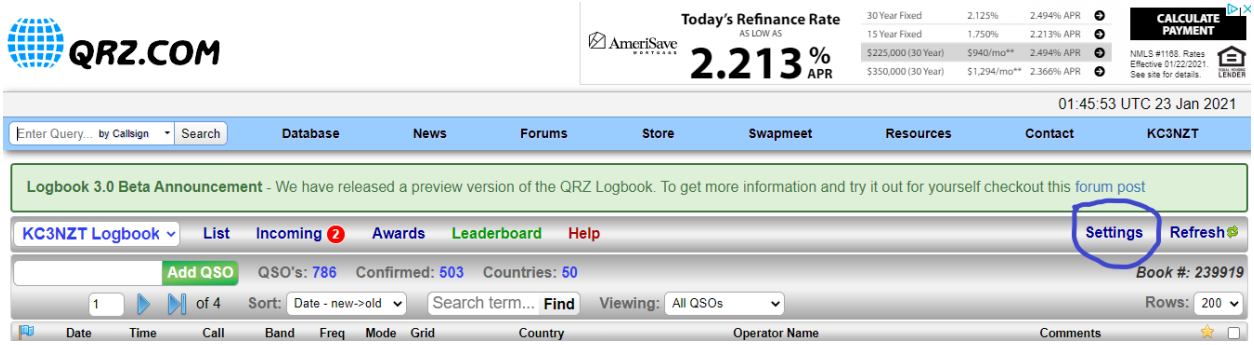
Modifying WSJT-X Logbook Header

In order to import settings to QRZ.com and LoTW, the log document for WSJT-X needs to be modified. Before this can be done, a contact must me made. So go play radio and make your first contact. Once concluded, a pop-up comes up to log the contact. Press the button that says "Log". Now from the main WSJT-X window go to File/Open log directory. It will open a window with many files in it. You are looking for one called "wsjtx_log.adi". Right click the file and choose "open with". Choose notepad. The very top of the document contains the header. Normally you will see at the end "<eh>". That is the section to modify. It should read as such:

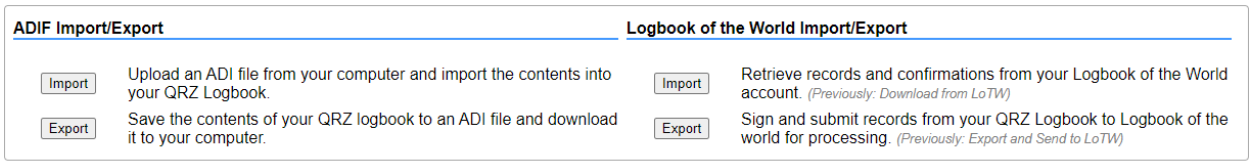
Once modified, save the document. Close the window. Now is a good time to create a shortcut to an easily located spot on your computer. Make sure it is a shortcut and not a copy. Now we will upload the file to QRZ.com and export to LoTW. This requires that you setup a QRZ logbook and already have a LoTW account. Details on how to do this are covered elsewhere on the interwebs. Log into your QRZ account and select your log book as shown below:



Now select settings on the right-hand side as show:



No scroll down to the section that looks like this and select import on the left hand side.



Select you file from the easily remembered location that you placed the shortcut. It will import and automatically sort based on QSO date. If you wish to export to LoTW you can do so by selecting the export button on the right-hand side of the same box. Now QRZ and LoTW have you log file from the software.

Now get on the air and make some more contacts!