

Windows - WinLink, TX-500 , VARA HF, Digirig setup notes

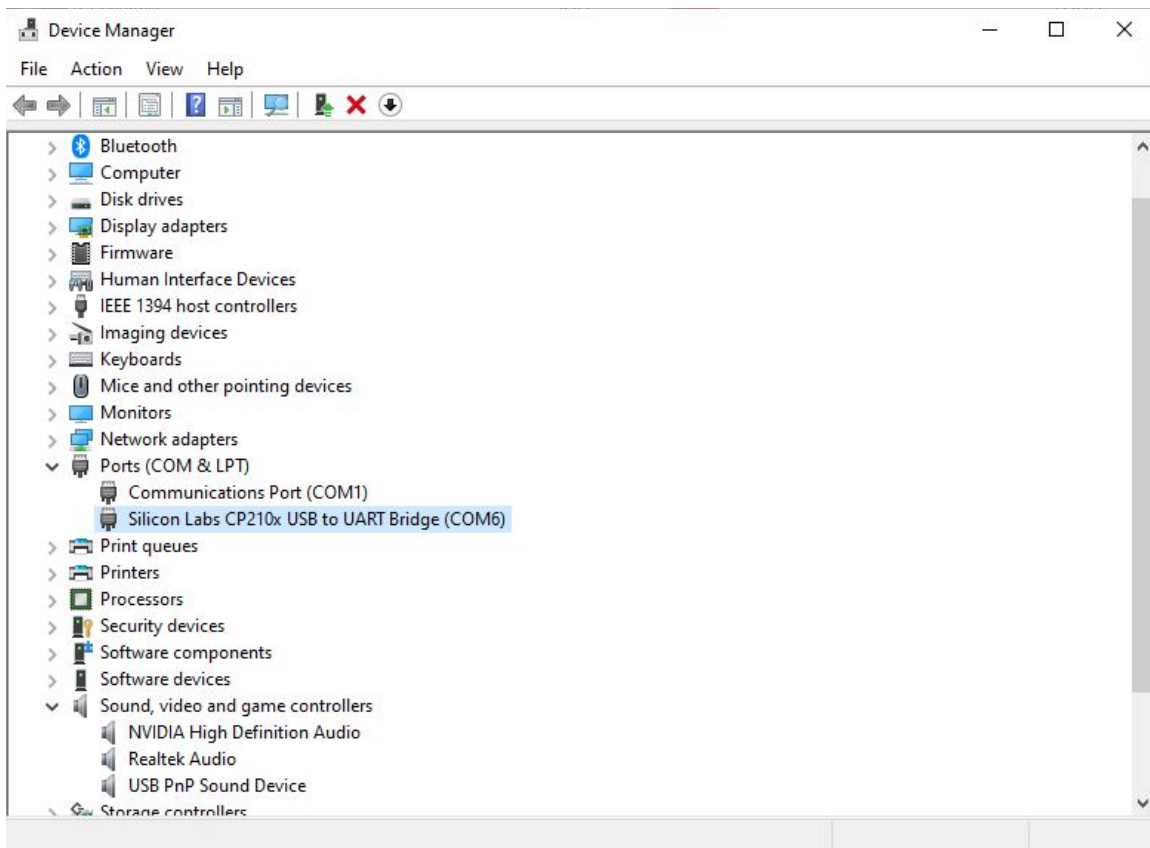
Comments to: KC9WIB@gmail.com

Silicon Labs Drivers - <https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers>

Not sure anymore if I loaded these drivers or they automatically are installed on Windows. if installing , do without DigiRig module connected via USB to PC

Attach Digirig Module to TX-500 and Windows PC, make sure the cable is a data capable USB-C cable not a charging only cable.

Device Manager - if the driver is installed properly and the Digirig is connected via USB, you should see The Silicon Labs entry under Ports and the USB PnP Sound Device under Sound... The Driver is visible under the properties tab of the Silicon Labs entry in Ports



Device Manager

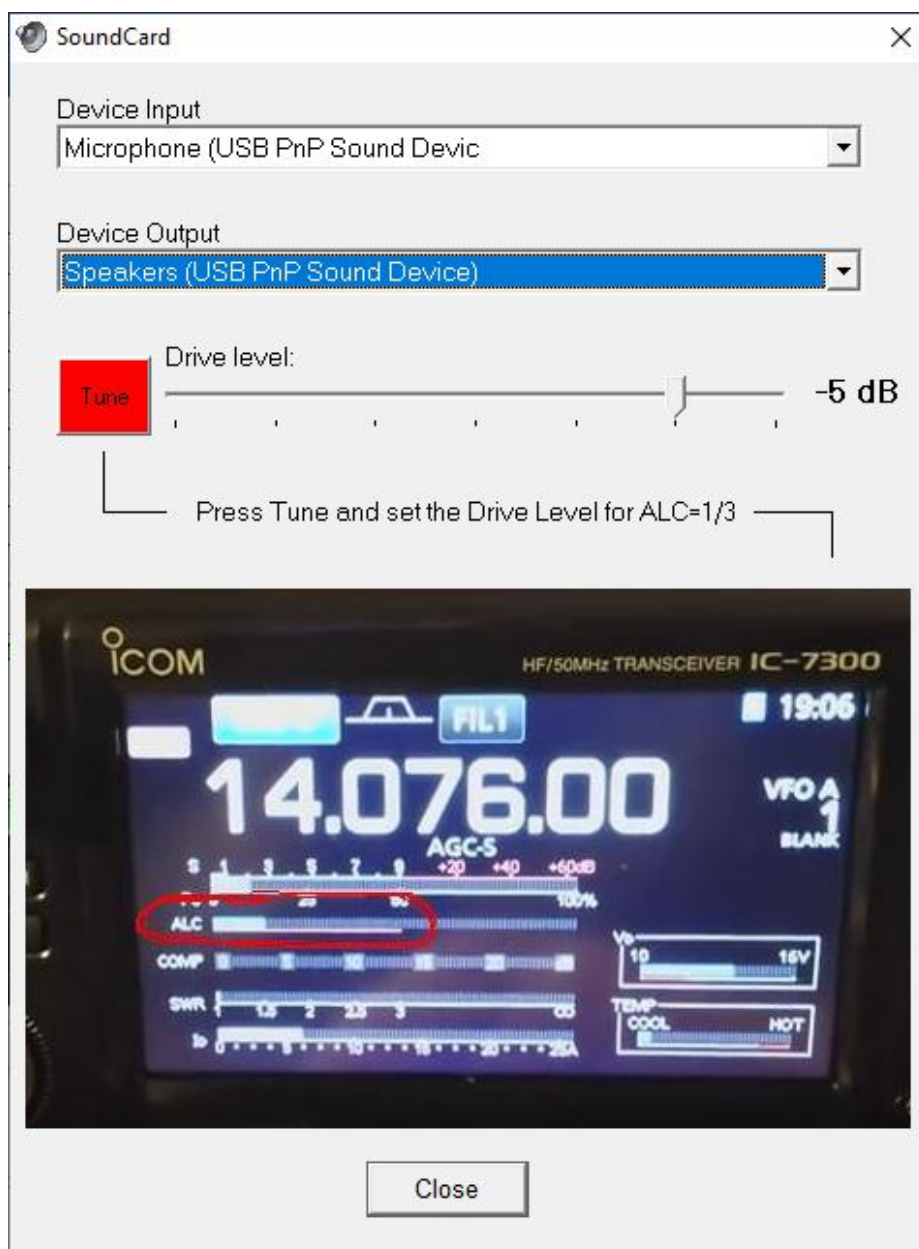
Download and Install Winlink Express and VARA HF

You need to set up an account with Winlink, and enter the details in “Settings—>Winlink Express Setup”. Set up an list a whitelist of permitted recipients and send to SYSTEM - you can sent this via a telnet session in Winlink Express - look up the syntax online

To test email - compose an email using the “Message—> New Message” in Winlink Express and then “Post to Outbox”. To check receive, send a short email from a whitelisted account to your winlink account (not using winlink)

For testing permissions while connected to the Internet, send and receive via a telnet session, not using VARA HF.

VARA HF - Audio Setup



VARA HF Session: Settings —> Radio Setup

Open a VARA HF Session via Winlink Express, select “Settings—>Radio Setup”

- Radio: Kenwood TS-590S
- Mode: USB Digital - manually set the TX-500 to DIG on frequency changes, the TX-500 does not currently implement a DIG model change via CAT
- Radio Control Port: The Silicon Labs Com Port from Device Manager
- Baud: 9600
- PTT Port: Same Radio Control Port
- Enable Both RTS and DTR

When you close the “Setting—>Radio Setup” dialog , you should be able to click on the Channel Selection, and select good reachable stations. Add the best ones to your favorites list

Note - these settings work for me, I don't really understand all the why's. After setting these you should be able to:

- change the selected target station in the session and see the frequency change on the radio, as well as the mode switch back to USB (change it to DIG manually)
- start a session and transmit/receive emails

Vara HF Winlink Settings

Radio Selection

Select Radio Model: Kenwood TS-590S Antenna Selection: Default

Icom Address: 94 USB USB Digital FM Use Internal Tuner

Codan login and optionl password: _____

Radio Control Port

Serial Port to Use: COM6 Baud: 9600 Enable RTS Enable DTR TTL

PTT Port (Optional)

Serial Port to Use: COM6 Baud: 9600 Enable RTS Enable DTR

Update Close

Refine the Radio Settings

Set Mode to DIG, as it will not be set automatically, recheck this frequently. The TX-500 CAT commands do not support a digital mode as per Lab599.

I set MON to enabled so I can hear the Digital output

If MON is enabled in USB mode (as opposed to DIG) you may/can hear a feedback loop

There are 2 main controls that effect **output power** on the radio through Windows.

- Menu 09 Gain - submenu DIG: set to 15-30
- Windows Volume Control - Master Volume on the Sound Control

You will have to play with these to get the power you want and not overdrive. Set these so the output power on the rig is what you want, too high and you may see spurious spikes on the radio's pan adapter, too low and you won't get as much range

Lab599 suggests looking at Menu 23 - TX METR - MIC, which will display the MIC output gain level - if you see spurious spikes in the panadapter display - you can lower one of the controls mentioned above to bring this in line. the manual suggests 3-7 while speaking. I have mine at the top of the scale and it seems to work okay,

Input strength

2 controls effect this

Rig: RF Menu 07 submenu DIG , mine is set to -19 to -24

The Input sound volume control Sound Settings —> Device Properties for the USB PnP Sound Device - mine is set to 7 (of 100)

Full Screen View of active session:

