VARA-FM Station Similarity to SCC Packet:

VARA-FM over 25 Kbaud UHF

AX.25 Packet over 1200 baud VHF

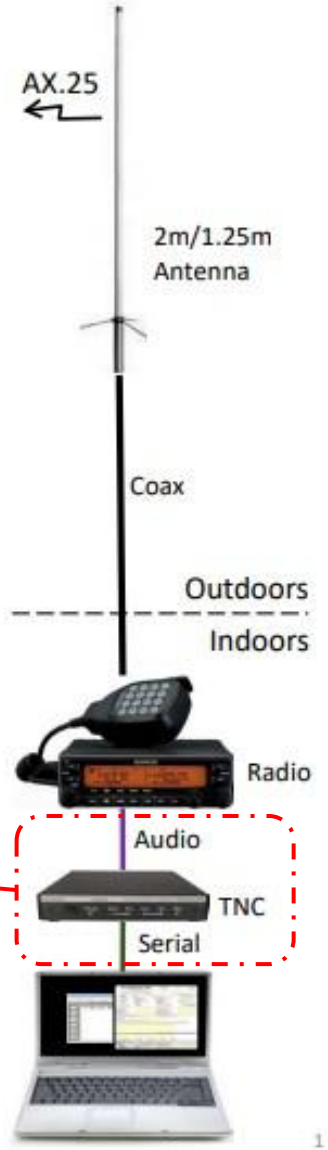
Basic Station Configuration

- Antenna
  - Field: Roll-up J-pole, 2m for individuals 1.25m for EOCs; push-up 32' mast, tripod, sand bags and/or stakes, safety cones
  - Fixed: Tri-band (2m/1.25m/70cm) ground-plane
- Coax
  - Field: 25' LMR-240 up mast; 25-50' LMR-400 to station
  - Fixed: LMR-400 or better; surge protection; properly grounded
- Radio
  - 25W minimum; 50W preferred
  - Built-in data connector preferred
    - Allows listening on speaker
    - Eliminate variability in audio level between radio and TNC
- TNC
  - External hardware TNC preferred
- PC
  - Windows preferred
  - Outpost and PacFORMS, plus other recommended applications

Tune to 433.33 MHz

USB Sound Card

VARA-FM, VARA Chat



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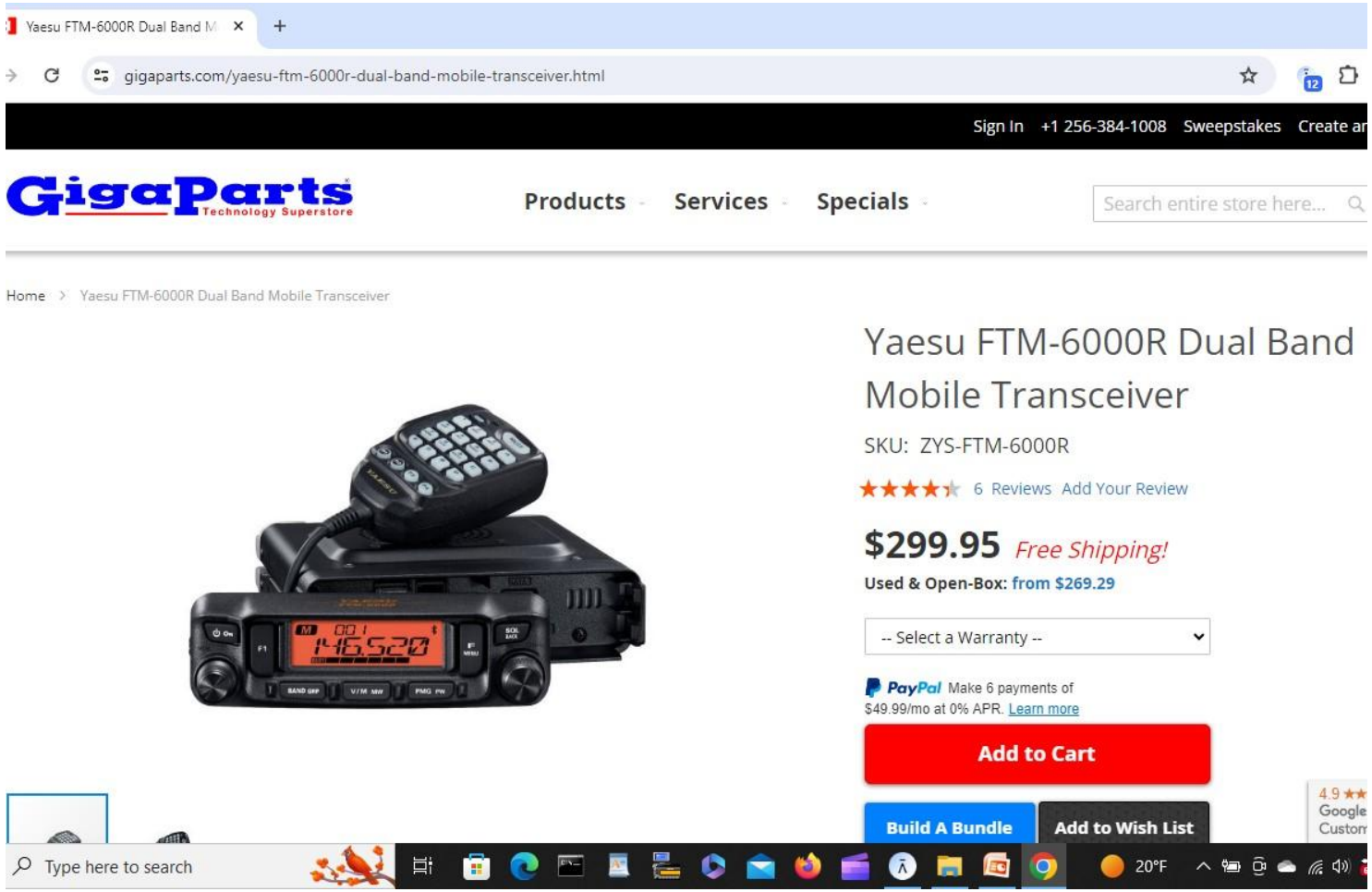
JCN. 12/27/23

SJ EOC VARA-FM Station Recommendations:

❖**USE A DEDICATED RADIO AND ANTENNA, 50W RF POWER OUTPUT, SUPERHET RECEIVER, WITH OUT-OF BAND FILTERING (NOT CHEAP CLONE RADIO). RECOMMEND YAESU FTM 6000R RADIO:**



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Recommended VARA-FM Station USB Sound Card ("Digital Radio Adapter"):

masterscommunications.com/products/radio-adapter/dra/dra50m.html

Custom Products for the *Digital Radio Amateur Enthusiast*

Model DRA-50M

A Radio Interface for Digital Two-Way Radio Applications

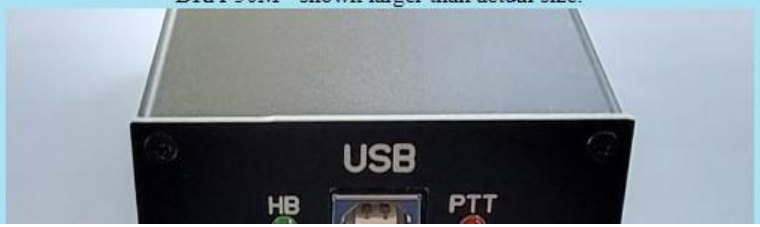
Pricing:
• **DRA-50M Unassembled Kit with Metal Case (Blue or Black) - $85.00 each.**
• **DRA-50M Assembled and Tested with Metal Case (Blue or Black) - $115.00 each.**
• **A (NO Case) option is not available - please click back and choose a DRA-50.**

The **DRA-50M** is available in a blue or black metal case.
The "M" Series is designed to fit our Metal-SC Cases and are easier to set-up and use.
They don't require adapter rails or hardware.
The board slides directly into the side rails of the metal case.

Article on the differences between the DRA-50 and DRA-50M

Shipping and handling is calculated at checkout for US and International orders.
First-Class shipping available to most locations worldwide, calculated at checkout.
Most Credit Cards & PayPal accepted - order below.

DRA-50M - shown larger than actual size.



masterscommunications.com/products/radio-adapter/dra/dra50m.html

VARA-FM Station USB Sound Card Kenwood D-710 Radio Interface Cable:

masterscommunications.com/products/cables/drac-12.html

DRAC-12 Cable.

Description:

The DRAC-12 Cable is a high-quality 6-foot Mini-DIN-6 cable that connects the DRA-36, DRA-50 or DRA-70 radio adapters to radios that have a

It can also be used with the RA DIN-6 and DRA DIN-6 Adapters and the Alinco-6 Adapter in the same manner.

It's a straight through Male-to-Male DIN-6 (PS2 "type") cable.

These are good quality cables and have all conductors present.
(Not all cables have all 6 conductors populated. Some pins are therefore missing connectivity.)

Secure PayPal Ordering:
Quantity can be changed at PayPal after pressing the "Add to Cart" button.

DRAC-12 Radio Cable

VARA-FM Station USB Sound Card
Yaesu FTM 6000R Radio Interface Cable:

le for the DRA series | 6 Pin Mini Din TNC Cables

hammadeparts.com/shop-for-cables/ols/products/yaesu-ct-167-10-pin-mini-din-cable-to-either-db9-or-5-pin-din-plug/v/YS-CT-167-10-6-PIN1

ll Products / Amateur Radio TNC Cables / 6 Pin Mini Din TNC Cables

Yaesu CT-167 10 pin mini din cable to either DB9, 5 pin din, Mobilinkd 3.5mm TRRS plug, DigiRig version 1.6 & Up 3.5 mm TRRS Plug, 6 pin mini din plug, PK-88 8 Pin Mic Plug - 3 ft cable length

$49.95

TNC Connector

6 Pin Mini Din male Plug - 9600 Baud (Backordered)

Backordered

Quantity

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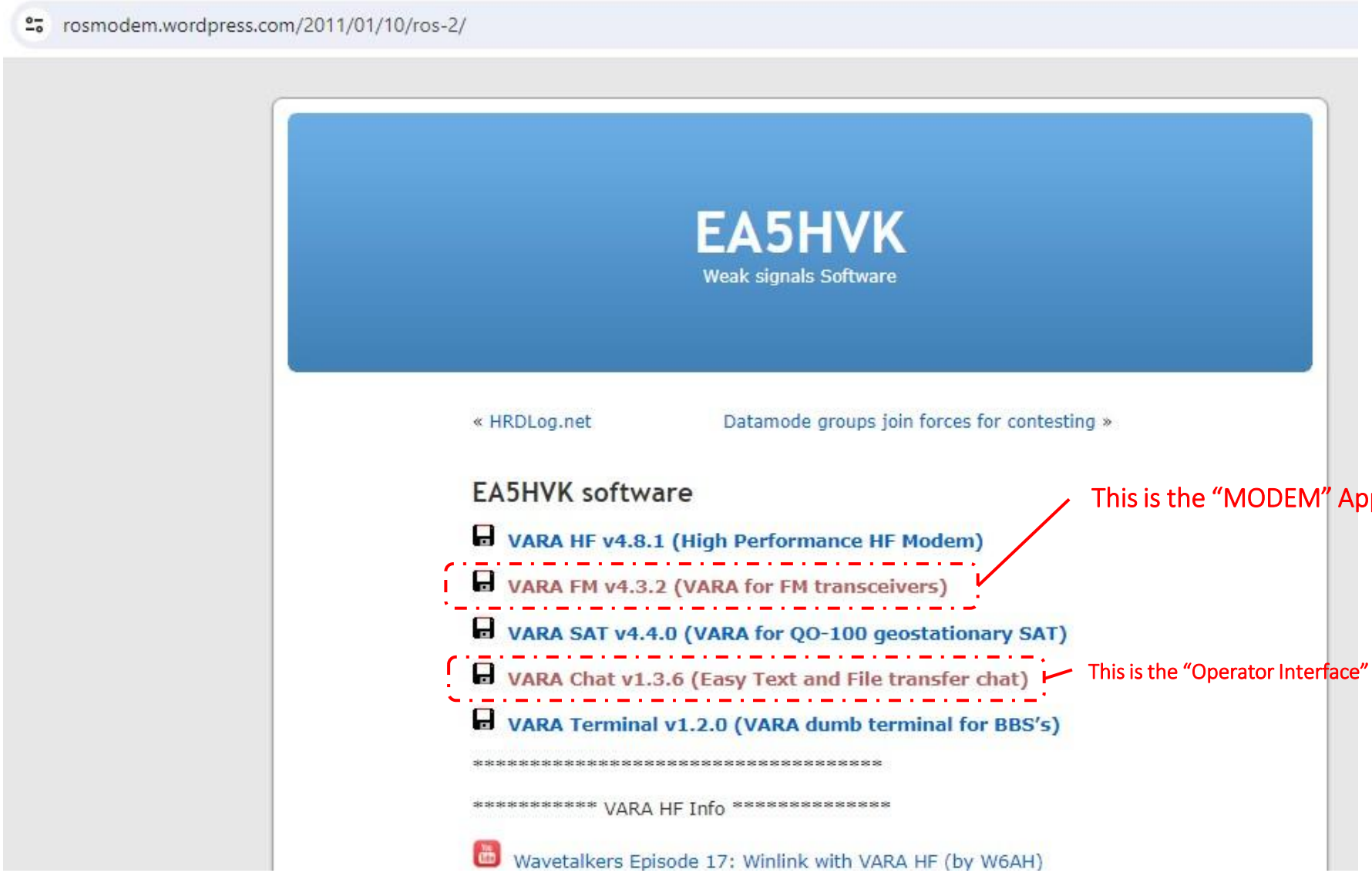
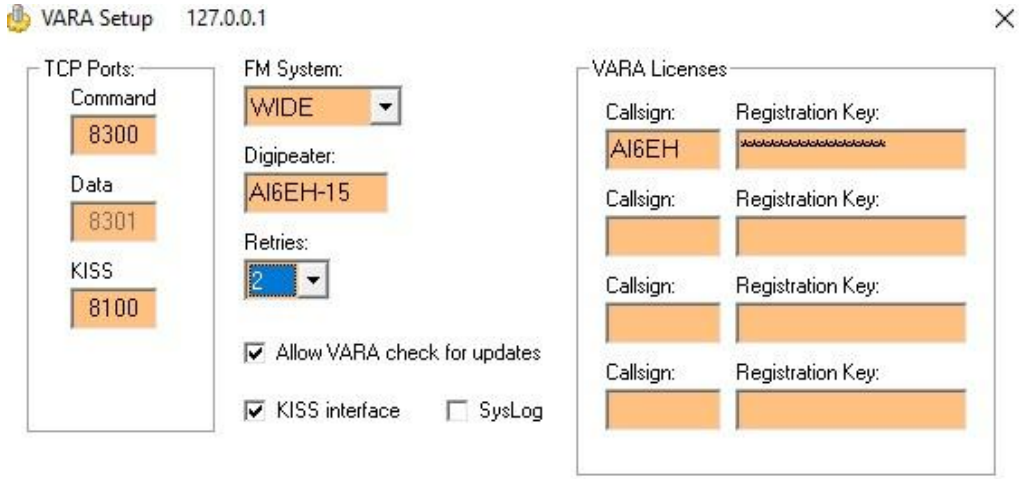
EA5HVK VARA Software (Windows Only) Download:

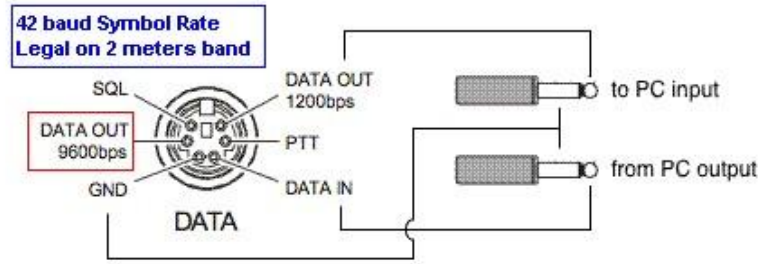


This is the "MODEM" Application

This is the "Operator Interface" Application

VARA-FM Software Configuration Example:



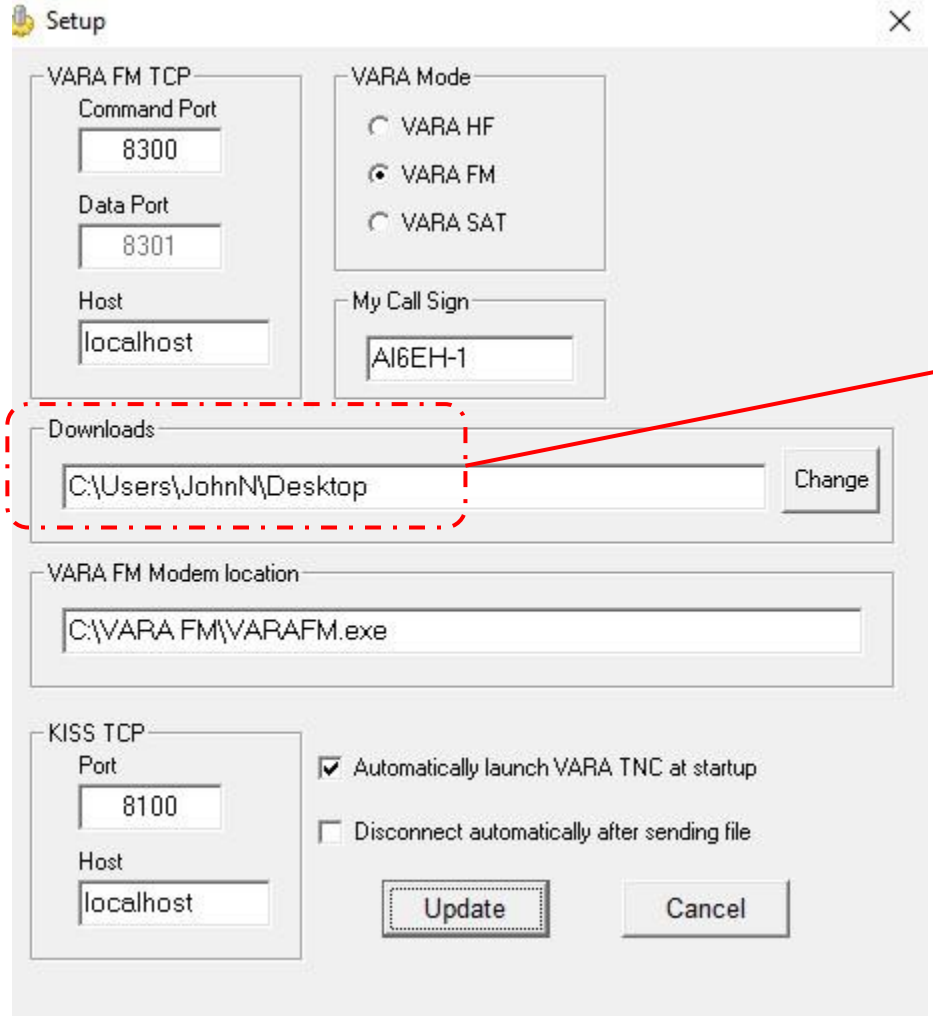


* VARA FM WIDE needs a FM rig set for 9600 Packet operation, with a special soundcard interface (6 kHz BW) connected to rear panel: RA-Board, Signalink "Black" transforms, Modified Signalink (red audio transforms removed), homebrew interface (a simple direct cable)…

* In other case, you must select VARA FM NARROW

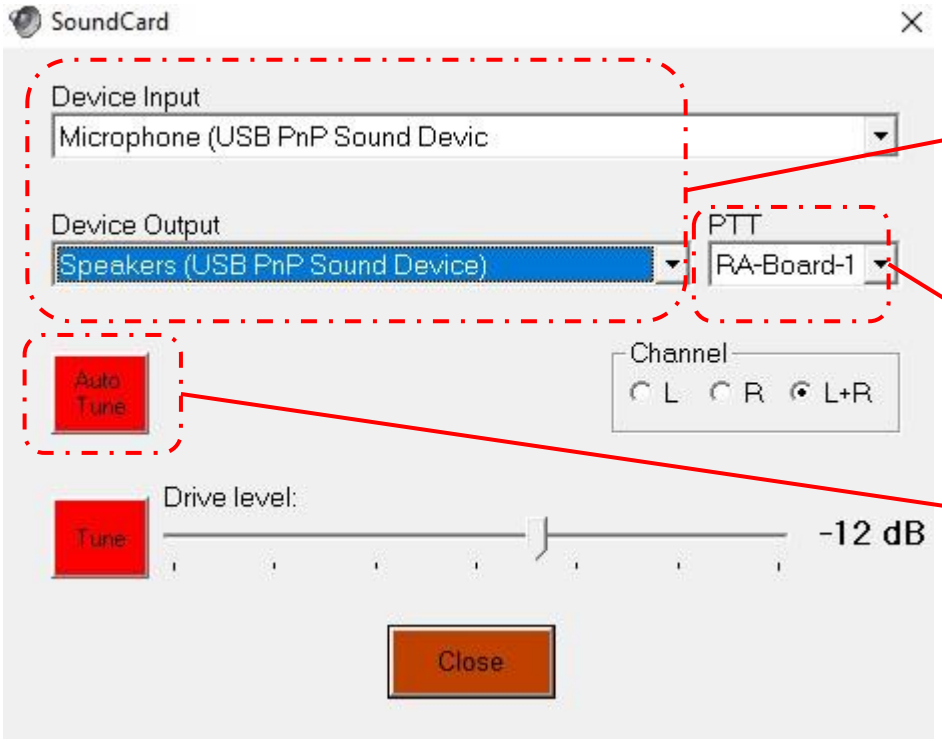
Close

VARA-Chat Software Configuration Example:



This is Where Files Sent to You are Stored

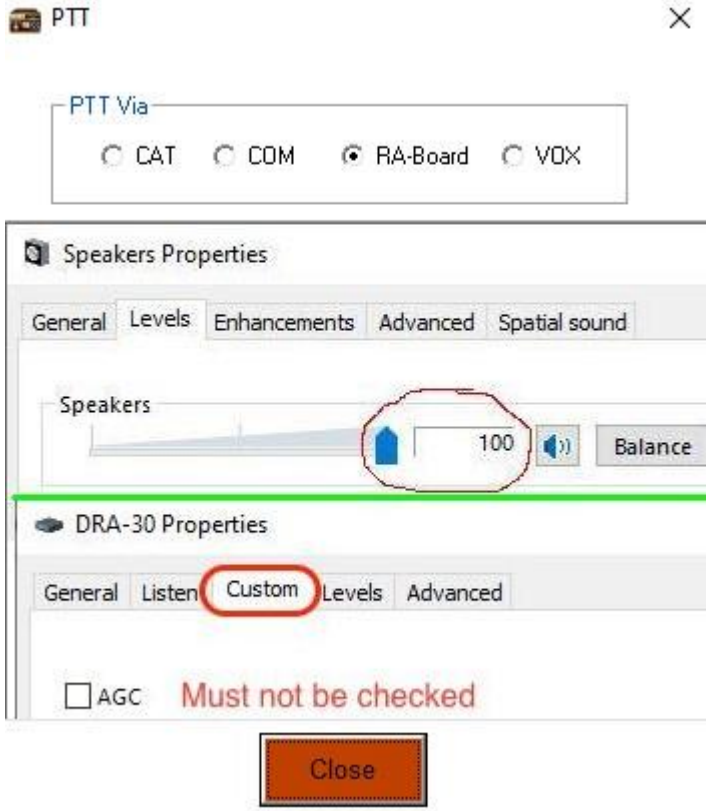
VARA-FM Software Configuration
Soundcard & PTT Examples:



Since the Radio Interface is a USB "Soundcard" make sure both these say "USB"

Radio "Push-To-Talk" is keyed by the Digital Radio Adapter ("Soundcard")

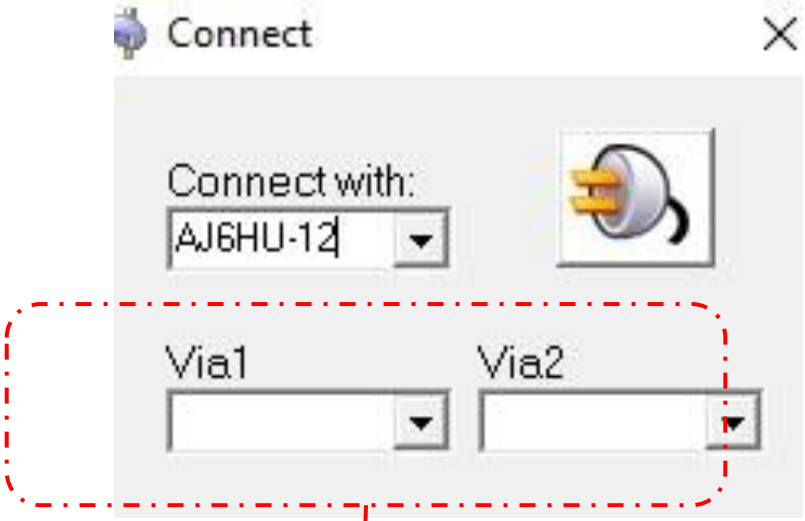
You Can Let the VARA-FM Software Set your Transmit Audio Level by Connecting with Another Station. (This is Very Slick!)



VARA-FM Software Ping & Connect Examples:

You Can Get a Signal Report by "Pinging" a Station before Connecting with them.

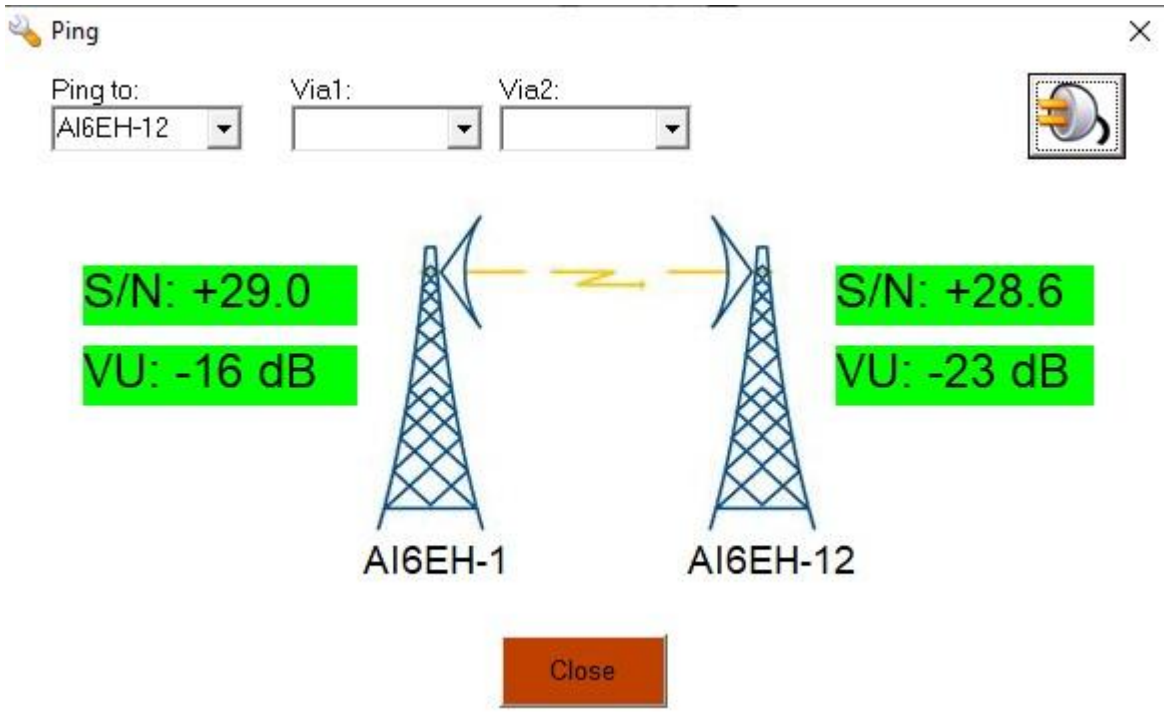
(This is the "EXECUTE" Button)



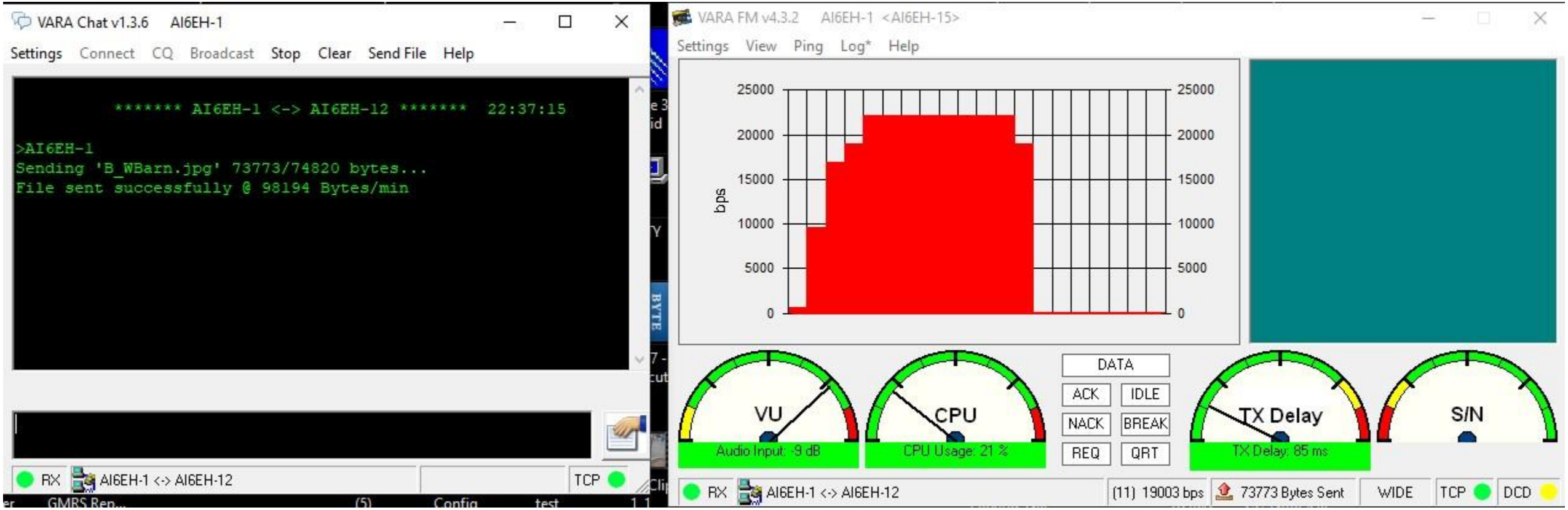
You Can "DIGIPEAT" thru one or two Intermediate Stations (at Lower Throughput)

Close

VARA-FM Software Ping & AutoTune Results:



VARA Chat File Transfer Results:



How to Use VARA:

Generally:

- ❖THINK OF SENDING A FAX, POINT-TO-POINT
- ❖LISTEN ON THE RADIO CHANNEL BEFORE TRANSMITTING
- ❖NEVER USE A RADIO CHANNEL USED FOR PACKET MESSAGING. (VARA TAKES UP THE WHOLE CHANNEL).

Operating:

- ❖USE VARA Chat “BROADCAST” FOR KEYBOARD-TO-KEYBOARD CHAT WITH OTHER STATIONS
- ❖USE VARA Chat “BROADCAST” TO ADVISE OTHER STATIONS THAT YOU WILL BE SENDING A FILE
- ❖“PING” THE DESTINATION STATION TO MAKE SURE THEY ARE ON-LINE
- ❖SELECT “FILE SEND” AND POINT TO THE FILE YOU WANT TO SEND
- ❖CLICK ON THE “POWER PLUG” ICON.