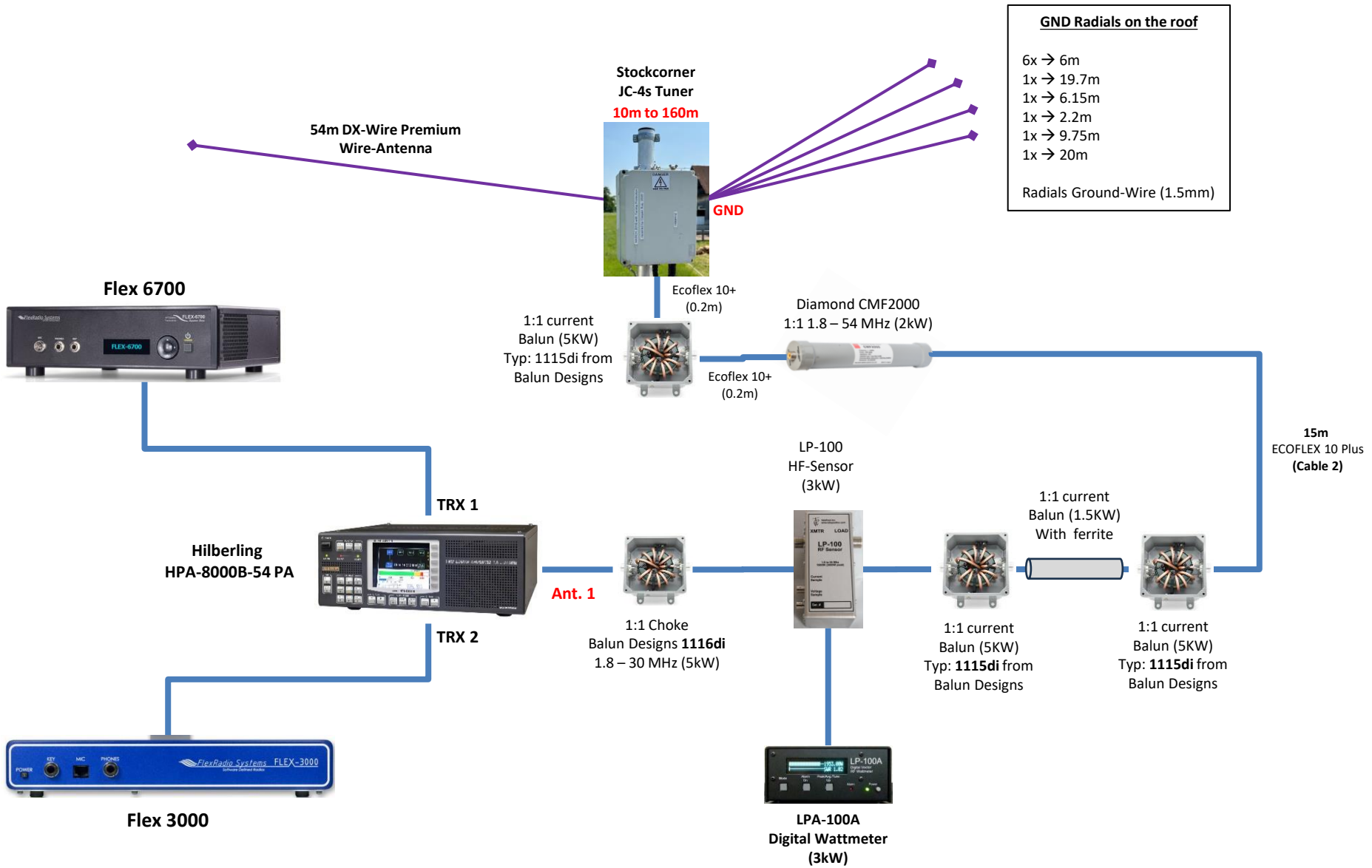


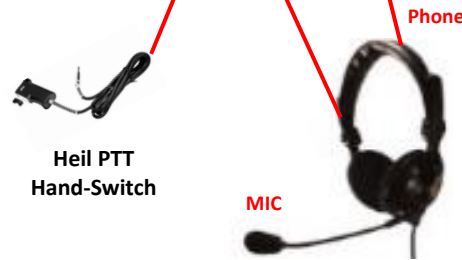
Flexradio 6700 and Flex 3000 with Hilberling HPA-8000B-54 PA and JC-4s Tuner



Flex 3000



Heil AD-1-YM (YAESU)



Heil PTT Hand-Switch

Heil Pro Set HC6 Headset

Flex 3000



Heil CC-1-XLR-YM (YAESU)



Heil PR-781 Gold

Heil SB-2 Mount

speaker



ICOM SP-34 Speaker

Generating Element	Heil PR Dynamic
Frequency Response	50 Hz - 16 kHz
Polar Pattern	Cardioid
Impedance	600 ohms balanced
Output Level	-55 dB
Diaphragm	Low-mass aluminum
Weight	14 oz.
Finish	Black Satin Epoxy

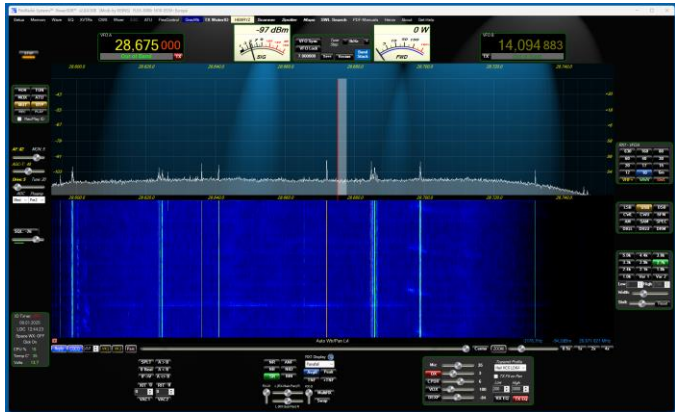
Flexradio 3000

Flex 3000

- 160m – 6m
- 100 W Output
- Built in Tuner (ATU)
- 3.2 kg



PowerSDR v2.8.0.308 by KE9NS



Firewire

Data-Transfer rate:
 FireWire A up to 400 Mbps
 FireWire B up to 800 Mbp

PCI Firewire Card



HAM PC (Windows 11)

Power Mate for VFO



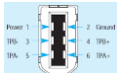
USB

USB, COM 10, 57'600

Digitus USB Serial (DB9)

Hilberling PA (TRX 2 → INPUT 2)

Firewire A



PTT OUT

13.8V / 25A

Ant. Hilberling PA TRX 2

RY 2 (Cinch)

Flex 3000



Heil AD-1-YM (YAESU)

Phone

MIC

Heil PTT Hand-Switch

Heil Pro Set HC6

HPA-8000B	FTDI DB9M
Pin 12 (RS232 TX)	Pin 2 (RxD)
Pin 24 (RS232 RX)	Pin 3 (TxD)
Pin 13 (GND)	Pin 5 (GND)

DB25



Flexradio 3000 with Hilberling HPA-8000B-54 PA

Hilberling HPA-8000B-54 PA Modified Input from 13dB to 10dB

Flex 3000 Output	Hilberling PA Output
Drive 5 (5.86W)	393 Watt
Drive 7 (9.8W)	490 Watt
Drive 11 (15W)	639 Watt
Drive 15 (21.1W)	825 Watt
Drive 20 (24.1W)	994 Watt

FLEX-3000 Config
S/N: 1610-0539
Soft ver:v2.8.0.308_Europe
Firmware: 2.1.4.12
TRX: 1310-0049 (35I)
PA: 1410-0025 (36K)

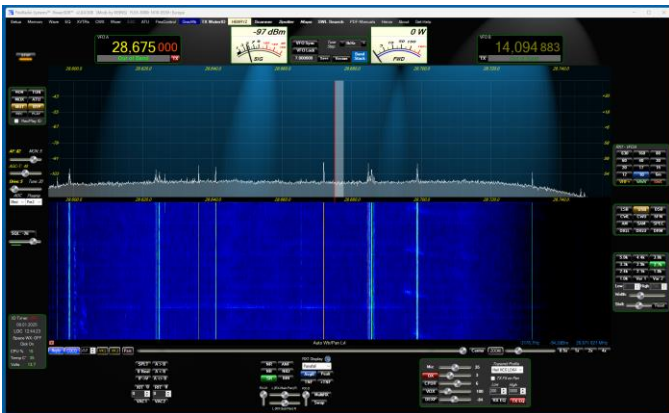
ATU: Present (5A)



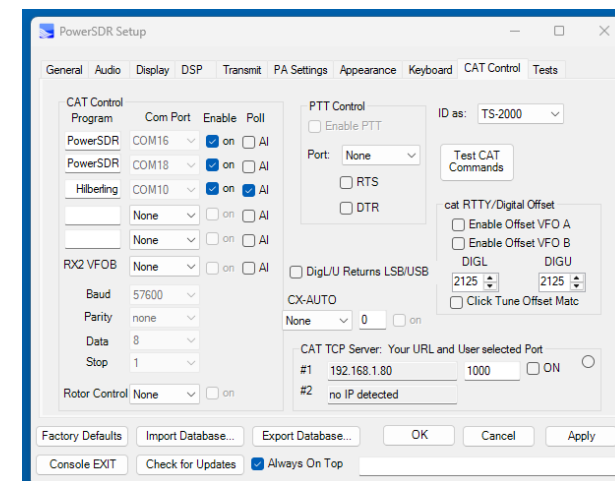
Ant. 1

JC-4S
Tuner

PowerSDR v2.8.0.308 by KE9NS



PowerSDR CAT Control



Power Mate for VFO



HAM PC
(Windows 11)



USB

USB, COM 10, 57'600

Digitus USB
Serial (DB9)

Hilberling PA (TRX 2 → INPUT 2)



DB25

RY 2 (Cinch)

Flex 3000



Heil AD-1-YM
(YAESU)

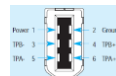
Phone

MIC

Heil PTT
Hand-Switch

Heil Pro
Set HC6

Firewire A



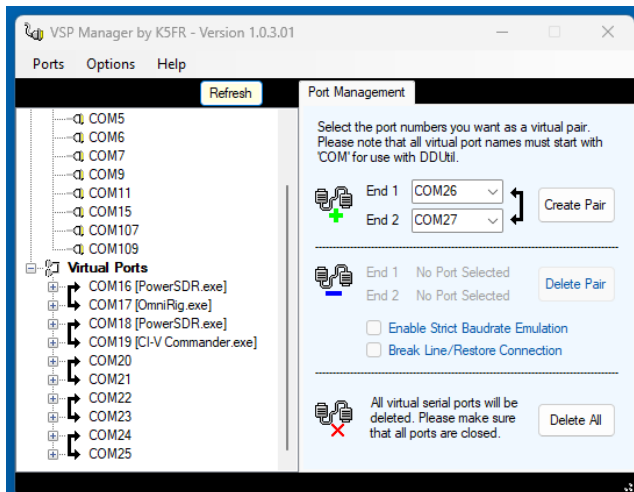
13.8V / 25A

Ant. Hilberling PA
TRX 2

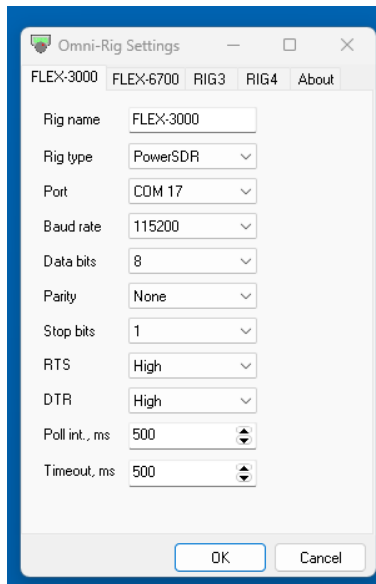
PTT OUT

HPA-8000B	FTDI DB9M
Pin 12 (RS232 TX)	Pin 2 (RxD)
Pin 24 (RS232 RX)	Pin 3 (TxD)
Pin 13 (GND)	Pin 5 (GND)

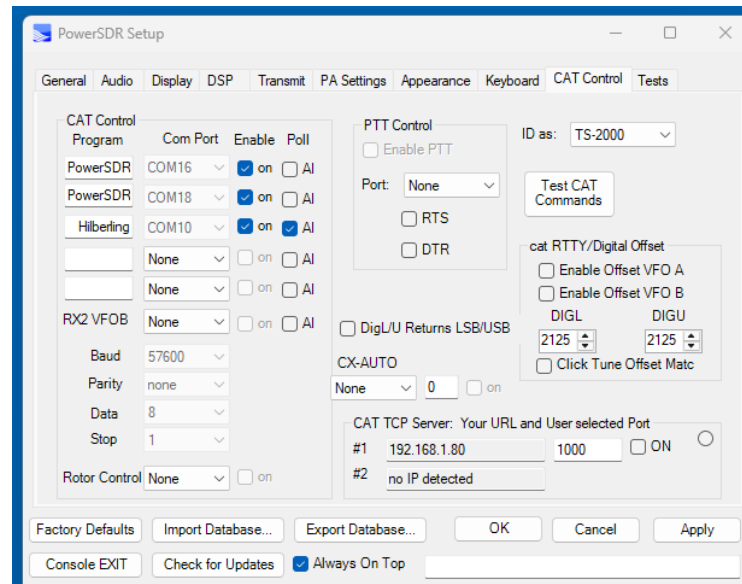
VSP Manager by K5FR v1.0.3.01



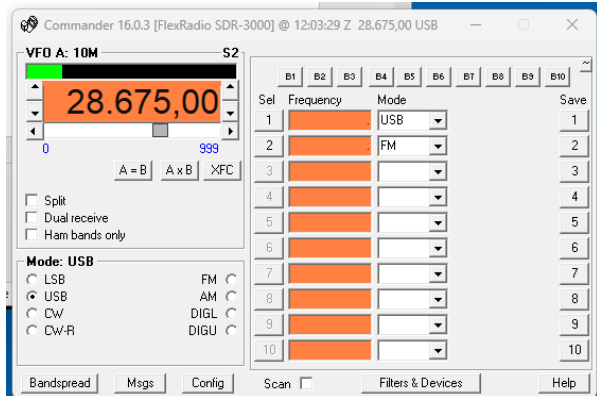
Omnirig v.20



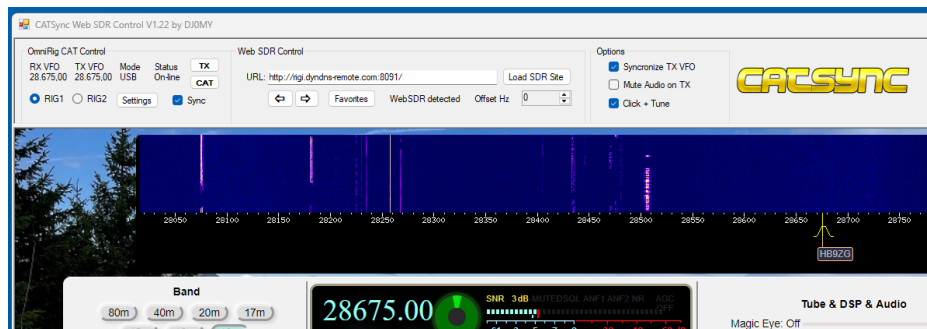
PowerSDR CAT Control



DXlabs Commander v16.0.3



CatSynch v1.22



- Hilberling PA
- Log4OM, JTDX and CatSynch via Omnirig
- DXlabs Commander

- COM 10 via USB/Serial Adapter
- COM 17 via VSP
- COM 19 via VSP

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Hardware Config Options Calibration Filters RX2 Navigation User Interface

FLEX-3000 Config
S/N: 1610-0539
Soft ver: v2.8.0.308_Europe
Firmware: 2.1.4.12
TRX: 1310-0049 (35I)
PA: 1410-0025 (36K)

ATU: Present (5A)

DDSS
 Expert

Receive Only. But PTT performs a Start-Stop of the Receiver

PTT Hang Timer 150 mSec

Fan Temp Threshold (°C): 50

SpaceBar Hold to PTT
 SpaceBar Latch ON/OFF
 DttSP Auto Restart 0

Auto Focus PowerSDR
 30min ID time
 Allow Windows Shutdown

Time-Out Timer Ready
180 Seconds

PFN Crash delay 650 mSec

Auto Start PowerSDR

Factory Defaults Import Database... Export Database... OK Cancel Apply

Console EXIT Check for Updates Always On Top

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Hardware Config Options Calibration Filters RX2 Navigation User Interface

Options

Spur Reduction
 Disable PTT

Enable TX Out Delay
TX Out Delay: 1

All Mode Mic PTT

Disable Split on Mode Change
 Disable Split on Band Change

Click Tune / Filter Offsets
DIGU (Hz): 1500
DIGL (Hz): 2210
 Cat Digital Offset Matc

Strict DB Import Compliance
 Show ATU PopUp

Update BandText
 Reset/Update Band Stack

Process Priority
Real Time

Miscellaneous
 Always On Top
 Disable ToolTips
 Snap Click Tune
 Zero Beat - RIT
 Mouse Tune Step
 Wheel Tunes
 VFOB (red x-hairs)

Keyboard
 Enable Shortcuts
 Quick QSY

Custom Title Text

Wheel Reverse
 Flex AMP PTT control and IIC Flex/Wire AMP control
 VFO Lock A / B
 IIC Flex/Wire AMP ON/OFF

PM2 Use PowerMaster for Watts and SWR 0

User Interface

PowerMate and FlexControl


PowerMate Knob Active

PowerMate Speed: 3.0

Push VFO select VFOB

Alt Tune Step Rate(s):
- 50Hz + Alt #1
- 100Hz + Alt #2 (knob push)

Alt1-2 Tune Step for PowerMat
 Alt1-2 Tune Step for FlexContr



VAC1 → PC Speaker or Audio Cable for JDTX (FT8)

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Primary VAC 1 VAC 2

Expert

Buffer Size: 2048

Sample Rate: 192000

Latency (ms): 0

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Primary VAC 1 VAC 2

Enable VAC1 Select A

Virtual Audio Cable Setup (to/from PC) A

Driver: MME

Input: PC rec: Microsoft Soundmapper - Inp
Output: PC play: Microsoft Soundmapper - Out

Buffer Size: 2048

Gain (dB): RX: -2 TX: 0

Sample Rate: 48000

Mono/Stereo: Mono Stereo

Direct I/Q: Output to VAC Calibrate I/Q

Buffer Latency (ms): A: 120 B: 120

Select B

Virtual Audio Cable Setup (to/from PC) B

Driver: MME

Input: PC rec: Microsoft Soundmapper - Inp
Output: PC play: Microsoft Soundmapper - Out

Allow PTT to override/bypass VAC for Phone
 Mix VAC1 and MIC audio
 Reset VAC every hour

Auto Enable
 Enable for Digital modes on Mode change. Disable for all other mode

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Spectrum Grid

Max: -19 Min: -121 Min2: -121 Step: 6 Align: Auto

Refresh Rates
Main Display FPS: 25
 Fill Panadapter
Peak Text (ms): 500
CPU Meter (ms): 1000

Phase Mode
Num Pts: 100
Averaging Time (ms): 350

Scope Mode
Time (us): 50

3D Pan Hi-Res PanaFall
 Avg Pan Move Enable PolyPhaseFFT

Waterfall
Band for Low/High Levels: 10 meters
Low Level: -116 High Level: -80
RX2 Level: -130 TX Level: -96
Low Color: Averaging Time (ms): 30
Update Period (ms): 30

Multimeter
Analog Peak Hold (ms): 1000
Digital Peak Hold (ms): 500
Average Time (ms): 1000
Analog Refresh (ms): 30
Digital Refresh (ms): 100

Enable weak signal display optimization
 Enable wider waterfall before refresh

auto grid level: MultiRX Auto Reset
auto wtr level: Split TX Listen
AGC-T line adj: VFO Dials auto wtr/pan

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Options Image Reject Keyer AGC/ALC

NR
Taps: 40 Gain: 6 Delay: 7 Leak: 1

ANF
Taps: 68 Gain: 25 Delay: 60 Leak: 1

Buffer Size
Phone RX: 4096 TX: 4096
CW RX: 4096

Digital
RX: 4096 TX: 4096

Noise Blanker
Threshold: 18 Width: 7 Delay: 3

Noise Blanker 2
Threshold: 13

Use NR, ANF, and NB settings for RX2

Window: Hanning

Use Peak Readings for TX Meter DSP Values

TNF Notch Width (Default 100): 100

General Audio Display DSP Transmit PA Settings Appearance Keyboard CAT Control Tests

Profiles: Heil HCG LOKAL

Transmit Filter
High: 3000 Low: 200 Drive Max: 100

AM
Carrier Level: 6.0

DE / Noise Gate
 Enabled
Threshold (dB): -84 Attenuate (%): 80

Monitor
MON Vol: 5

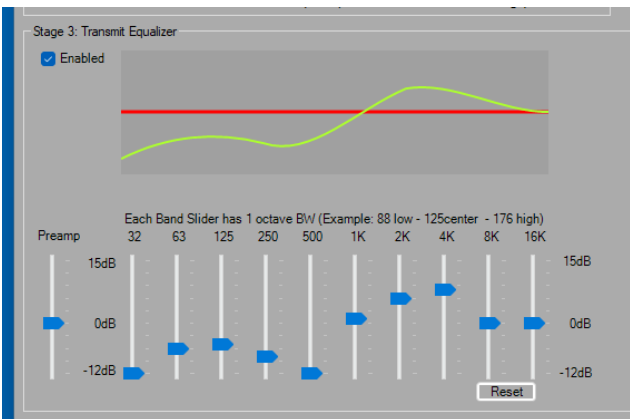
VOX
 Enabled
Sensitivity: 100 Delay (ms): 250

TUN uses TX3 Jack Wider TX/WaterID

Additional TX Profiles
Default Default DX FHM-1 FHM-1 DX Digi 1K@1500 Digi 1K@2210 AM

TX 2nd Meter Active Move 2nd Meter
 Save Drive per Band and per Mode

10 Band EQ



Mic 35
DX 3
CPDR 6
VOX 100
DEXP -84

Transmit Profile
hb9ryz
 TX Fit on Pan
Low 200 High 2900
RX EQ TX EQ

FLEX-3000 Audio Mixer

Input (Stage 1)
Mic FlexWire In

Output
Pow Spkr Out Head Phones FlexWire Out

Mute All Inputs Mute All Outputs

-12 -6 -5 -8 -12 +1 +6 +8 0 0