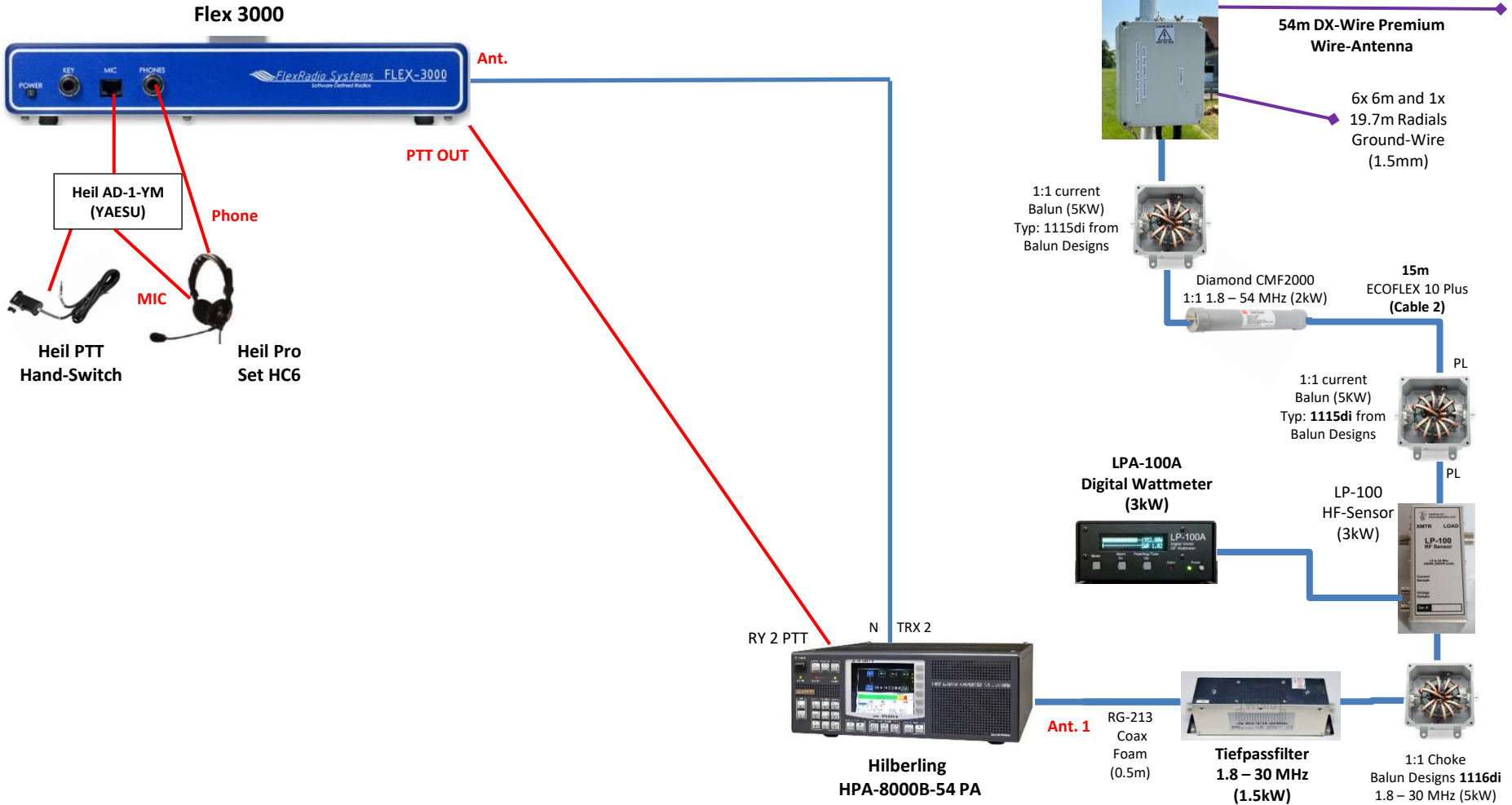


# Flex 3000 with Hilberling HPA-8000B-54 PA and JC-4s Tuner



# Flex 3000

The Flex 3000 will be 15 years old in May 2025!

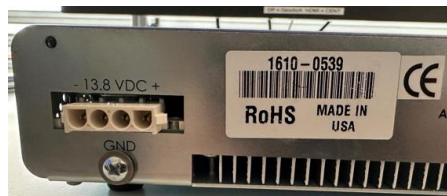
HB9RYZ

[www.hb9ryz.ch](http://www.hb9ryz.ch)

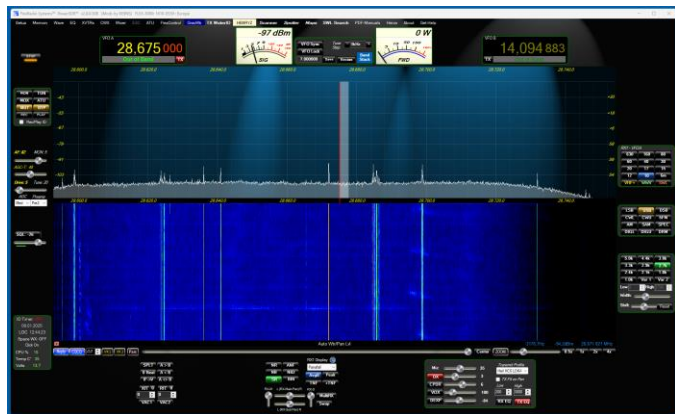
8.1.2025

## Flex 3000

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



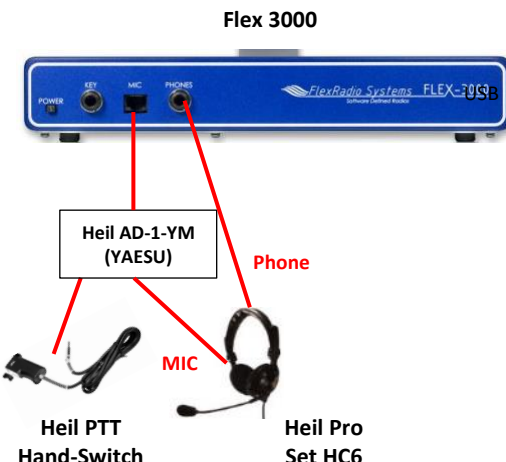
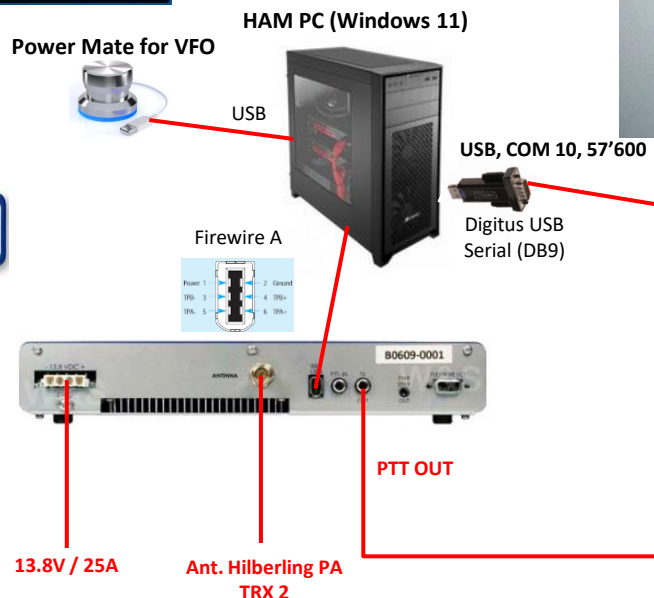
## PowerSDR v2.8.0.308 by KE9NS



## Firewire

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

PCI Firewire Card



## Hilberling PA (TRX 2 → INPUT 2)

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

RY 2 (Cinch)

# Flex 3000 with Hilberling HPA-8000B-54 PA

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

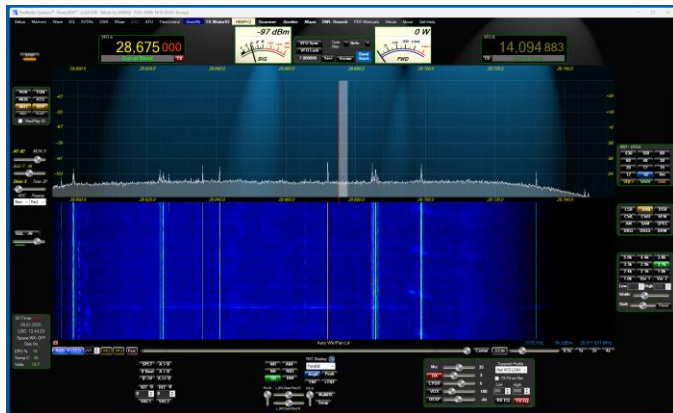
Flex 3000 Output	Hilberling PA Output
Drive 5 (5.86W)	393 Watt
Drive 7 (9.8W)	490 Watt
Drive 11 (15W)	639 Watt
Drive 15 (21.1W)	825 Watt
Drive 20 (24.1W)	994 Watt

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)

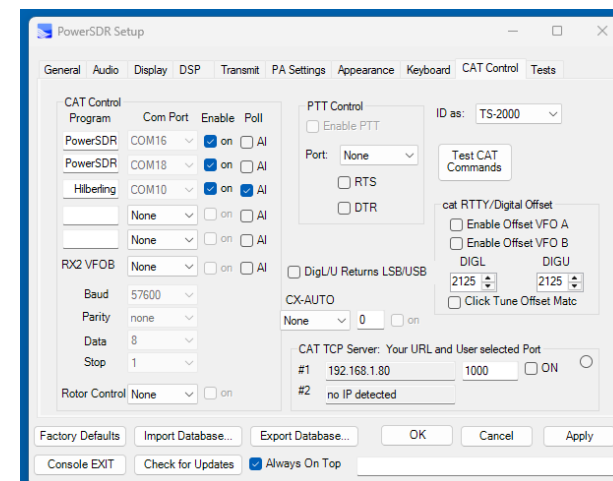


Ant. 1  
JC-4S  
Tuner

PowerSDR v2.8.0.308 by KE9NS



PowerSDR CAT Control



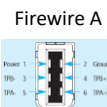
Power Mate for VFO



HAM PC  
(Windows 11)



USB  
USB, COM 10, 57'600  
Digitus USB  
Serial (DB9)



Firewire A



13.8V / 25A

Ant. Hilberling PA  
TRX 2

PTT OUT

Hilberling PA (TRX 2 → INPUT 2)

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



RY 2 (Cinch)

Flex 3000



Heil AD-1-YM  
(YAESU)

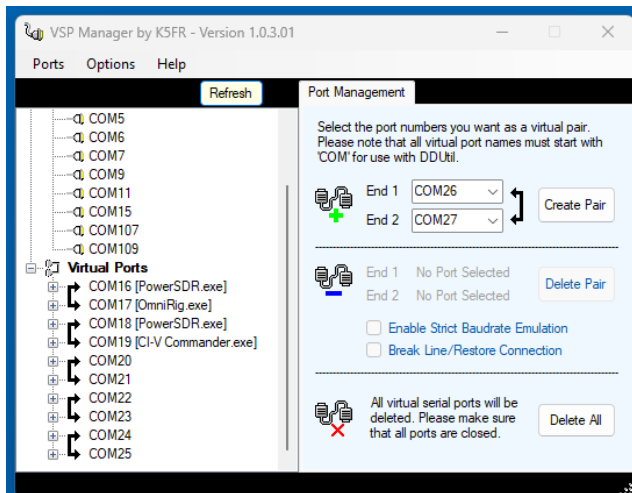
Phone

MIC

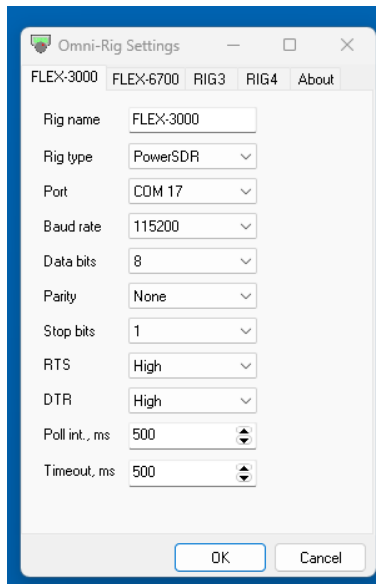
Heil PTT  
Hand-Switch

Heil Pro  
Set HC6

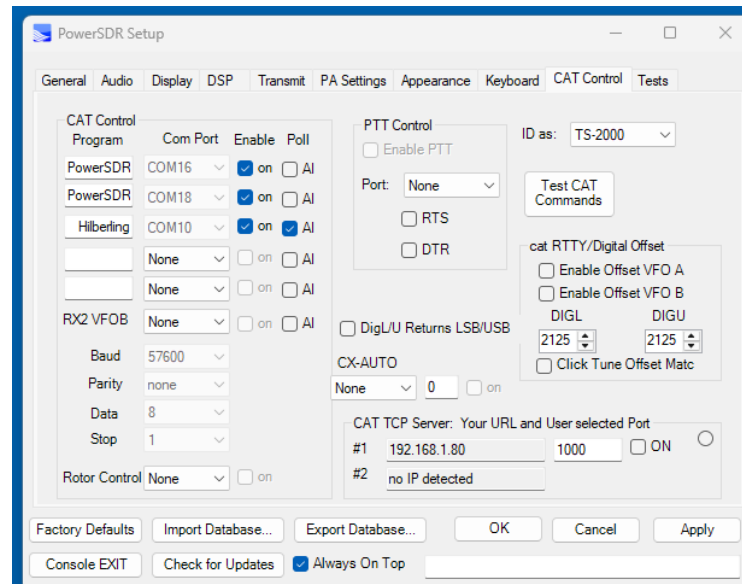
VSP Manager by K5FR v1.0.3.01



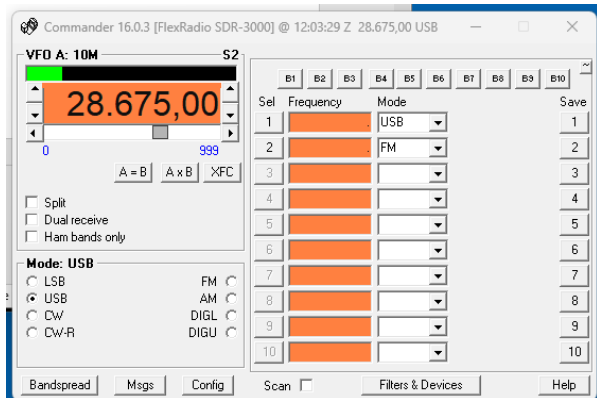
Omnirig v.20



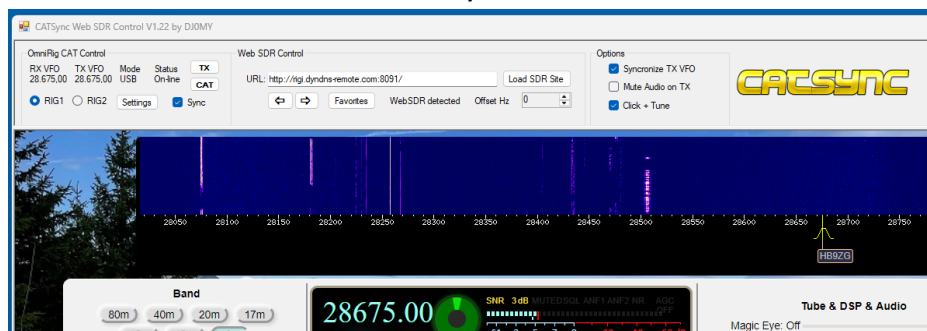
PowerSDR CAT Control



DXlabs Commander v16.0.3



CatSynch v1.22



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

- COM 10 via USB/Serial Converter
- 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)

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

Time-Out Timer Ready

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

Process Priority: Real Time

Miscellaneous

Keyboard

Click Tune / Filter Offsets

Update BandText

Reset/Update Band Stack

User Interface

PowerMate and FlexControl

PowerMate Knob Active


PowerMate Speed: 3.0

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

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: Microsoft Soundmapper - Inp

Output: Microsoft Soundmapper - Out

Buffer Size: 2048

Sample Rate: 48000

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

Direct I/Q

Calibrate I/Q

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

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

Spectrum Grid

Refresh Rates

Phase Mode

Scope Mode

Waterfall

Multimeter

Enable wider waterfall before refresh

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

Options Image Reject Keyer AGC/ALC

NR

ANF

Buffer Size

Noise Blunker

Noise Blunker 2

Window: Hanning

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

Profiles

Transmit Filter

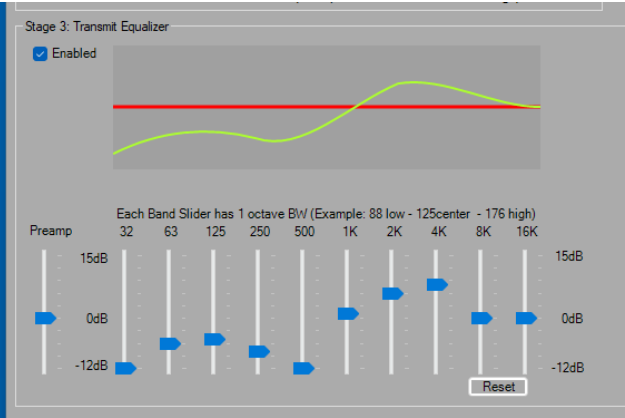
AM

DE / Noise Gate

VOX

MON Vol: 5

## 10 Band EQ



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

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

## 28 Band EQ Test