

Flex Living Room Remote

HF radio from the couch while watching Eagles football game?

Radio Ridiculousness! Sheldon (k2men) and Jim (n2gxj)

Outline

- First impressions
- Does it work? CW, Digi, voice
- Couch Remote vs Distant Remote
- Questions and Answers, “Ask Mike”

Hallicrafters to SDR (RTL DSR)



When HF doesn't work so hot - SDRPlay

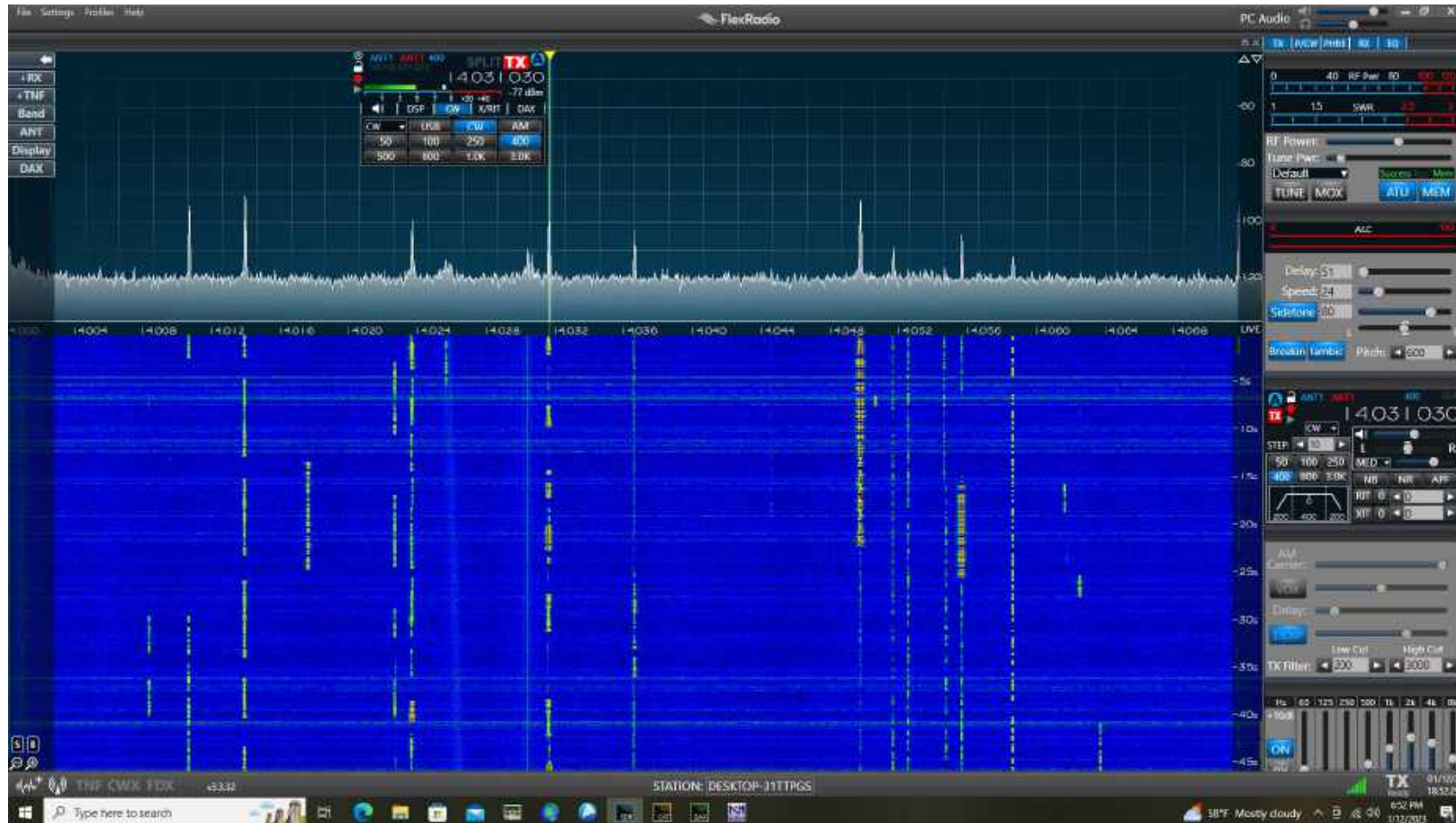


How operate no buttons or knobs?

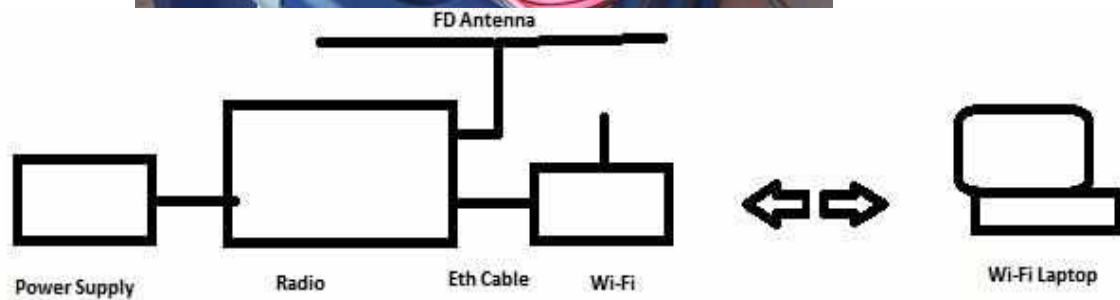
- A shock to the system!
- First impressions



FlexRadio SDR software



Field day setup



Flex Radio systems (<https://www.flexradio.com/>)

Does it work?

- CW?
- DIGITAL?
- VOICE?



[QST-2022-04-Ladisky.pdf](#)
By Richard Ladisky, WB1J

Remote operation can be done from a station that's in another part of your home, or one that's in another country.

CW?

The screenshot shows the FLEX-6000 Series Slice 1 interface. The top left displays the current frequency **14029.75** and mode **CW**. The main window is a log table with the following data:

TS	Call	Freq	M...	Snt	Rcv	Pfx	Name	Comment
2023-01-15 16:15	WA2TML	14025.00	CW	599	599	K	chuck	
2023-01-15 16:18	N2GXJ	14006.11	CW	599	599	K	Jim	
2023-01-15 16:18	AA2WN	14007.13	CW	599	599	K	Harry	
2023-01-15 16:18	N4NYY	14008.38	CW	599	599	K	Vinnie	
2023-01-15 16:19	KB2AYU	14012.08	CW	599	599	K	AL	
2023-01-15 16:19	NR2B	14014.11	CW	599	599	K	Santa	
2023-01-15 16:19	K3TS	14018.11	CW	599	599	K	Tony	
2023-01-15 16:20	WB2MNF	14019.51	CW	599	599	K	Jon	
2023-01-15 16:21	K2ZA	14022.56	CW	599	599	K	John	
2023-01-15 16:21	W2HUV	14025.85	CW	599	599	K	John	
2023-01-15 16:21	K2ATX	14029.75	CW	599	599	K	Harry	

On the left, a frequency display shows a scale from 14000 to 14050 kHz. Call signs are marked on the scale: K2ATX (at 14030), W2HUV, K2ZA, WB2MNF, K3TS, NR2B, KB2AYU, N4NYY, AA2WN, and N2GXJ.

The bottom window shows the CW control interface for K2ATX, including a menu (File, Edit, View, Tools, Config, Window, Help), a CW display, a speed control set to **S/P 24**, and a grid of function keys (F1-QRZ) and status indicators (Hdg 16°, LP 196°, 122mi 196km).

- Yes! CW example with N1MM

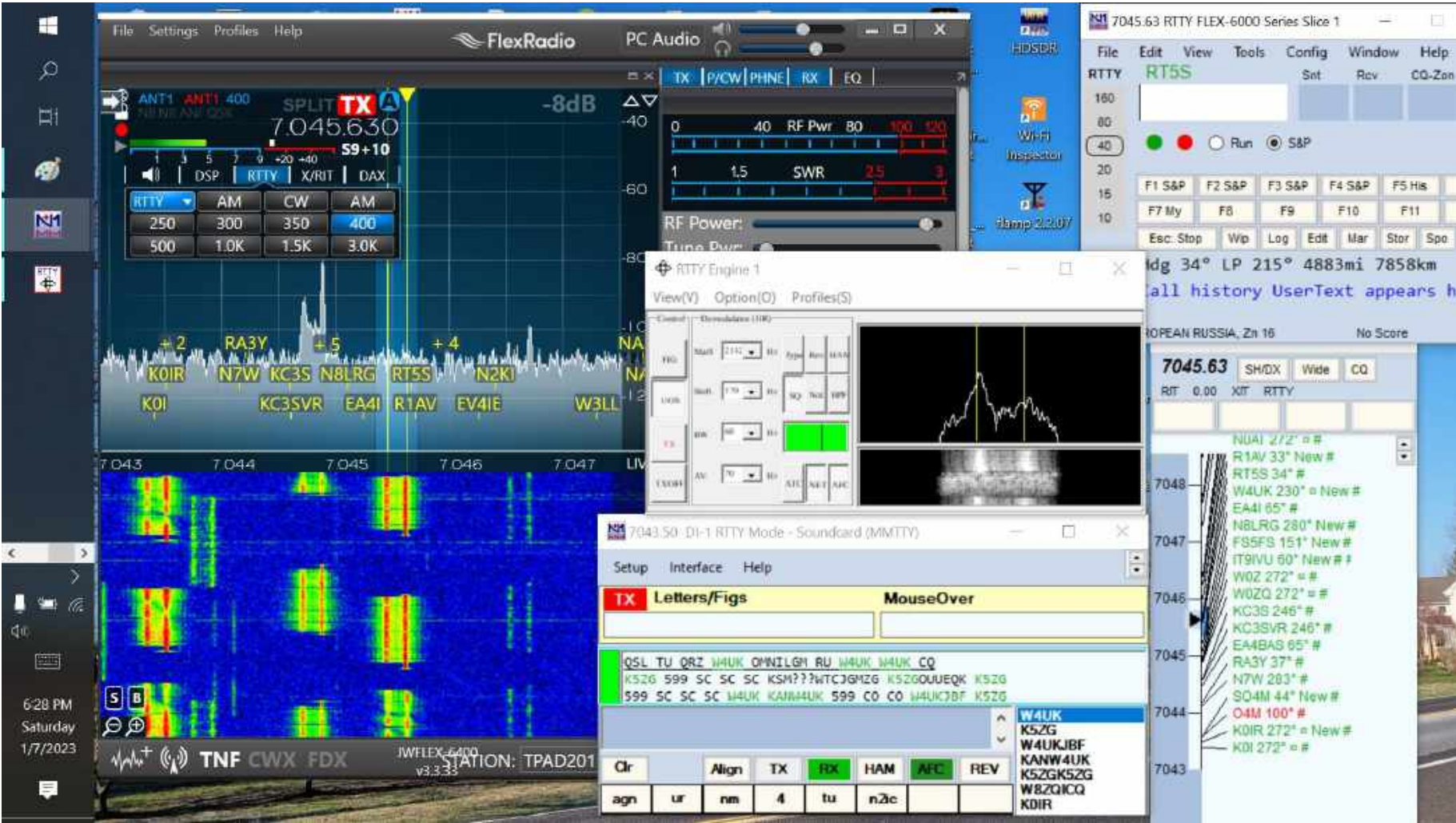
Digital?

The image displays two software windows. The left window is WSJT-X v2.5.4, showing a waterfall plot at the top and a 'Band Activity' table below. The table lists received signals with columns for UTC, dB, DT, Freq, and Message. The right window is GridTracker 1.22.1204, showing a world map with grid lines and dashed lines connecting various locations. A sidebar on the right of GridTracker displays statistics for 7.074.000 Hz (40m) on Wed 28 Dec 2022 04:30, including 'Rx Calls 148' and 'Rx DXCC 25'. The interface also shows a 'RECEIVE' button and various filter settings.

UTC	dB	DT	Freq	Message	UTC
043000	-8	0.1	1059	~ CQ DX AD5IT EM53 U.S.A.	04234
043000	-2	0.0	2359	~ CQ K6VHF DM43 U.S.A.	04241
043000	1	0.1	1637	~ CQ N5UYF EL49 U.S.A.	04246
043000	-8	0.2	1170	~ CQ CO2JD EL83 Cuba	04240
043000	-13	0.0	1310	~ CQ AK KC3HLT EM51 U.S.A.	04243
043000	-16	0.1	1069	~ CQ HP2NG F309 Panama	04244
043000	-14	0.2	984	~ CQ EA5HM IM99 Spain	04253
043000	-13	0.1	1473	~ CQ IMVFR EM90 U.S.A.	04260
043000	-9	0.1	712	~ CQ CO2MX EL83 Cuba	04263
043000	-8	0.0	1947	~ CQ KG4IXS FM06 a1 U.S.A.	04283
043000	-21	0.0	2857	~ CQ VE3N00 FN14 a1 Canada	04293
043000	-19	0.0	1801	~ CQ EA5JON IM97 a1 Spain	04293
043000	-21	0.3	1574	~ CQ WX5KR EL29 a1 U.S.A.	04293

- Yes! FT8 example integrated with WSJT and GridTracker

Digital?



- Yes! RTTY example with N1MM (check out the overlays on waterfall!)

Voice?

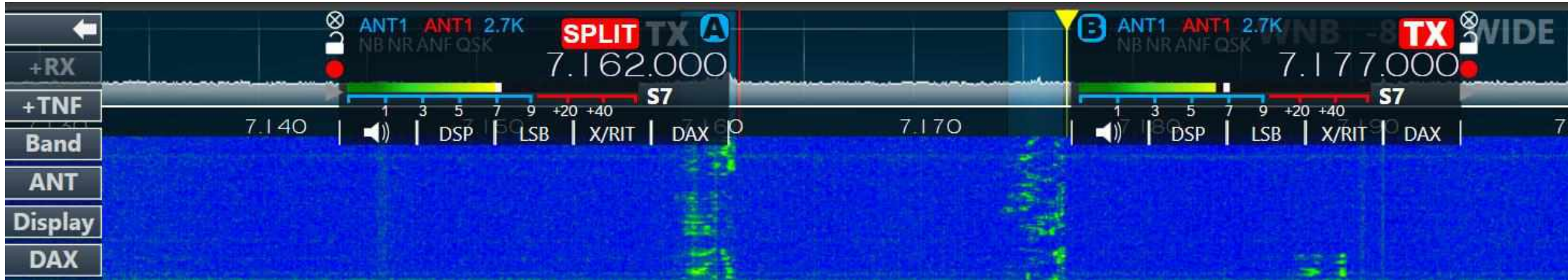
The screenshot displays the FlexRadio software interface. On the left, a window titled '28373.00 USB FLEX-6000 Series Slice 1' shows a call log table with the following data:

MM-DD HH:MM	Call	Freq
12-10 18:44	N9RV	28398.50
12-10 18:47	W0LSD	28348.00
12-10 18:48	K7WXB	28358.00
12-10 18:51	TI1K	28373.00

The main interface shows a frequency display at 28.373.000 MHz, a waterfall view with a spectrum plot, and various control panels on the right including RF Power, Tune Pwr, and VOX settings. The status bar at the bottom indicates 'JWFLEX-6400 v3.3.32 STATION: TPAD2015' and 'TX Ready'.

- Yes! USB voice on 10M example with N1MM

What about operating split?



- Yes! Independent multi-slice receivers
 - Enable multiple virtual radios on same radio at same time
- Simple example: operating “split”
 - Single user listens (RX) at one frequency, transmits (TX) at another

Multi-slice – can get wild!



- Same/different modes and/or same/different bands at same time? Yes
- Trick: run multiple copies of wsjt, each on different band at same time.....

C:\WSJT\wsjtx\bin\wsjtx.exe

C:\WSJT\wsjtx\bin\wsjtx.exe -rig2 name=DAX2

A real problem

- There's good DX, but the Comfy Couch and TV with the Eagles game on isn't in the radio room

What to do?



Spotter	Freq.	DX	Time	Info	Country
KA3JAW	29600.0	KI5TMS	21:59 15 Jan	FN20JQ<ES>EM10UN FM Sim 5X8	United States
KF0QS	21009.0	SM4OTI	21:59 15 Jan	true 589 in Colo	Sweden
EA2EAQ	7155.0	ES5TTT	21:59 15 Jan	TNX QSO 73	Estonia
K6PO	21019.0	N6W	21:59 15 Jan	WRTC Award 2023 CW	United States
DL5OAZ	10136.0	PJ4EVA	21:58 15 Jan	from -> FK52	Bonaire
K5ZG	14040.1	W1AW/0	21:58 15 Jan		United States
N8YXR	14270.0	K5EC	21:58 15 Jan	POTA	United States
DB6LL-@	5359.6	S01WS	21:58 15 Jan	FT8 -02dB 518 hz	Western Sahara
PU5YSV	21075.3	K4KAY	21:58 15 Jan		United States
KO4RKR	14235.0	VA3AAA	21:58 15 Jan		Canada
K4VTE	21075.3	VE3ELL	21:58 15 Jan		Canada
F6CBN-@	10137.9	YU1YJ	21:58 15 Jan	FT8 TNX 73's	Serbia
PY3IE	14285.0	ZV7W	21:57 15 Jan		Brazil
N7GND	24920.2	ZL3IO	21:57 15 Jan		New Zealand
W1HSB	7147.0	JH7MQD	21:57 15 Jan	FN41<>QN00	Japan

<http://dxsummit.fi/#/>

?



GCARC-show-us-your-shack

Remote radio!


Many choices today

Borrow someone else's radio

- [Echolink](#) (e.g. W2MMD's repeater)
- Free or Subscription/ Pay as you go (e.g. [WebSDR](#), [RH](#), [RHR](#))

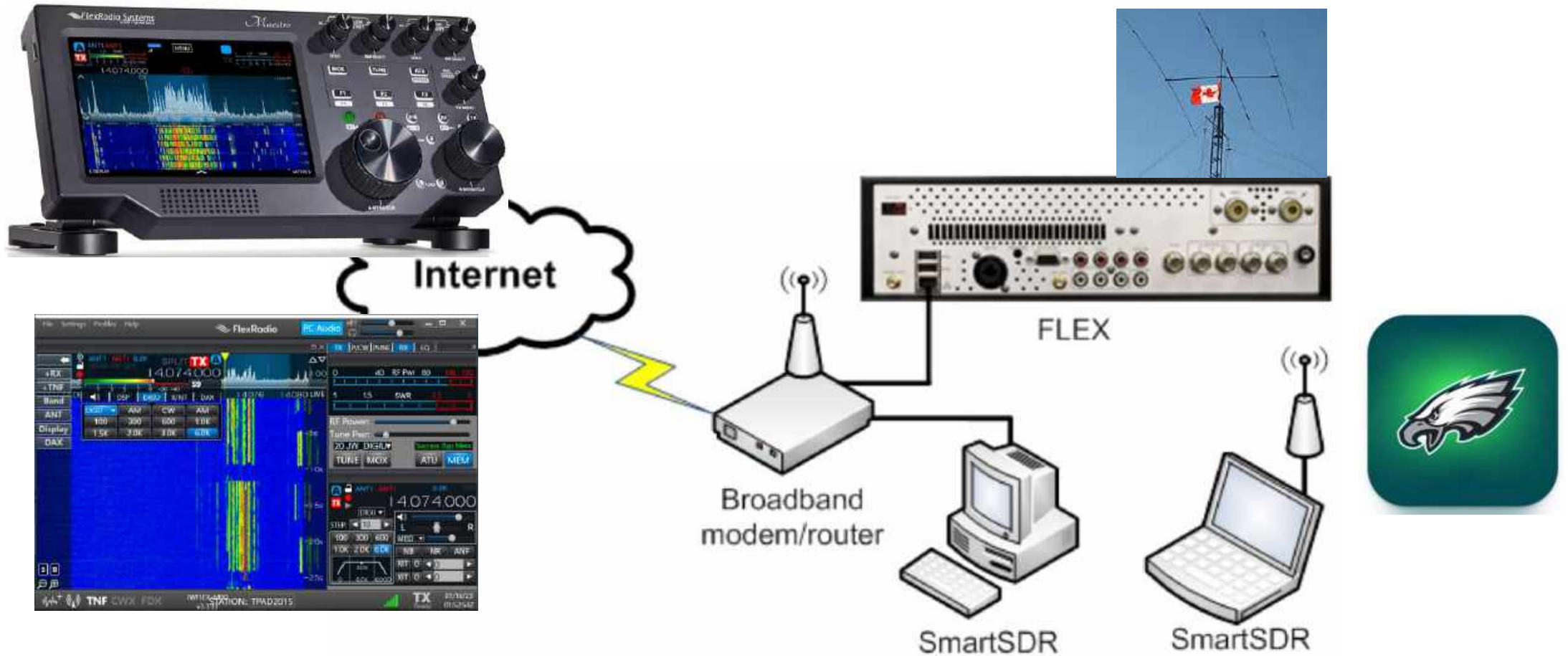
Remote your own radio

- [RCForb](#) (e.g. W2MMD's HF)
- RemoteRig (e.g. [RRC-1258Mkii](#))
- RigPi (e.g. [MFJ-1234C](#), [remotetx](#))
- [RealVNC](#), [Skype](#), etc
- Flex [Maestro](#)

Location and URL	Frequency range
 WebSDR at the University of Twente, Enschede, NL http://websdr.ewi.utwente.nl:8901/ JO32KF; 854 users	0.000 - 29.160 MHz



Local-remote or distant-remote!



<https://www.flexradio.com/videos/ham-radio-remote-operation-via-smartlink/>

<https://helpdesk.flexradio.com/hc/en-us/articles/202118558-How-to-Connect-your-FLEX-6000-to-a-LAN>

- Share with your friends! Local-Remote or Distant-Remote!

Questions? Mike has answers. “Ask Mike”



The image shows a YouTube video player interface. The main video frame displays a title card with the following text: "Remote HF Setup - FRS style" in large, bold, black font, followed by "What do I need to do?" in a smaller, italicized black font. The FlexRadio logo, featuring a stylized wave and the text "FlexRadio Find Everywhere", is positioned in the upper right corner of the video frame. The background of the video frame shows several tall, lattice-structured radio towers against a light sky. In the bottom left corner of the video frame, the text "Michael Walker VA3MW", "FlexRadio Systems", and "March 2021" is visible. In the bottom right corner, a URL is provided: <https://www.youtube.com/watch?v=C7d5C7nc5R0>. On the left side of the video player, there is a small inset window showing a man with glasses and a dark shirt, identified as Mike, speaking into a microphone. Below this inset, the text "Play (k)" is visible.

“Ask Mike”

Youtube play lists examples

- [New Users training](#)
- [How to update your radio software](#)
- [Working with Digital Modes](#)
- [Microphones and Headsets](#)
- [Remote Operating](#)

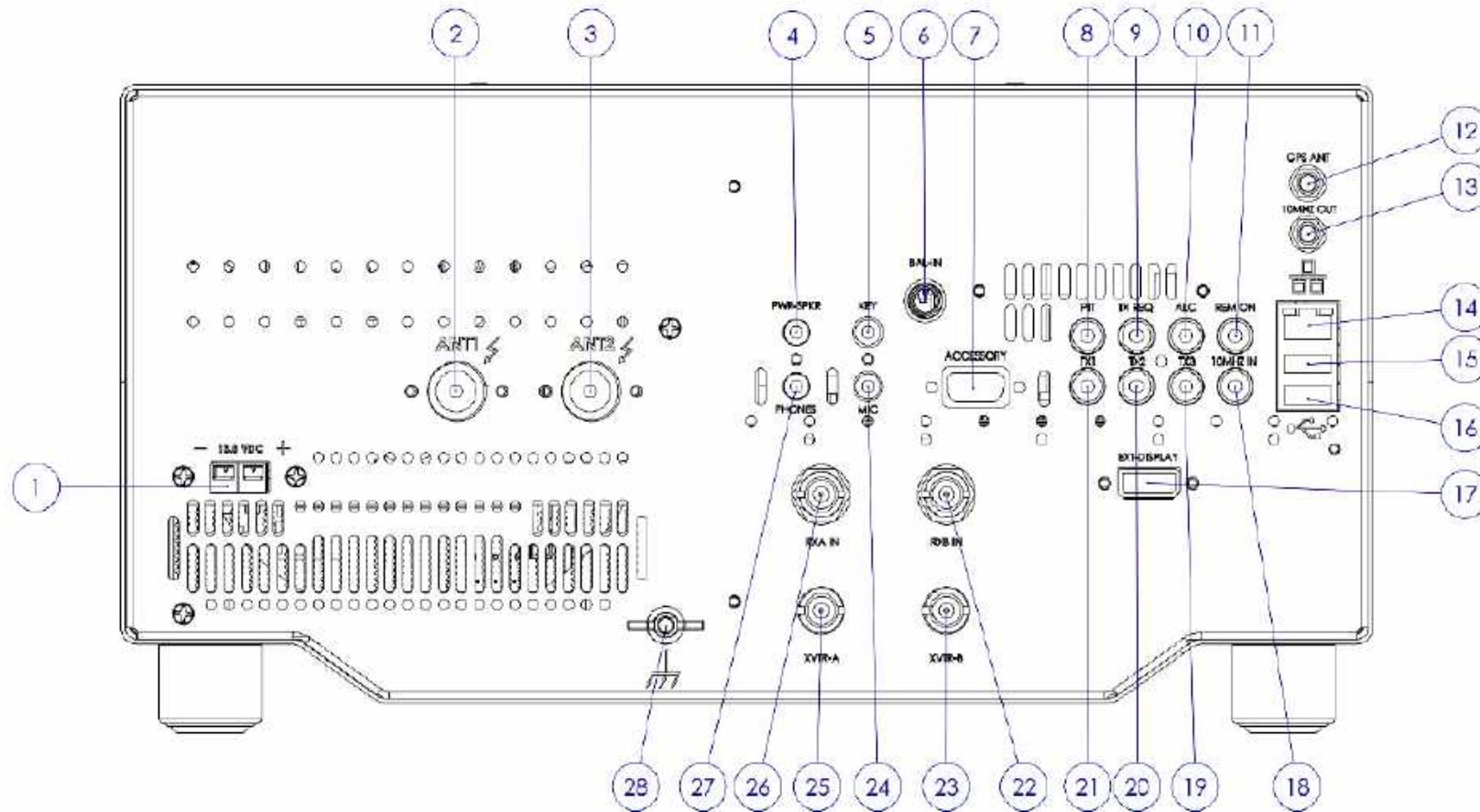
And generally <https://www.flexradio.com/videos/>

Thank You!



Backup slides

Flex Physical Interfaces



Flex Radio systems (<https://www.flexradio.com/>)

Transverters?

- Yes! Can do that



TX1, 2 or 3 to PTT



XVTR to IF In (and out) at 28Mhz



Flex CAT and DAX and USB I/O configurations

The main interface shows TX/RX controls with level meters, a frequency display of 28.074.000, and various filter and gain settings. The interface includes tabs for TX, P/CW, PHNE, RX, and EQ. The TX section shows a level of -40dB and a compression of -25dB. The RX section shows a level of -10dB and a filter of 6.0K. The interface also includes a 'DAX' button and a 'MON' button.

The 'Add Port' dialog box for CAT configuration shows the following settings:

- Name: [Empty]
- Port Protocol: CAT
- Port Type: Serial
- Serial Port: FlexVSP Existing
- Client COM: COM11
- VFO A Slice: A
- Auto Switch TX Slice: Enabled
- Split Mode: N1PR (normal)

The 'Add Port' dialog box for OTSP configuration shows the following settings:

- Name: [Empty]
- Port Protocol: OTSP
- Port Type: Serial
- Serial Port: FlexVSP Existing
- Client COM: COM11
- Radio 1 Slice: A
- Radio 2 Slice: B

The 'Add Port' dialog box for Winkeyer configuration shows the following settings:

- Name: [Empty]
- Port Protocol: Winkeyer
- Port Type: Serial
- Serial Port: FlexVSP Existing
- Client COM: COM11

The 'Add Port' dialog box for N1MNSpvt configuration shows the following settings:

- Name: [Empty]
- Port Protocol: N1MNSpvt
- Port Type: UDP
- UDP port: 12345
- Lifetime (s): 3600

The SmartSDR DAX v3.3.3... Settings window shows the following settings:

- Station: TPAD2015
- TX Stream: Streaming, TX Gain: [Slider]
- Mic Stream: Off, Mic Record Gain: [Slider]
- RX Streams: Streaming, Slice A RX Gain: [Slider], Slice B RX Gain: [Slider]
- IQ Streams: Sample Rate: 48000, Off

Name	Serial Number	Type	Enabled
Transverters	FTY17721	Bit	Enabled
AT-Auto Ant 2	FT9G21RE	CAT	Enabled
Bandmaster Ant 2	FTY16YK6	BCD	Enabled
AT-Auto Ant 1	FT9FVGRQ	CAT	Enabled
Bandmaster Ant 1	FTY14YV4	BCD	Enabled
SteppiR TX Ant 1	FT042EZW	CAT	Enabled
DSTAR	DA016GYE	DSTAR	Enabled

The SmartSDR CAT v1.3.31 Settings window shows the following settings:

- Serial COM9 Slice A Process: wjtb
- TCP Port 5002 Slice A
- nTermSpots UDP Port 12061
- N3FIP Serial COM8 Slice A Process: (None)
- i58call TCP Port 60000 Slice A
- FootSwitch-FTT-com10 Serial COM10 Slice A

USB: CAT, BIT, BCD, LDPA, & specialty (e.g. DSTAR)
CAT: Radio sends freq info via RS232/DB9 Cat cable

The screenshot displays the SDR software interface with a configuration dialog for a USB CAT cable. The dialog box, titled "USB CAT Cable USB to DB9 CAT cabl...", contains the following fields:

- Name: USB to DB9 CAT cab
- Serial: A10LVV7T
- Cable Type: CAT
- Source: TX Slice
- Auto-report: Enabled
- Advanced: (expanded)

In the background, a log window shows the following entries:

```
03:51:05 (TX): FA00014074000;  
03:51:29 (TX): FA00007074000;
```

Below the log, the "USB Cables" section shows a table of installed cables:

Name	Serial Number	Type	Enabled
USB to DB9 CAT cable	A10LVV7T	CAT	Enabled

At the bottom of the table, there are buttons for "Edit", "Log", and "Remove".