

The BATC logo is a dark blue square with the letters 'BATC' in white. It is positioned in the upper left corner of the slide, partially overlapping a large, stylized blue speech bubble that frames the central text. The background of the slide is a deep blue with abstract, lighter blue curved shapes.

BATC

Portsdown Update

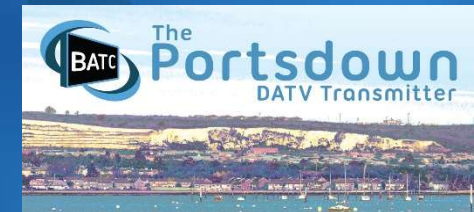
Dave G8GKQ

CAT22
22 October 2022



Portsdown Update

- Project Status
- New Features in the last year
- Future upgrades
- Raspberry Pi Availability
- Next generation Portsdown





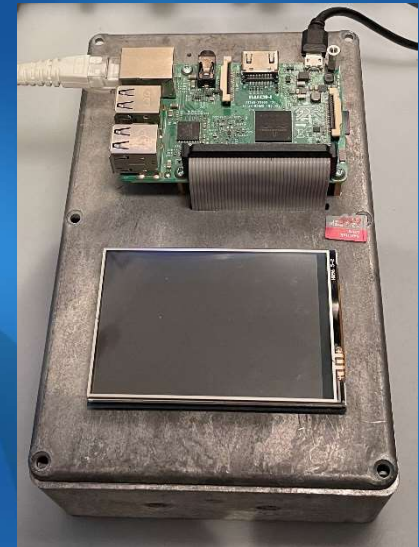
Project Status

- Portsdown 2020 – Continued support
- Portsdown 4 - Continued development
 - Limited in scope by hardware
 - New video sources
 - More Test Equipment
 - Additional Touchscreen features



Portsdown 2020 (3?)

- Not going away!
- Bandviewer for Lime, RTL-SDR and Airspy
- Added DVB-T transmit from Lime
- Portsdown Filter-mod still useful





P4 Hardware Limitations

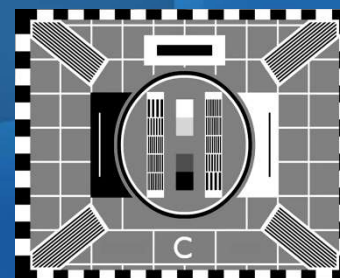
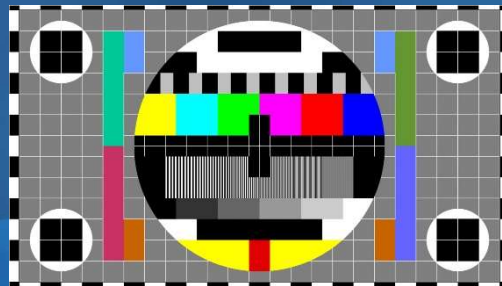
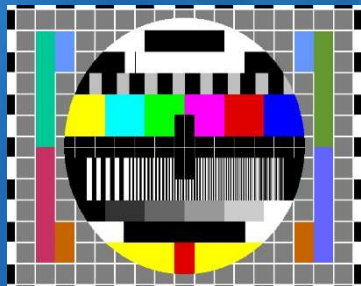
- H264 Encoder (only)
- Design Decisions
 - Display size, no keyboard, no mouse
- Aim is to exploit the existing design
- Langstone is a prime example





P4 Video Sources

- HDMI Capture (Lime)
- Polycom EagleEye Mini USB
- Test Cards





Test Card Selection

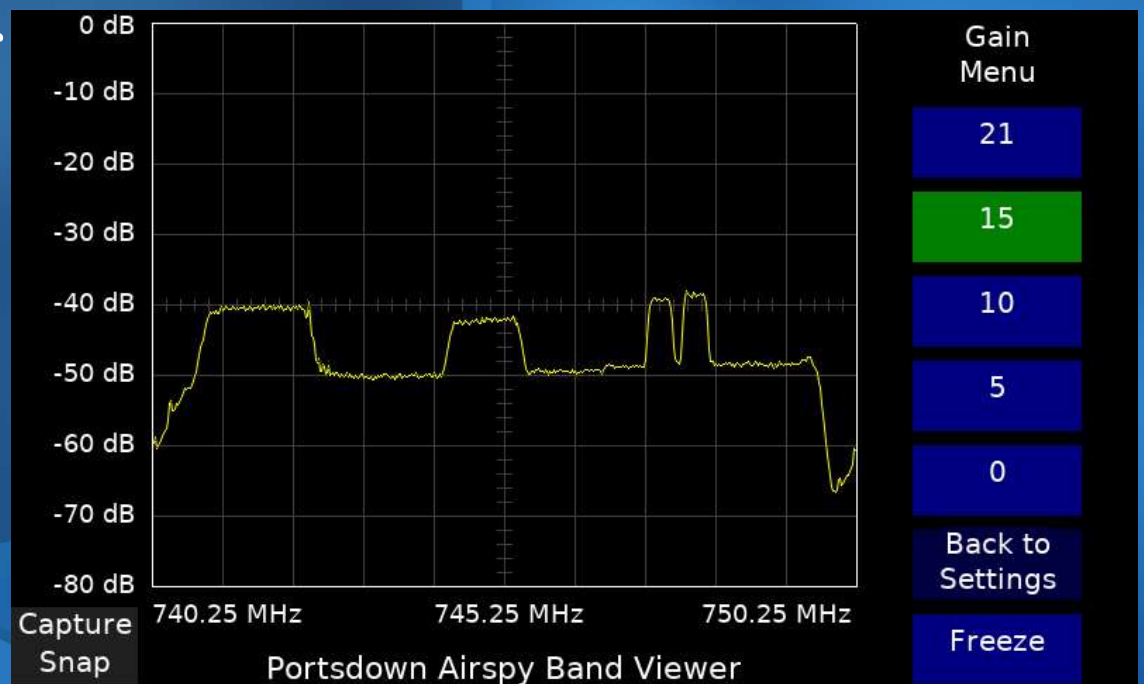
Portsmouth Test Card Selection (47)

Test Card F	Test Card C	PM5544	Colour Bars	Caption On
Grey Scale	Card 5	Card 6	Card 7	
Card 8	Card 9	Card 10	Card 11	Exit



P4 Test Equipment

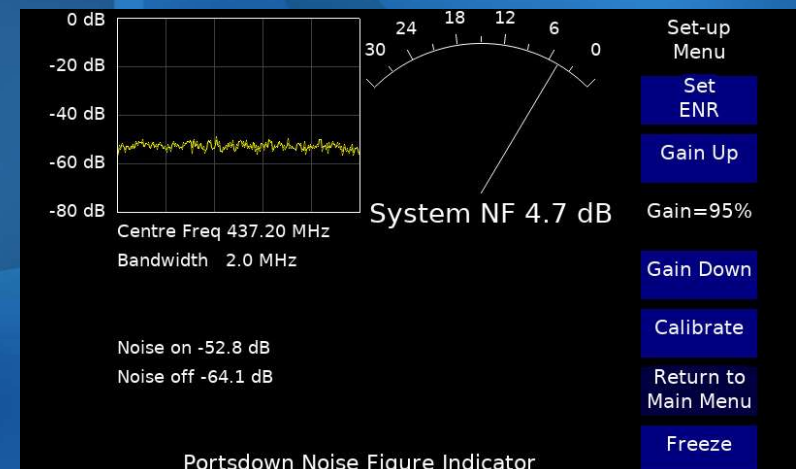
- Bandviewer
 - Lime
 - RTL-SDR
 - Airspy





P4 Test Equipment

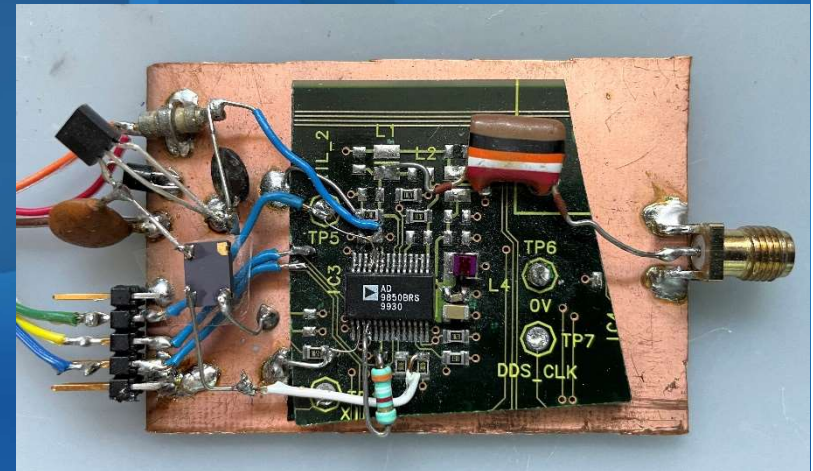
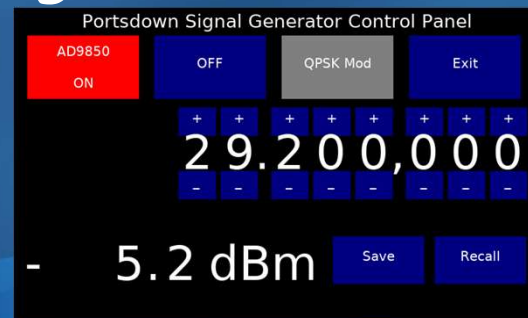
- Bandviewer: Lime, RTL-SDR & Airspy
- Noise Figure Meter (Lime)





P4 Test Equipment

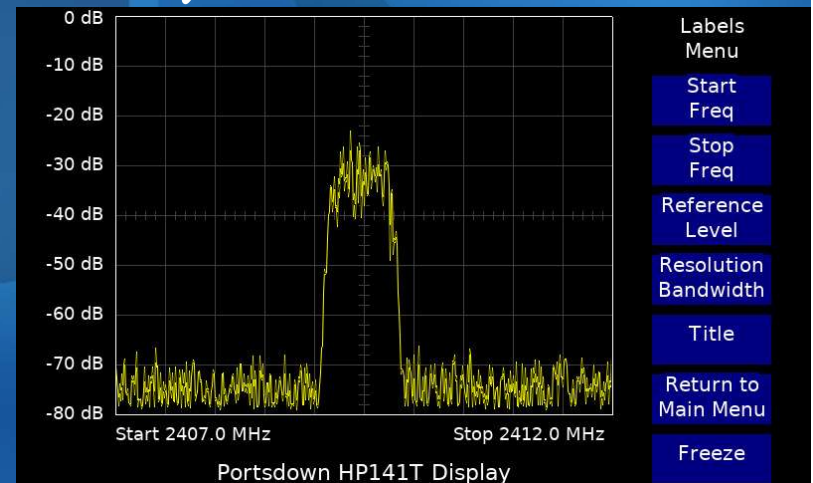
- Bandviewer: Lime, RTL-SDR & Airspy
- Noise Figure Meter (Lime)
- LF Signal Generator





P4 Test Equipment

- Bandviewer: Lime, RTL-SDR & Airspy
- Noise Figure Meter (Lime)
- LF Signal Generator
- XY Display





P4 Test Equipment

- Bandviewer: Lime, RTL-SDR & Airspy
- Noise Figure Meter (Lime)
- LF Signal Generator
- XY Display
- Future:
 - Microwave Aerial Gain Comparison
 - Lidl Multimeter Display and logger



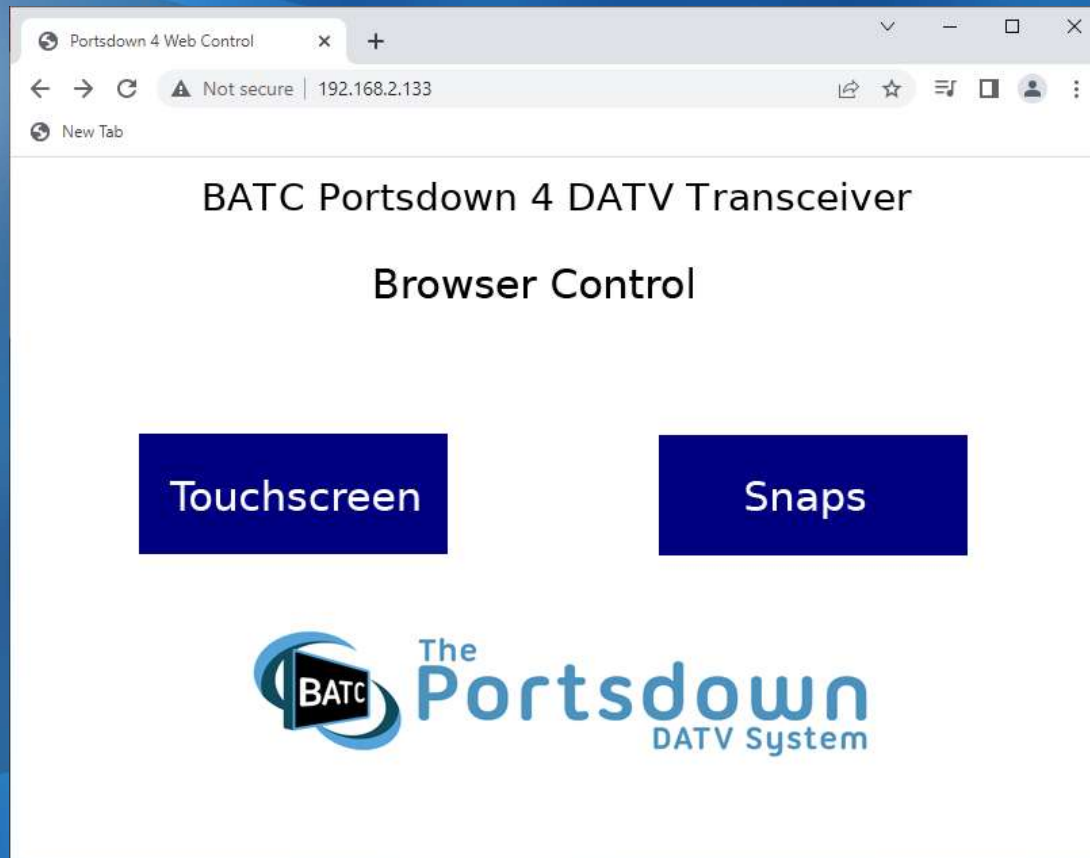


P4 Touchscreen

- DFRobot 5 inch
- Web Access
 - Portsdown TX Control
 - Receiver MER
 - Signal Generator
 - Bandviewer Display soon



Web Control Demo





Web Control Demo

Portsdown Remote Screen x +

Not secure | 192.168.2.133/touchscreen/

BATC Portsdown 4 DATV Transceiver Main Menu

TX		RX	M2	M3
Modulation	Encoder	Output to	Format	Source
DVB-T	H264	Lime USB	4:3	PI Cam
Freq	Bandwidth	Video	Aspect Ratio	Gain
146.5 MHz	333	25	146 MHz	88
EasyCap	Capturing	Audio	Apex	Att Level
Comp Vid	Off	Auto	NONE	-10.00
Preset 1	Preset 2	Preset 3	Preset 4	Store
146.5_333	437_Lime	1255_HD	437-Pluto	Preset

Download screenshot

Web Control not enabled
Enable in Menu 3 System Config
or on the SSH Console Menu



P4 Touchscreen Facilities

- WiFi Set-up
- File Menu
 - USB Device Listing
 - File Explorer with “viewers”
 - File copy and paste



P4 Repeater Transmitter

- Three options:
 - EasyCap input
 - 4:3
 - 16:9
 - Elgato HDMI Input H264 720p
 - (Future) Use Jetson Nano for H265 1080p



Raspberry Pi Availability

- Due to improve in April 2023
- Raspberry Pi Shops
- Use rpilocator.com



rpilocator @rpilocator · Oct 17

Stock Alert (DE): RPi 4 Model B - 1GB RAM is In Stock at Welectron
[#PI4](https://rpilocator.com/?instock)

- Do not buy from eBay!



Raspberry Pi 5?

- Resources diverted during chip shortage
- No substantive rumours yet



P4 Next Generation

- Portsdown 4 uses “Buster”
- Latest OS is “Bullseye”
 - Does not support Portsdown H264 encoding
 - But may support better encoding methods
 - Software needs tidying!

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Questions

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