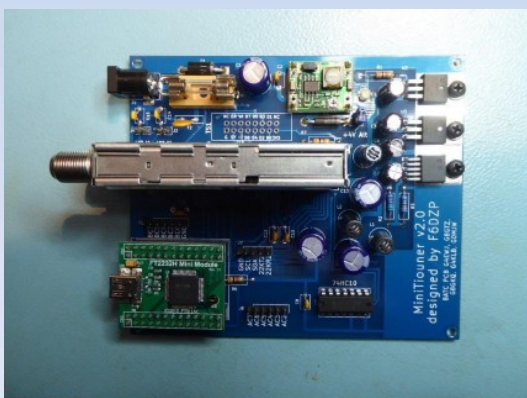




Portsdown Update

Dave G8GKQ



Topics



Review



The Portsdown “Team”



Development



New Capabilities



Next steps










Your to-do List -What do you want?



Q & A

Review – The Last Year

-  From 170 Users to 280 Users
-  Over 100 SD Cards and F-M Boards sold
-  20 Software Updates
-  Support for new Hardware
-  Migration to Stretch OS
-  Expansion to be a TV Amateur's Toolbox
-  Still Plenty to do!



The Portsdown Team



Evariste, F50E0



John O'Loughlin



Colin, G4KLB



John, G7JTT



Charles, G4GUO



Chris, MWOLLK



Phil, MODNY



Noel, G8GTZ



**F4DAV, F1HUS,
F4FGW, F4NAS,
F1DJ0**



Heather, MOHMO





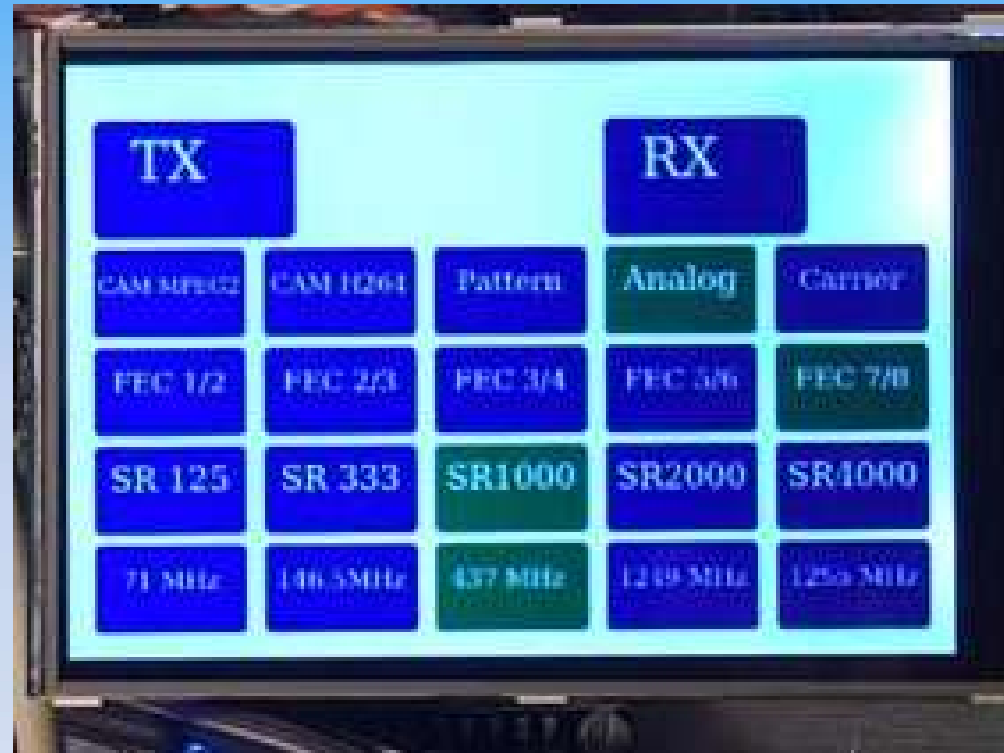
Ray, MODHP



Tim, G4WIM

Software Limitations

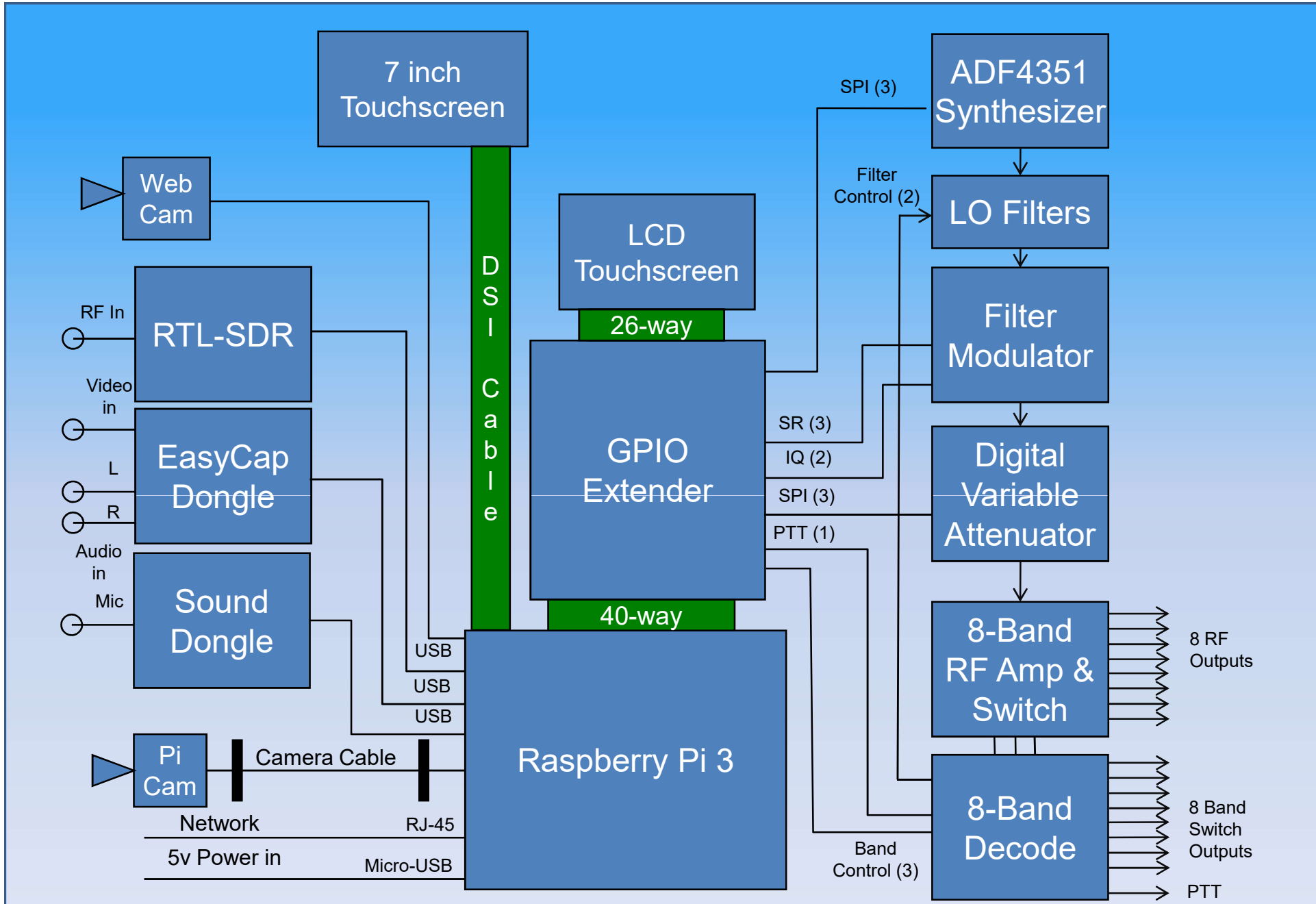
-  Started as fixed frequency single screen
-  Difficult to expand



Portsdown 2018 Software

BATC Portsdown Transmitter Main Menu

TX	RX	M2		
Modulation DVB-S	Encoder MPEG-2	Output to UGLY	Format 4:3	Source Pi Cam
Freq 1255 MHz	Sym Rate 4000	FEC 7/8	Band/Tvtr 23_cm	Att Level -10.00
EasyCap Comp Vid	Caption On	Audio Auto	Atten NONE	
Preset 1 146.5_333	Preset 2 437_1MS	Preset 3 1255_HD	Preset 4 437-Ugly	Store Preset



The Portsdown 2018 ATV Transmitter

Hardware - 7 Inch Screen



New Capabilities (1)



Video Output

Composite Video Output Menu (4)

PTT ON		Exit		
		Band		
		70_cm		
Pi Cam	Contest	TCAnim	TestCard	Snap



LeanDVB Receiver

LeanDVB DATV Receiver Menu (5)

		RX	EXIT		
Modulation	Encoding	SDR	Constel'n	Params	
DVB-S	H264	RTLSDR	ON	ON	
Freq	Sym Rate	FEC	Samp Rate	Gain	
146.5	333	7/8	Auto	Auto	
FastLock		Audio		Set as	
ON		OFF		TX	
Preset_1	Preset_2	Preset_3	Preset_4	Store	
146.5	437	1255	71	Preset	

New Capabilities (2)



RTL-FM Receiver

RTL-FM Audio Receiver Menu (6)

		RX	EXIT	
Freq 144.75	Squelch Level 50	Squelch ON	Save Settings	Freq Corr 0 ppm
AM	NBFM	WBFM	USB	LSB
ATV_Call 144.75	ISS_Down 145.8	UHF_FM 433.75	V40 145.5	V42 145.525
V44 145.55	Simplex 144.525	Radio_4 92.9	SAM_FM 106	Store Preset



Stream Viewer

Stream Viewer Selection Menu (20)

GB3BH	GB3HV	GB3KM	GB3TV	Amend Preset
GB3TZ	GB3VL	GB3ZZ	G4KLB	Exit to Main Menu

New Capabilities (2)



**RTL-FM
Receiver**

RTL-FM Audio Receiver Menu (6)

		RX	EXIT		
Freq 144.75	Squelch Level 50	Squelch ON	Save Settings	Freq Corr 0 ppm	
AM	NBFM	WBFM	USB	LSB	
ATV_Call 144.75	ISS_Down 145.8	UHF_FM 433.75	V40 145.5	V42 145.525	
V44 145.55	Simplex 144.525	Radio_4 92.9	SAM_FM 106	Store Preset	



Stream Viewer

GB3HV

GB3HV

GB3HU

Automatic RB-TV input now working – just transmit on 437MHz 333Ksymbols

New Capabilities (3)



Site List

From G8GKQ/P	IO90LU25EB	Bearing	Range
GB3SCx_Bell_Hill	IO80UU59AA	272 deg	86 km
Butser	IO90MX24EK	023 deg	14 km
Cleeve_Common	IO81XW81	332 deg	135 km
Win_Green	IO80WX66RB	282 deg	74 km
Hannington	IO91JH	349 deg	51 km
Lane_End	IO91JA47AR	332 deg	22 km
Mendips	IO81PH	295 deg	125 km
Lulworth	IO80WP01UD	253 deg	80 km
Walbury	IO91GI45IA	334 deg	62 km
Brn_Clee	IO82QL	330 deg	210 km

Touch Screen to Continue



Station List

From G8GKQ/P	IO90LU25EB	Bearing	Range
G1LPS	IO94EQ	356 deg	427 km
M0DTS/P	IO94MJ	001 deg	393 km
M0DTS/P	IO94DF	354 deg	377 km
G8LES	IO91LC	003 deg	27 km
F9ZG	IN98JW	183 deg	213 km
G8ADM	IO91TO	029 deg	96 km
G8LES	IO91LC	003 deg	27 km
G0MJW	IO91IO	350 deg	84 km
G4CPE	IO91SW	019 deg	127 km
G3KKD	JO02CF	029 deg	176 km

Touch Screen to Continue

New Capabilities (4)






Raspberry Pi 3 B+






Raspbian Stretch





Did you know?

-  **Portsdown signal Generator**
 - ADF4351 35 MHz to 4.2 GHz
-  **FreqShow Spectrum Viewer**
 - Shows 2.4 MHz of spectrum
 - 50 – 1500 MHz
-  **RTL-TCP Server**
 - Remote head for SDR-Sharp

Did you know (2)?

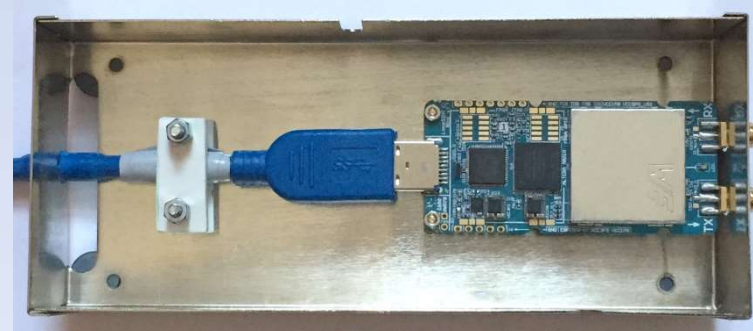
-  Video viewer (2 fps)
-  Video frame capture
-  View Captured frames

-  Video streamer to BATC Stream






-  HD Transmissions from C920 Webcam

Where's it going?

-  Smooth Video display on 7 inch screen
-  ADF5355 Signal Generator to 13.6 GHz
-  eBay Log power detector display
-  X-Y display
-  Lime SDR support



Where's it going (2)?

-  H265 at low bitrate?
-  Viterbi error correction for LeanDVB?
-  Select different stream outputs from touchscreen
-  DVB-S2
-  H264 with audio

Today and Tomorrow



Full Portsdown test and repair kit



Some surface mount construction facilities



Full BATC Shop stock



Portsdown: https://wiki.batc.tv/The_Portsdown_Transmitter