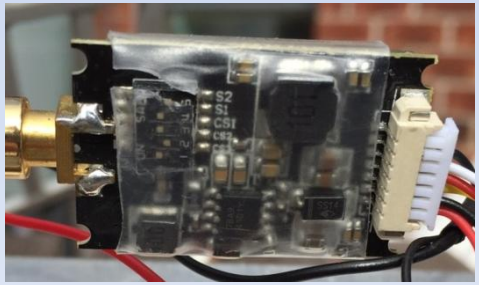
5.6 GHz ATV

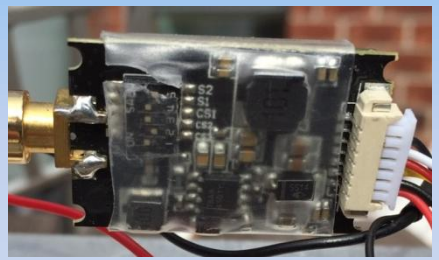
A lot of fun for less than £100!

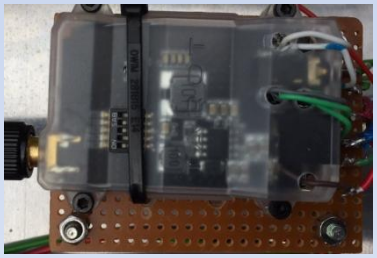
Noel G8GTZ

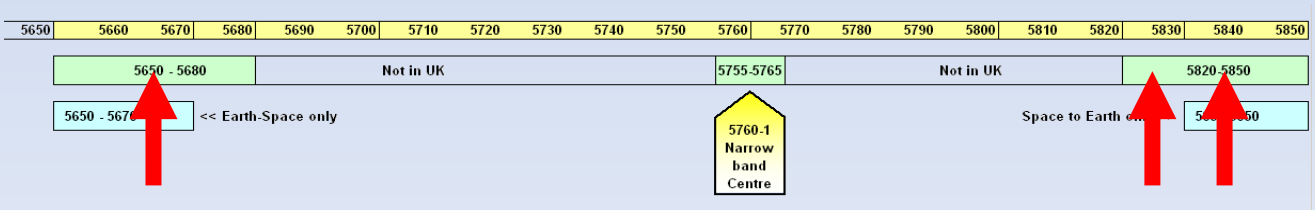


Low cost 5.6 GHz ATV

- Using tx and Rx made for drone FPV use
  - Tx = 600 Milliwatts out
  - Rx = -85 dBm
  - 27MHz wide
- Cover UK amateur Band
  - 5665 MHz
- They just work out of the box!





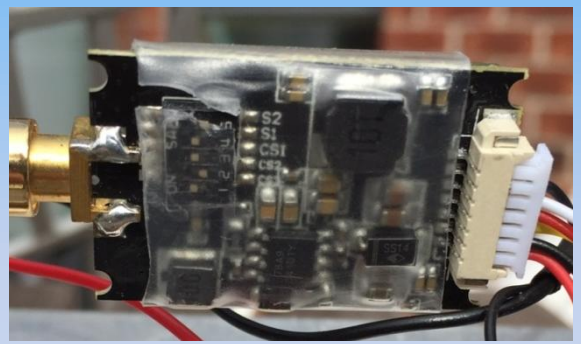


Why

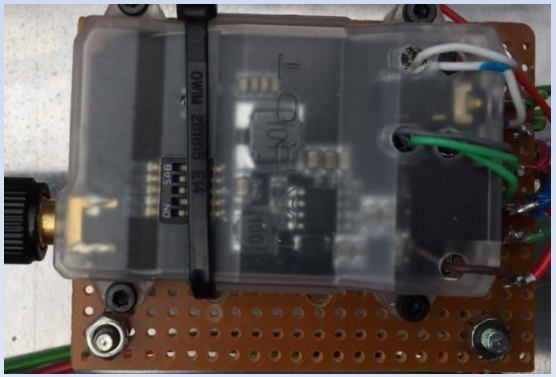
- Cheap kit available for drone FPV use
- New technical challenge
- Easily accessible
- Very simple

The toys

- Transmitters typically 600mw output
- Video + Audio in, RF out
- Preset Channels



- Receivers have preset channels
  - You need 5665MHz
- RF in, video and audio out
- All runs from 12v



The system

- Wire up power, video and audio
  - Be aware of the blue screen
- Connect antennae
  - 5.8 Ghz wi fi or Sky dish (available from tl
    tip!)
- Single or 2 ant working
  - SMA relay is the most expensive bit!

5.6Ghz on the air

- Clear line of site paths
  - 60 - 100Km is easy
  - Best DX so far = 180 Km!
- Horizontal Polarity
  - Peak on sound subcarrier quieting
- Also used for WB voice
  - PW Siren project

The great Dx chase!

- August 2017 – G8GKQ and G8GTZ
  - 138 Kms from Dunkery to Cleeve
- May 2018 – GW3NWR and MOKPW /GOHIK
  - 153 Kms from N Wales to Kirkstone
- May 2018 – G4NJJ and G8AGN/GOR
  - 158Kms Norfolk to North Yorkshire
- July 2018 – GIOGDP and GOHIK / MOKPW
  - 180Kms NI to Cumbria
- All for less than £100!

Yorks > Norfolk 158Kms

Taking the.....

GI to Cumbria – 180Kms

Where next???

- Need Line of sight paths
  - Peak to peak
  - Sea paths with enhancements
- Red lines have been worked
- Black lines await
- Orange line 10Ghz in 1970s!
- Where will you go?