

# MOPWLRadio

## Hot Spots



# MMDVM

We all know the benefits repeaters offer to users of hand held radios well DMR has even greater benefits.

Being digital makes it possible to interface the radio and digital repeaters to the internet meaning it's possible to connect with people all around the world by accessing a repeater such as GB7PY.

But what if like me there is no repeater within 100 miles well out of range for my MD380 70 cms hand held.

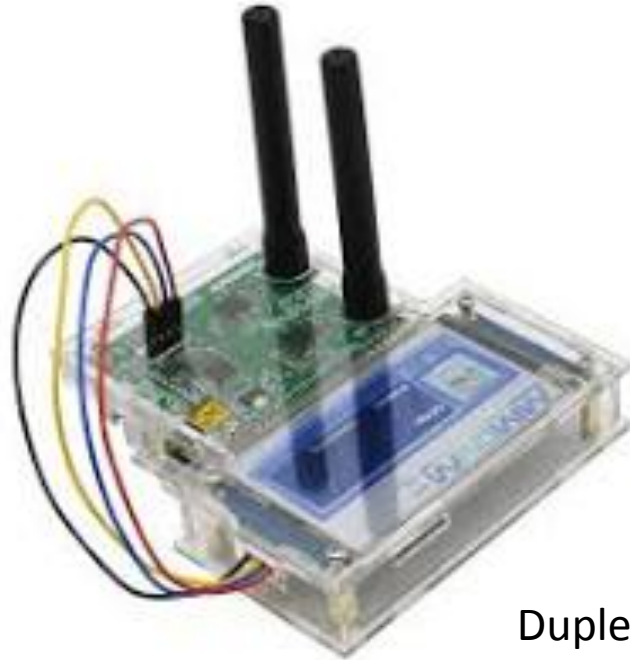
The answer is the MMDVM or "Multi Media Digital Voice Modem" also referred to as a Hot Spot.

There are many different types on the market but all do essentially the same thing, interface your digital radio to the internet much like a Wi-Fi access point (AP).

# Hot Spot



Simplex



Duplex



Jumbo Spot (Zum Spot) HS\_Hat  
Is a basic simplex hot spot but don't  
be fooled into thinking it's not very  
good. It has a surprising amount of  
functionality.

# Jumbo Spot - HS\_Hat

- These boards are designed to sit on top of a single board computer such as a Raspberry Pi or Arduino. The Simplex Jumbo Spot is best used with a Rpi Zero W which has the same form factor.
- It uses an Analog Devices ADF 7201 RF Transceiver to communicate with your radio.
- An ARM micro processor controls the operation of the Transceiver.
- The ADF 7201 will operate from 80MHz to 650MHz.
- So can be used with both 2m and 70cms radios.
- It outputs around 16 to 19 mw so is only designed for local area.
- But can give coverage of 1 – 2Km possibly more with a better aerial.

# Pi-Star

- To make the Hot Spot do something requires some software.
- A popular program is Pi-Star written by Andy Taylor – MW0MWZ.
- The current version is 4.1.2 and can be downloaded from [www.pistar.uk](http://www.pistar.uk).
- There are many sites on the web giving useful help.
- It will handle Simplex and Duplex Spots.
- It's also totally free.

# Should I use a Simplex or Duplex Spot

- The Simplex board is relatively straight forward to setup if you only want to use a single network either Brandmeister or Phoenix although BM is possibly a little more involved.
- Hot spots normally use TS2 but networks can be on both TS1 or TS2.
- You can talk on both Time Slots if using a Simplex Spot as Pi-Star translates your call so that it is routed to the correct TS expected by the server.
- If you want your radio to use both Brandmeister & Phoenix it is easier to do on a Duplex board than on a Simplex board.





*"That's all Folks!"*

Any Questions