mmdvmcal

mmdvmcal procedure:

To use pistar-mmdvmcal to calculate TXoffset
A. Preliminaries:- Set DMR rig to desired hotspot frequency, CC1 Slot1 TG9. Call it Fd (in Hz) In Pistar set TXoffset and RXoffset to zero, otherwise they'll screw up the calculation.

B. connect to your pi-star setup with ssh.

C. Type:- sudo pistar-mmdvmcal"

D. Tap E key & enter TX frequency of your hotspot in Hz

F. Tap key. Hotspot generates a dmr tone.

G. Tap Hotspot transmits tone. You should hear tone on rig.

H. Repeat presses on f key until tone disappears. Note this frequency as f.

I. Repeat presses on F key until tone reappears, keep going until it disappears again. Note this frequency as F.

J. Q to quit.

The calculation:
You have 3 frequencies, Fd, f and F to play with. f is the lower edge of the hotspot transmission and F is the upper edge of the hotspot transmission. Assuming the transmission is symmetrical around its peak value, the average of f & F gives the peak frequency of the hotspot transmission ie where it is transmitting.

So the hotspot is TXing at freq. {(F+f)/2} Hz
TXoffset is the difference between rig and hotspot TX frequencies.

TXoffset = Fd – {(F+f)/2}

TXOffset & RXoffset don’t have to be the same, but for starters set both to the calculated value. If ber isn’t good, vary RXoffset only until it is.