

Use MMDVMCAL to test the mmdvm hotspot's RF functions

How to test the mmdvm hotspot's RF function

visit http://pi-star/admin/expert/ssh_access.php
login pi-star/raspberry

```
root@gatesvillebm(ro):pi-star# sudo -s  
root@gatesvillebm(ro):pi-star# pistar-mmdvmcal
```

Stopping Pi-Star Services...

Killing any remaining MMDVMHost processes...

MMDVMHost: no process found

MMDVMHost_NoOLED: no process found

MMDVMHost_Adafruit: no process found

Starting Calibration...

Version: 1, description: MMDVM 20190130 (D-Star/DMR/System Fusion/P25/NXDN/POCSAG)

12.0000 MHz GitID #ff7a9fd

The commands are:

H/h Display help

Q/q Quit

W/w Enable/disable modem debug messages

I Toggle transmit inversion

i Toggle receive inversion

O Increase TX DC offset level

o Decrease TX DC offset level

C Increase RX DC offset level

c Decrease RX DC offset level

P/p Toggle PTT inversion

R Increase receive level

r Decrease receive level

T Increase transmit level

t Decrease transmit level

d D-Star Mode

F FM Deviation Mode (Adjust for correct Deviation)

D DMR Deviation Mode (Adjust for 2.75Khz Deviation)

L/l DMR Low Frequency Mode (80 Hz square wave)

A DMR Duplex 1031 Hz Test Pattern (TS2 CC1 ID1 TG9)

M/m DMR Simplex 1031 Hz Test Pattern (CC1 ID1 TG9)

a P25 1011 Hz Test Pattern (NAC293 ID1 TG1)

N NXDN 1031 Hz Test Pattern (RAN1 ID1 TG1)

K/k BER Test Mode (FEC) for D-Star

b BER Test Mode (FEC) for DMR Simplex (CC1)

B BER Test Mode (1031 Hz Test Pattern) for DMR Simplex (CC1 ID1 TG9)

J BER Test Mode (FEC) for YSF

j BER Test Mode (FEC) for P25

n BER Test Mode (FEC) for NXDN

g POCSAG 600Hz Test Pattern

S/s RSSI Mode

V/v Display version of MMDVMCal

<space> Toggle transmit

Levels: inverted: yes, max: 306, min: -274, diff: 580, centre: 16

Levels: inverted: no, max: 313, min: -208, diff: 521, centre: 52

Levels: inverted: yes, max: 257, min: -294, diff: 551, centre: -18

Press space you can hear a 1000 hz test tone at 2.75 khz deviation on the transmit frequency.

Press b you can see your BER

Press q to quit

Pi-Star:4.1.6 / Dashboard:20230924

Pi-Star Digital Voice - Expert Editors

[Dashboard](#) | [Admin](#) | [Update](#) | [Upgrade](#) | [Backup/Restore](#) | [Configuration](#)

Quick Edit: [DStarRepeater](#) | [ircDDBGateway](#) | [TimeServer](#) | [MMDVMHost](#) | [DMR GW](#) | [YSF GW](#) | [P25 GW](#) | [NXDN GW](#) | [DAPNET GW](#)

Full Edit: [DMR GW](#) | [PiStar-Remote](#) | [WiFi](#) | [BM API](#) | [DAPNET API](#) | [System Cron](#) | [RSSI Dat](#) **Tools:** [CSS Tool](#) | [SSH Access](#)

SSH - Pi-Star



The Pi-Star Dashboard can be found at one of the following locations:

<http://gatesvillebm/> <http://gatesvillebm.local/> <http://172.28.2.132/>

Pi-Star's disk is read-only by default, enable read-write with "rpi-rw".
Pi-Star built by Andy Taylor (MW0MWZ), pi-star tools all start "pistar-".

Welcome to Pi-Star: v4.1.6

```
pi-star@gatesvillebm(ro):~$ pistar-mmdvmcalYou need to be root to run this comma  
nd...
```

```
pi-star@gatesvillebm(ro):~$ sudo -s  
root@gatesvillebm(ro):pi-star# pistar-mmdvmcal
```

[Click here for fullscreen SSH client](#)

Pi-Star Digital Voice - Expert Editors

[Dashboard](#) | [Admin](#) | [Update](#) | [Upgrade](#) | [Backup/Restore](#) | [Configuration](#)

Quick Edit: [DStarRepeater](#) | [ircDDBGateway](#) | [TimeServer](#) | [MMDVMHost](#) | [DMR GW](#) | [YSF GW](#) | [P25 GW](#) | [NXDN GW](#) | [DAPNET GW](#)
Full Edit: [DMR GW](#) | [PiStar-Remote](#) | [WiFi](#) | [BM API](#) | [DAPNET API](#) | [System Cron](#) | [RSSI Dat](#) **Tools:** [CSS Tool](#) | [SSH Access](#)

SSH - Pi-Star

```
r      Decrease receive level
T      Increase transmit level
t      Decrease transmit level
d      D-Star Mode
F      FM Deviation Mode (Adjust for correct Deviation)
D      DMR Deviation Mode (Adjust for 2.75Khz Deviation)
L/l    DMR Low Frequency Mode (80 Hz square wave)
A      DMR Duplex 1031 Hz Test Pattern (TS2 CC1 ID1 TG9)
M/m    DMR Simplex 1031 Hz Test Pattern (CC1 ID1 TG9)
a      P25 1011 Hz Test Pattern (NAC293 ID1 TG1)
N      NXDN 1031 Hz Test Pattern (RAN1 ID1 TG1)
K/k    BER Test Mode (FEC) for D-Star
b      BER Test Mode (FEC) for DMR Simplex (CC1)
B      BER Test Mode (1031 Hz Test Pattern) for DMR Simplex (CC1 ID1 TG9)
J      BER Test Mode (FEC) for YSF
j      BER Test Mode (FEC) for P25
n      BER Test Mode (FEC) for NXDN
g      POCSAG 600Hz Test Pattern
S/s    RSSI Mode
V/v    Display version of MMDVMCal
<space> Toggle transmit
Levels: inverted: no, max: 424, min: -342, diff: 766, centre: 41
```

[Click here for fullscreen SSH client](#)