

Hi Everyone,

November 19, 2020

The K8DAA DMR repeater is getting closer to being back on the air with a few changes. The TX radio was replaced with another Motorola GM300. A communications grade switching power supply was added along fuses and a noise filter for the fans.

The replacement TX radio was first bench tested with a surplus i5 CPU fan blowing on the heatsink at power levels and data rates simulating actual use for 6 hour periods while monitoring the output and heatsink temperature. The maximum heatsink temperature reached was 114 F. Any 25 watt FM radio that can survive key down @ a continuous 16 watts out with a only a surplus i5 CPU fan blowing on the heatsink for 6 hour periods and not malfunction is really well built radio.

Here are some pictures during reconstruction.



Dry fit the components. The added power supply occupies the space the Raspberry Pi/MMDDM controller was in.



Rivet the brackets. Yes the two on the right are truss brackets from the lumber yard.





Radios and power supply mounted.



Add the RPi, fans, fan power filter, power cables, control cables and RF cables.



Testing the radio on the bench. The heatsink reached 109.2 F after 4 hours of almost non-stop TX on America Link 31656.

Hope to have this back on the air soon.

Post your projects here on the K8DAA groups.io

Jeff - KD8THX

November 2020