

The Latest

MRF 300 HF/6m Amp

Up

Posted by AG6QV Frank

Tags: [HAM](#) | [HF](#)

I'm living in a forest with a tool hill of trees to the east, north and south. The 30-50W I use when operating FT8 will usually result in a 10 - 20 dB difference in signal received vs sent. So I figured I would increase the output a bit to perhaps 100 or 150W when operating FT8 and 600W for SSB/CW. The MRF 300 transistors are relatively cheap (\$52 per transistor) and boards are available assembled or as a kit for about \$100. I decided to go with a board from [DX World-e](#) in Greece. Today I started on mounting the components into a small box.

The image below shows the top half of the cabinet with the amp, TX relay and connectors for input and antenna 1 and 2 on the back.

Top 2

When the box is turned upside down the heatsink will sit on the top left and there is room at the bottom for the low pass filters and the front plate with switches and SWR instruments.

Front

The back of the cabinet has input and output as well as a place for the power cord to be attached. The bias circuit and relays require 12V and the MRF 300 transistors will operate on 52-57V to get to the full 600W power. I have not yet decided if I want to use an external 12V source or build a step down converter and regulator from the 54V line.

Back

There is still a bit more work until I can power it up and after that there is a similar version for 2m to put into a second enclosure.

[Link to this Post](#)

[Previous 3](#)[Get Next 3](#)

[Get RSS feed](#)

Recent Blog Posts

Blog Archives

[March 2024 {1}](#)

[August 2023 {1}](#)

[May 2023 {1}](#)

[April 2023 {1}](#)

[March 2023 {1}](#)

[January 2023 {2}](#)

Tags

[10 GHz {1}](#)

[2m {2}](#)

[GNU Radio {1}](#)

[HackRF One {1}](#)

[HAM {4}](#)

[HF {1}](#)

[PNW Microwave {1}](#)

[X-Band {1}](#)

Calendar

May 2024					
Su	Mo	Tu	We	Th	Fr
Sa					
			1	2	3
		4			
5	6	7	8	9	10
		11			
12	13	14	15	16	17
		18			
19	20	21	22	23	24
		25			
26	27	28	29	30	31