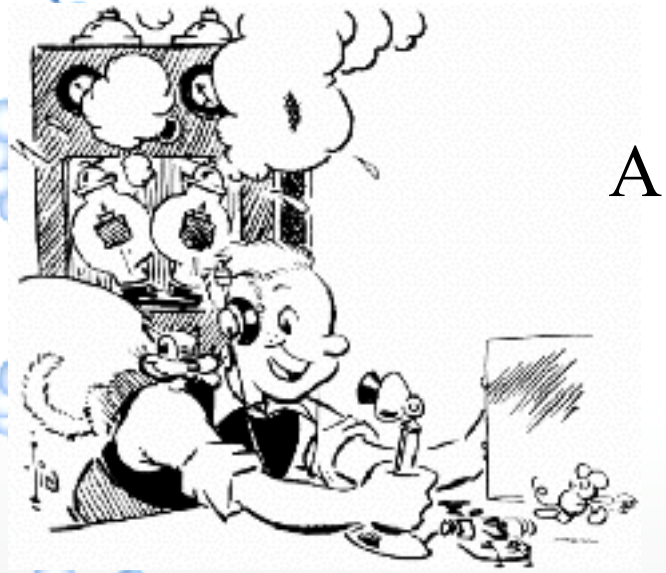
Homebrew



A 40 meter CW transceiver

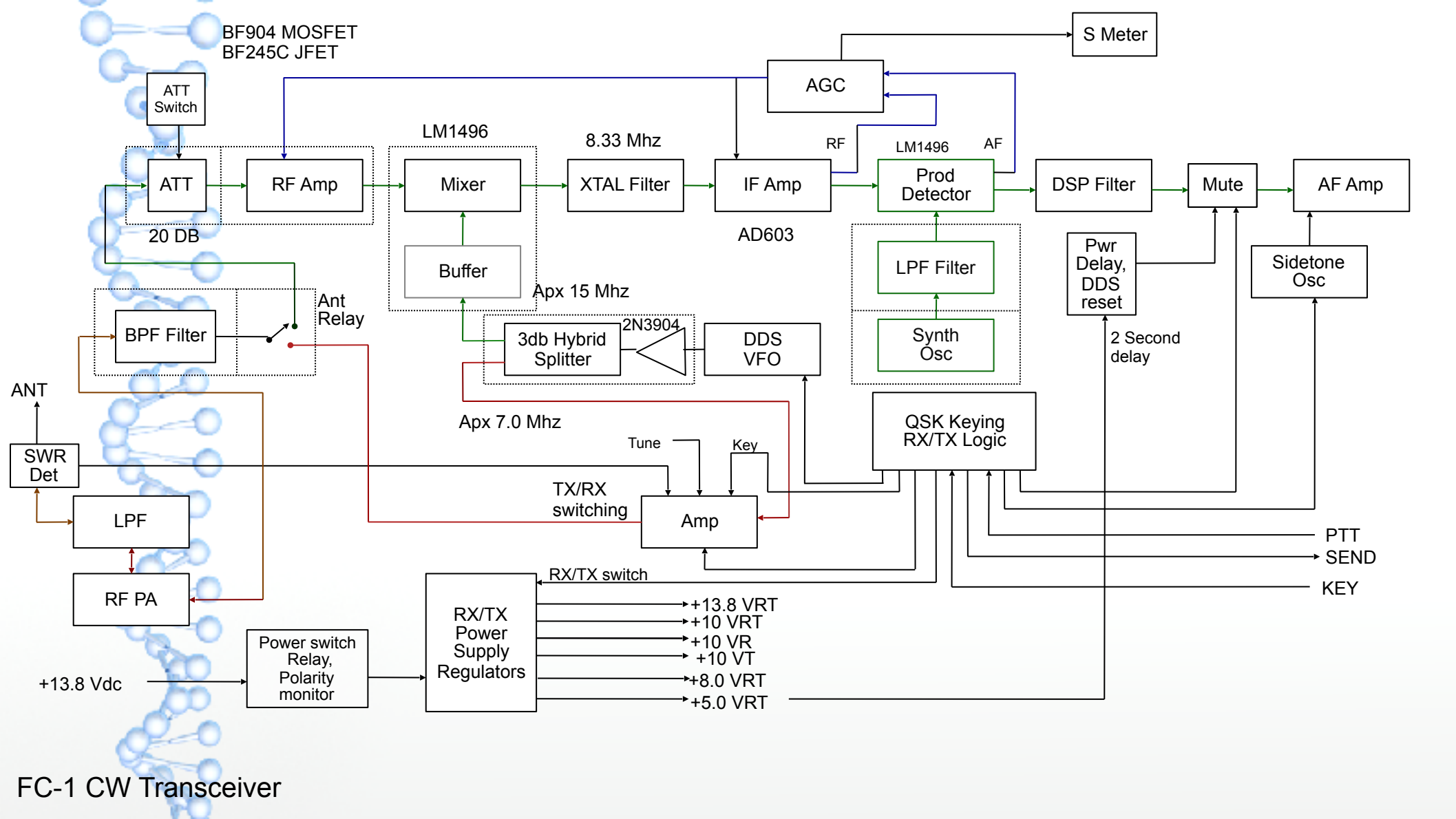
By

Rick Swanton JI1HSV

….Still in progress...

Realistic goals

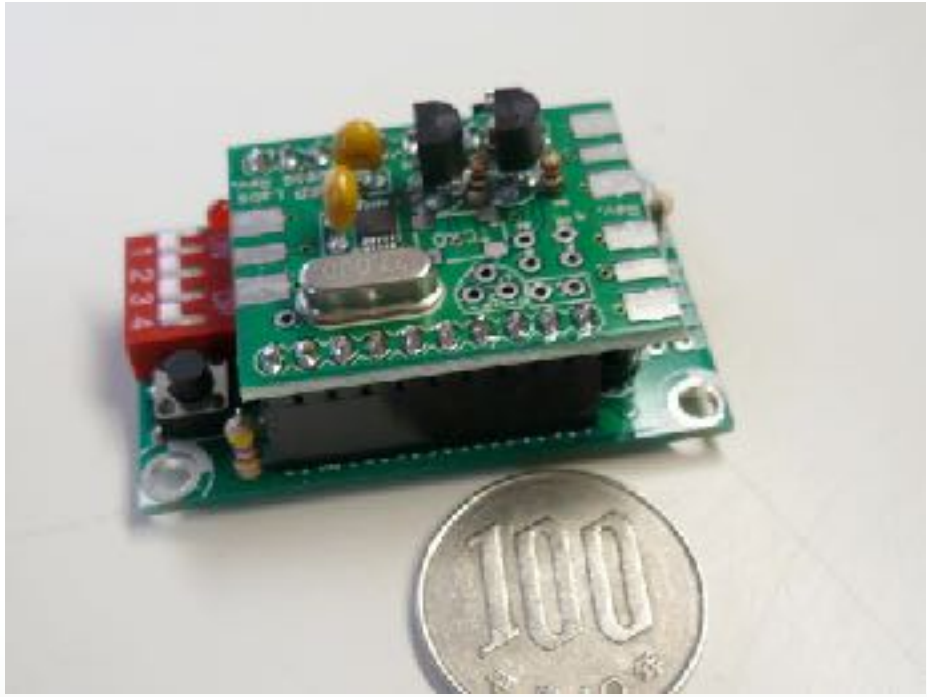
- One band only
- Low Power
- CW only
- Don‘t Duplicate what you have
- DDS VFO control
- Kit RF PA if possible
- Document before and as you go



FC-1 CW Transceiver

N3ZI 1Hz Step DDS

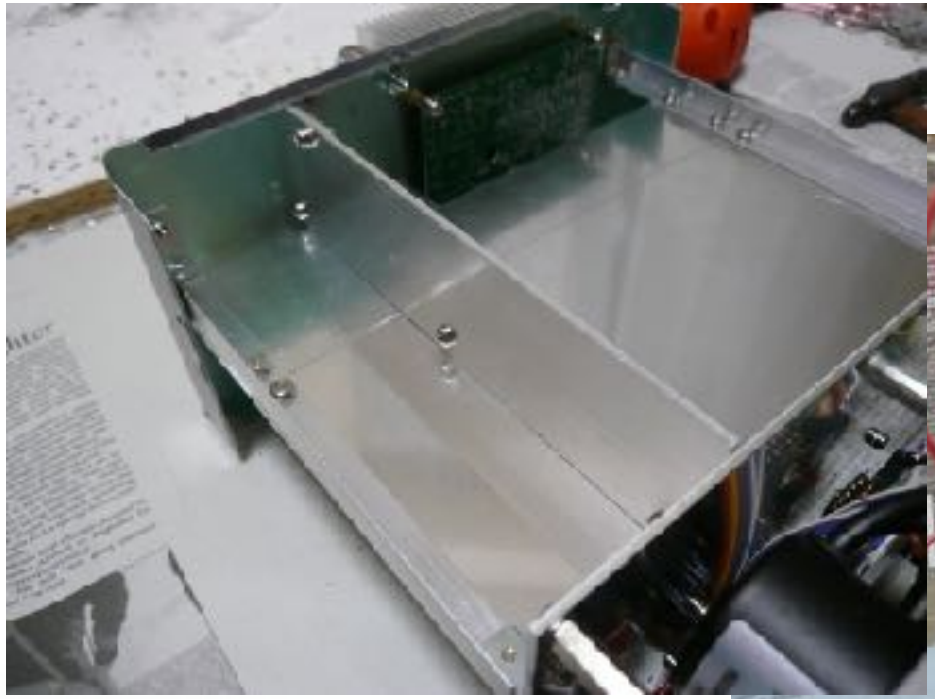
Programmable Crystal (qrp-labs) BFO

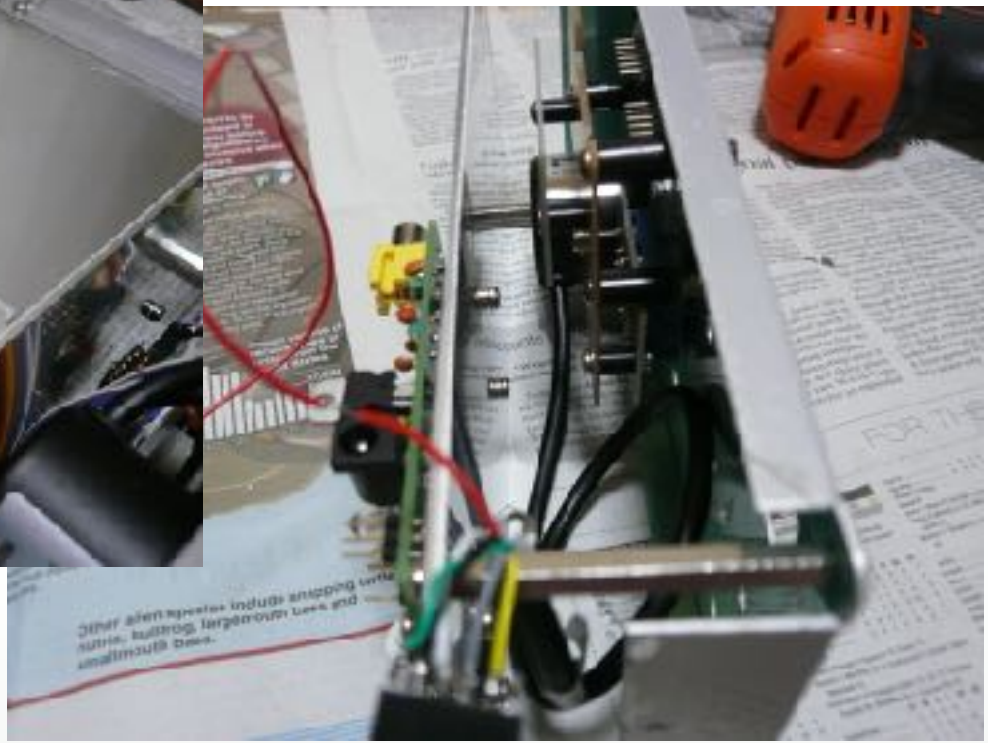


Testing the DDS

Get a GOOD Encoder (optical)

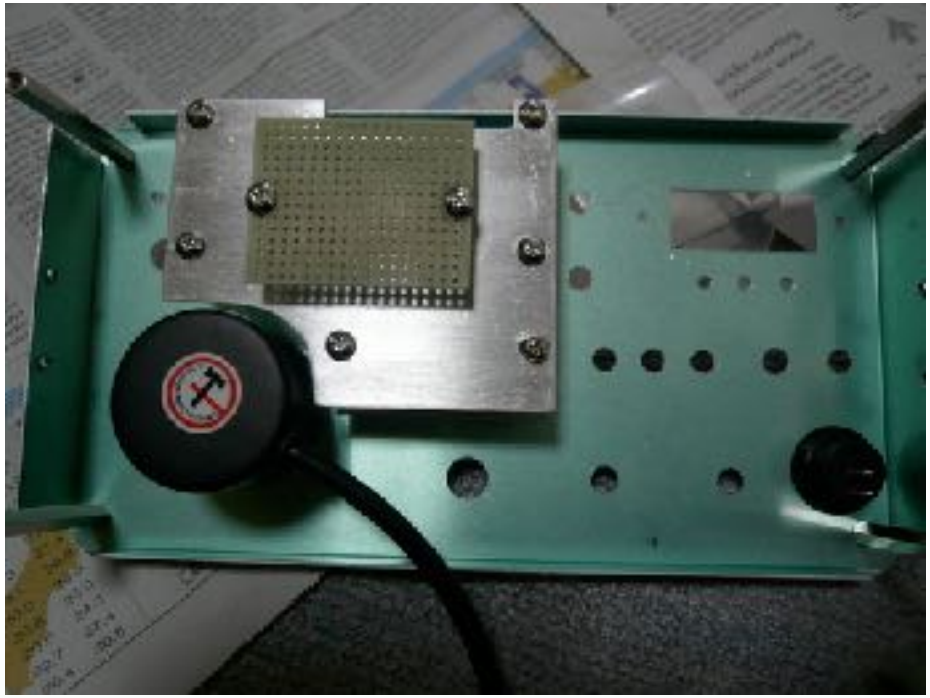
Start the Chassis





Layout Front Panel (ease of use)

Locate and Mount Encoder and LCD

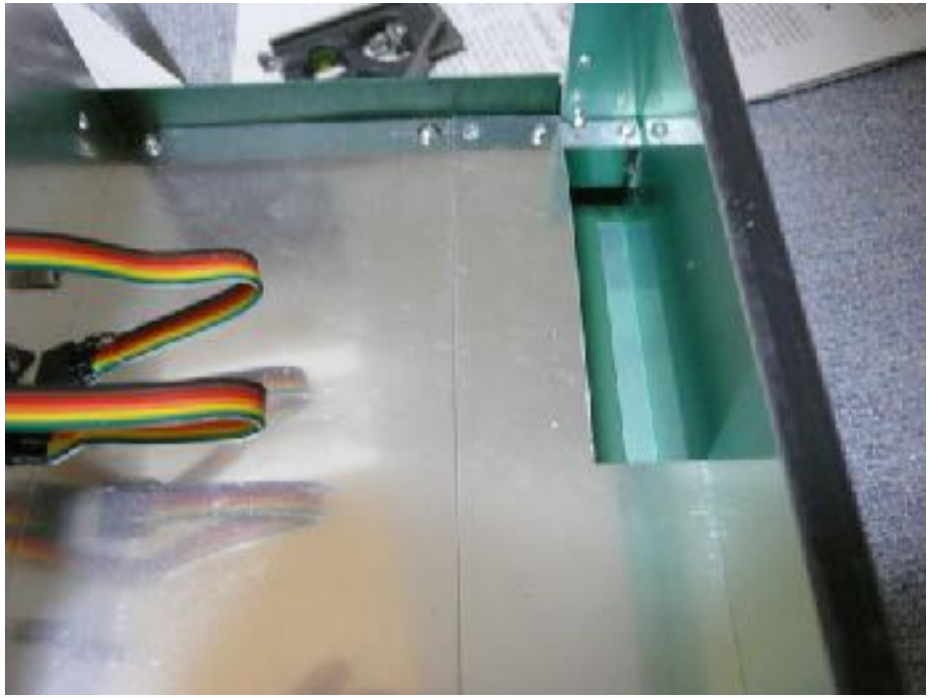


Mount DDS board and AF Amp

Interface board for DDS and switches

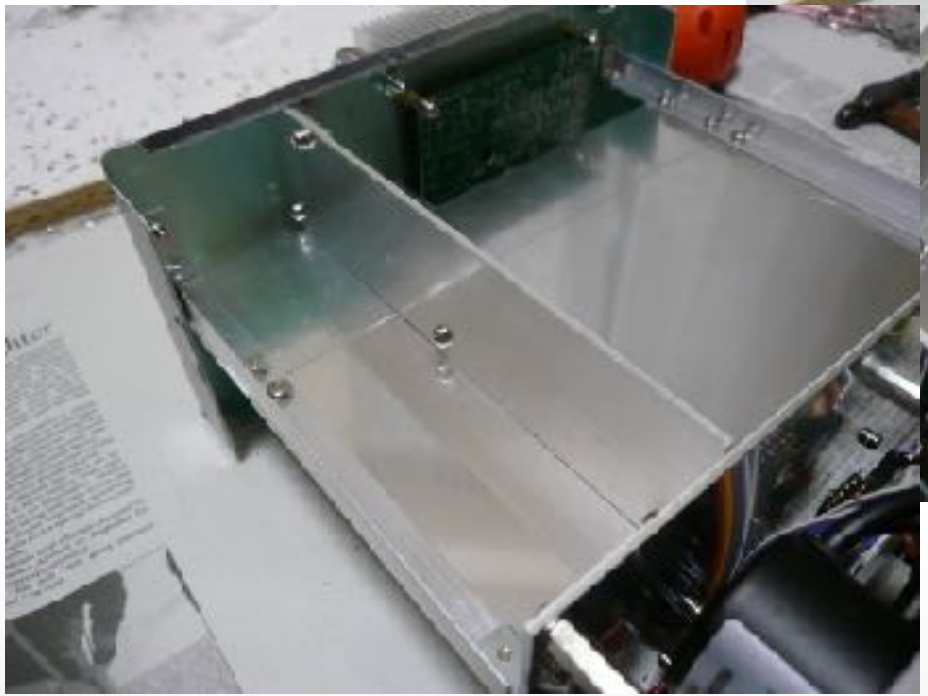
Try the DDS, Hmmm Works!

Now Start Module shielding

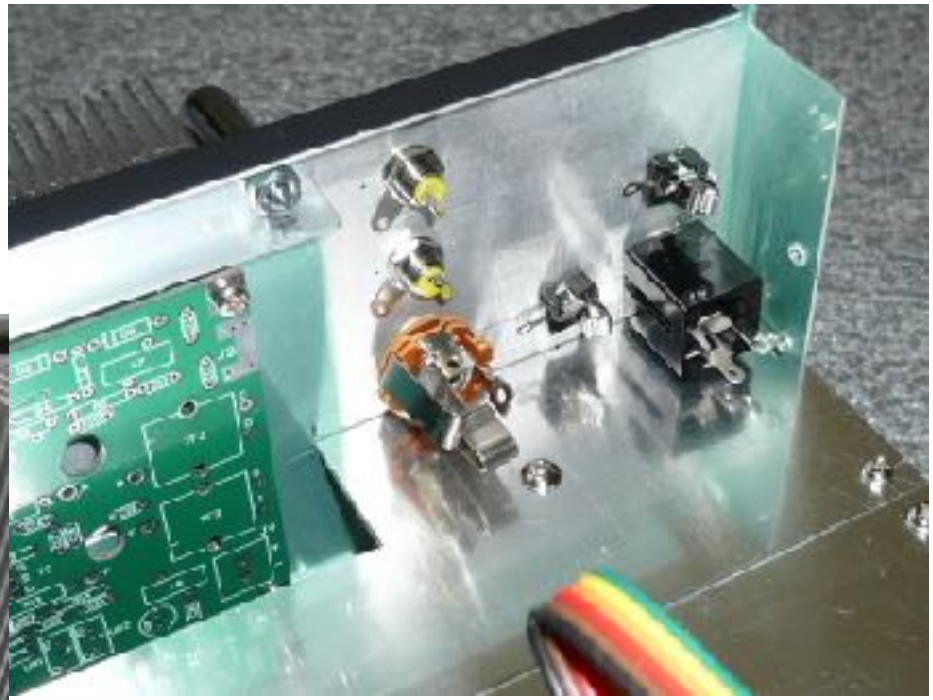


Bare RF PA and Heat Sink

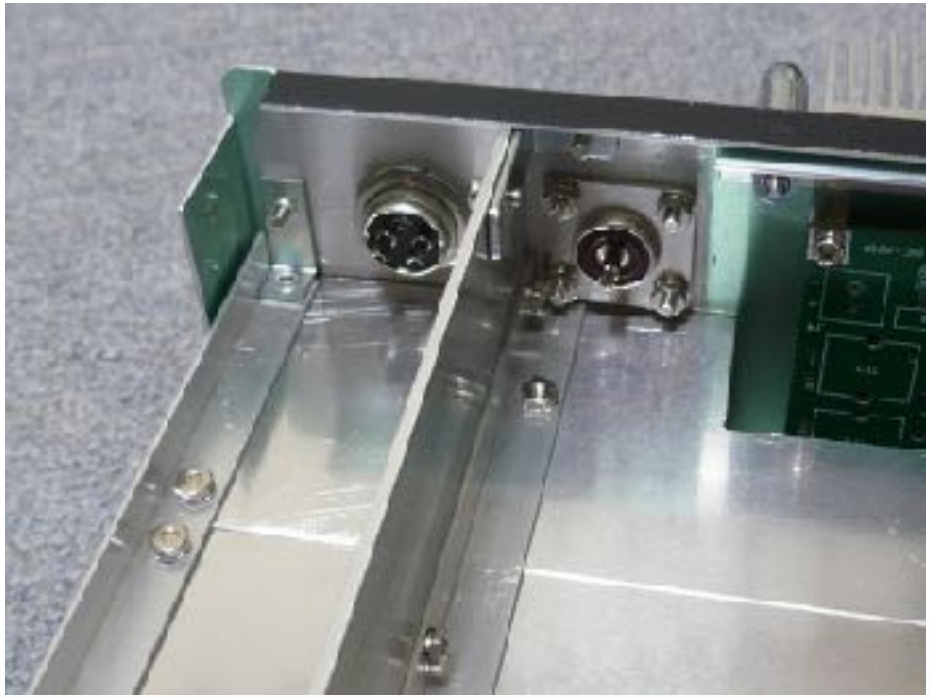
Bottom View PA and Shielding



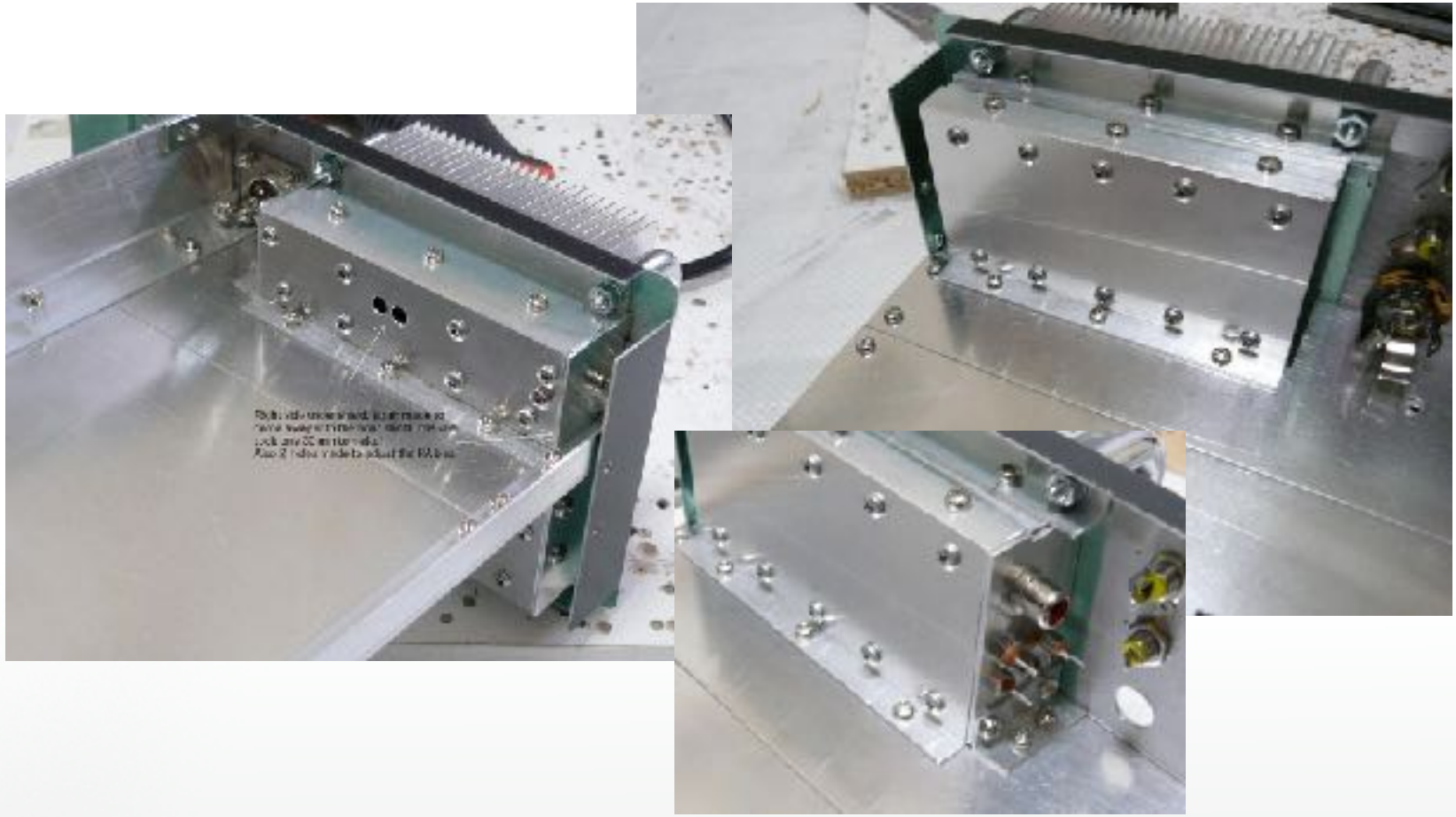
Start Adding Rear Panel Connectors



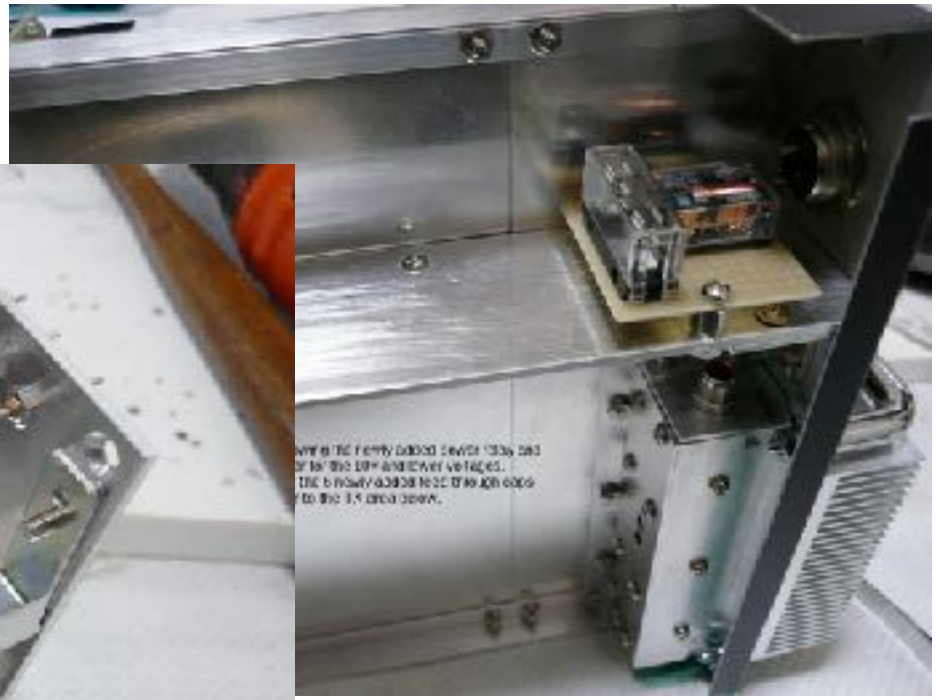
Power and Antenna Connectors



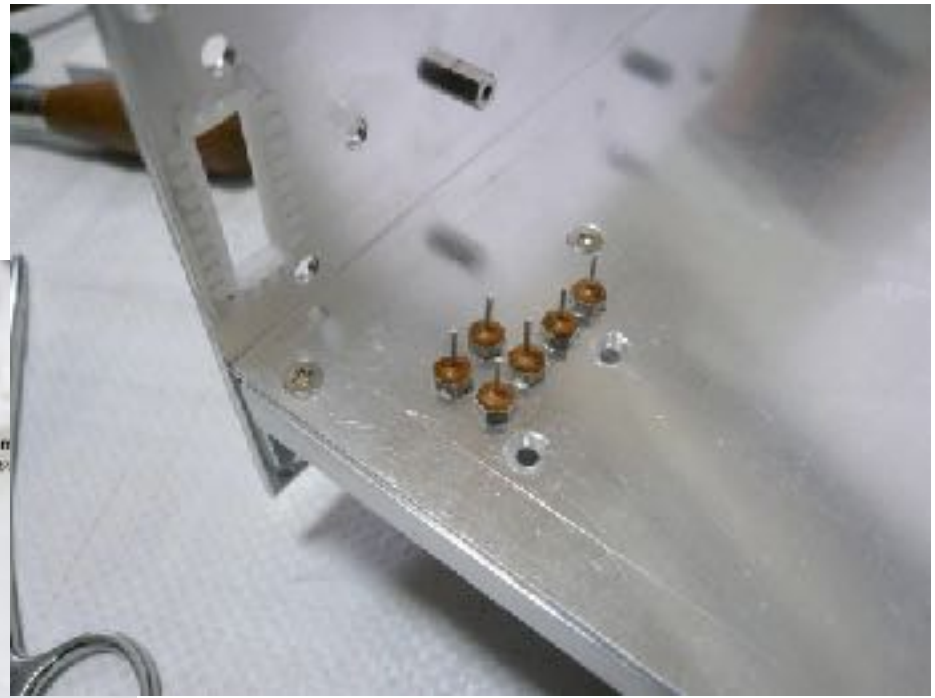
Start RF PA Shielding

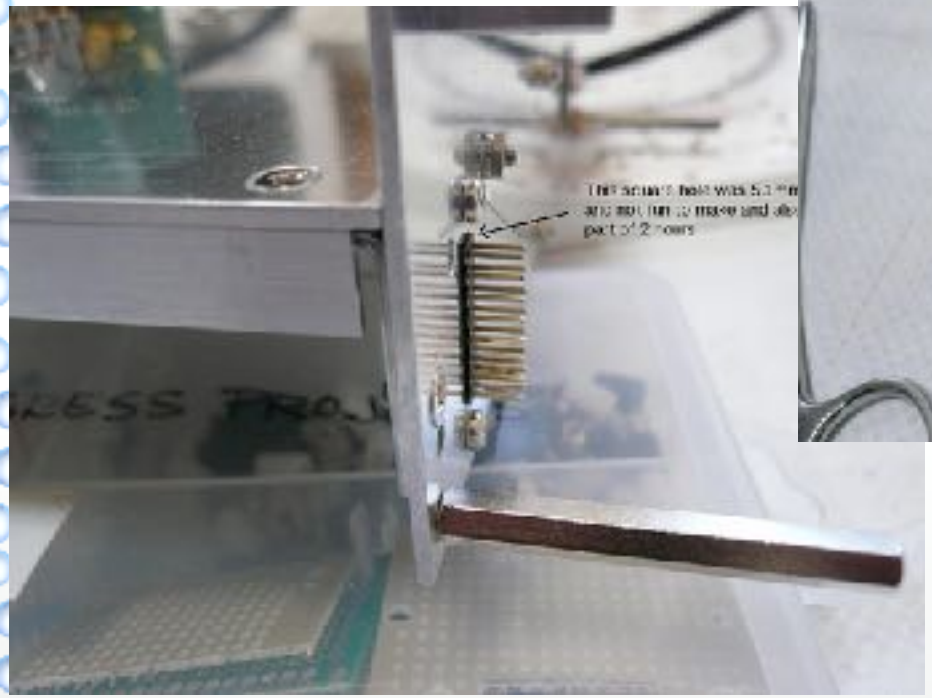


Start Power Control Area

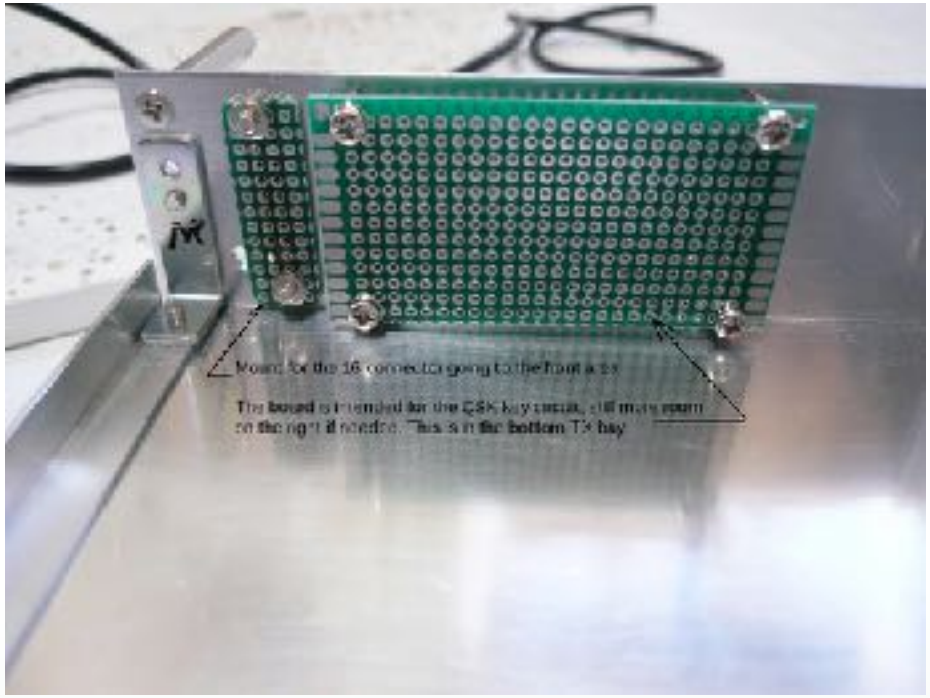


Access for Cable Routing

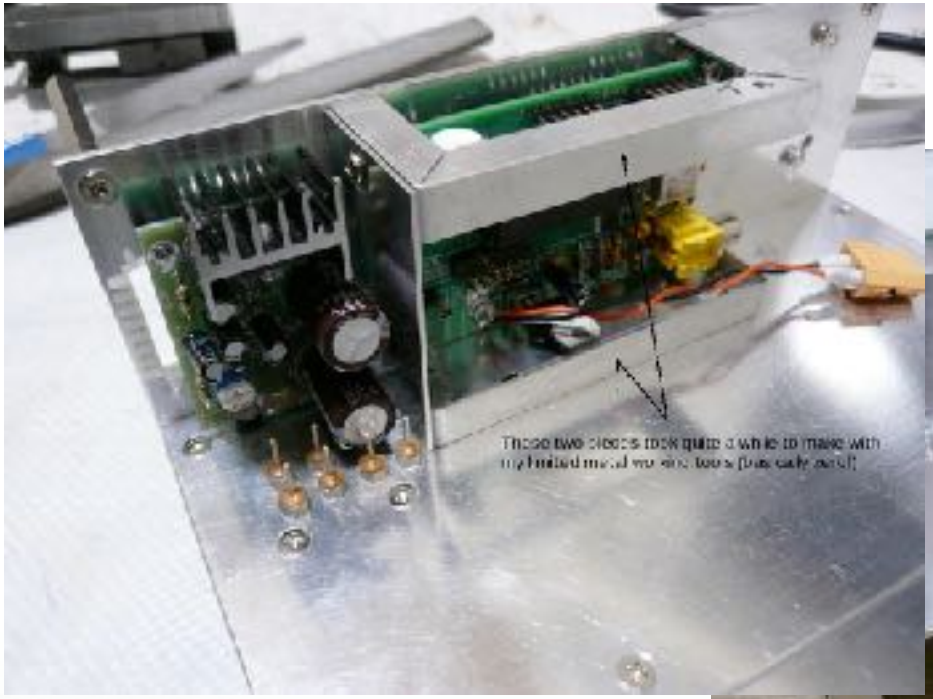


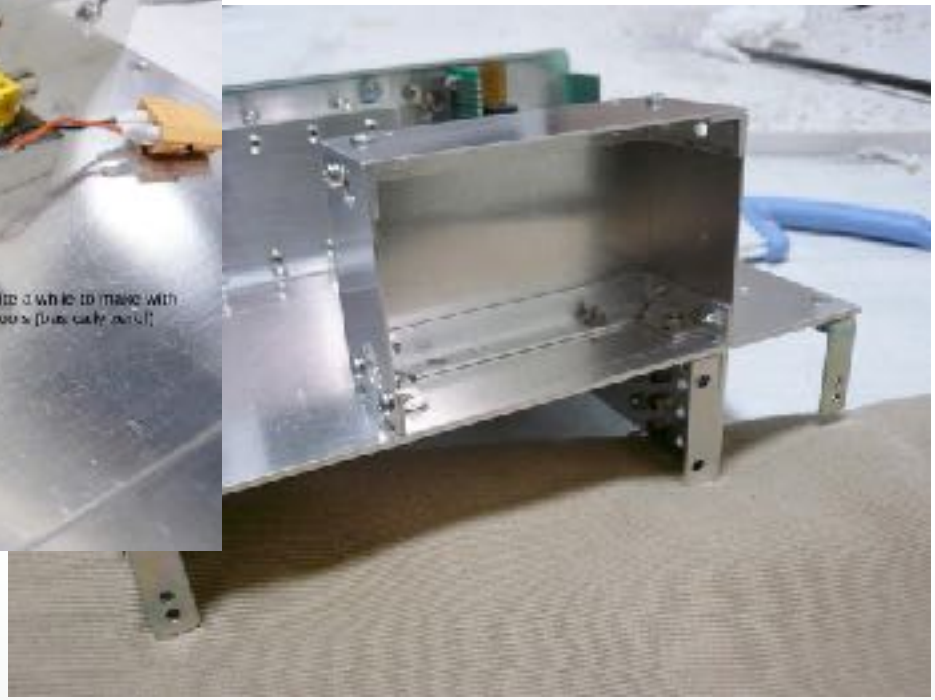


QSK and Mode Control Board

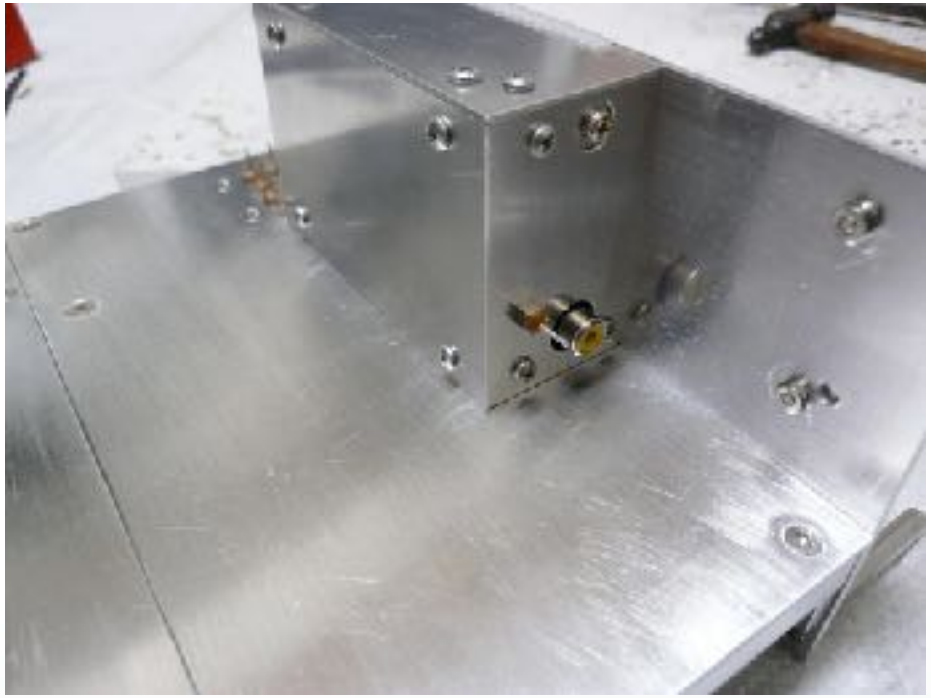


Now the DDS Shielding





DDS Shield Enclosure Complete



Front Panel with all the holes Complete

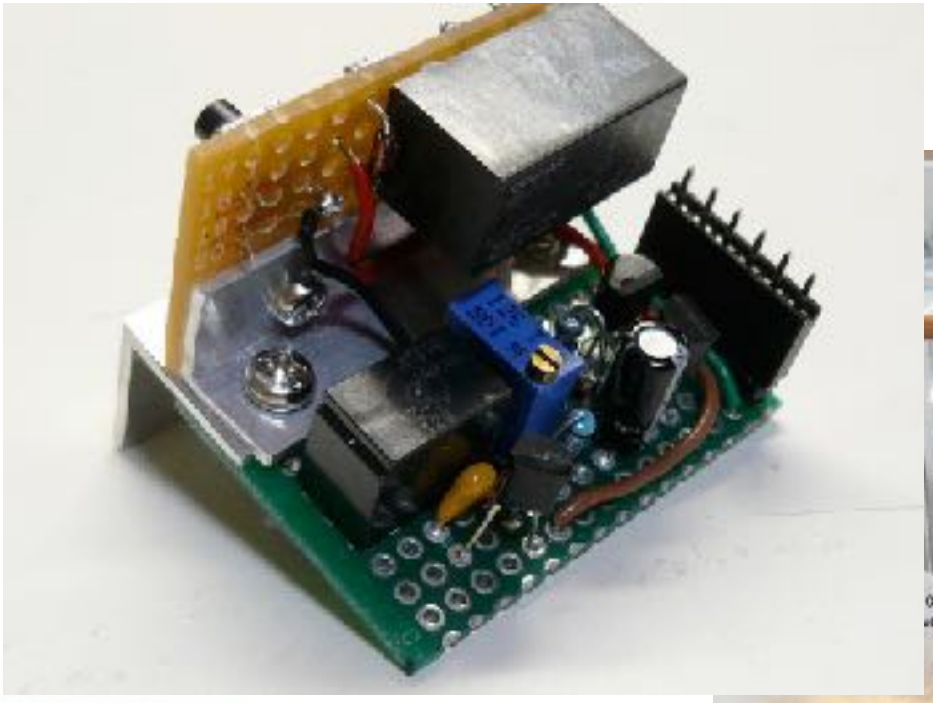
First Test Front Panel Laminate

2nd Front Panel with Controls

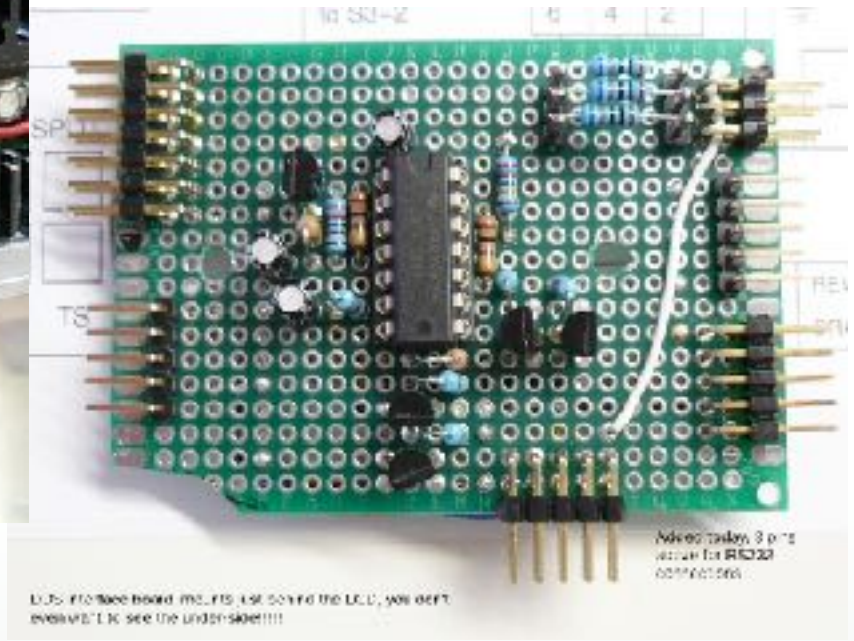
Now The Power Supply

Receive Area with 2nd Chassis

5volt Delay, DDS reset

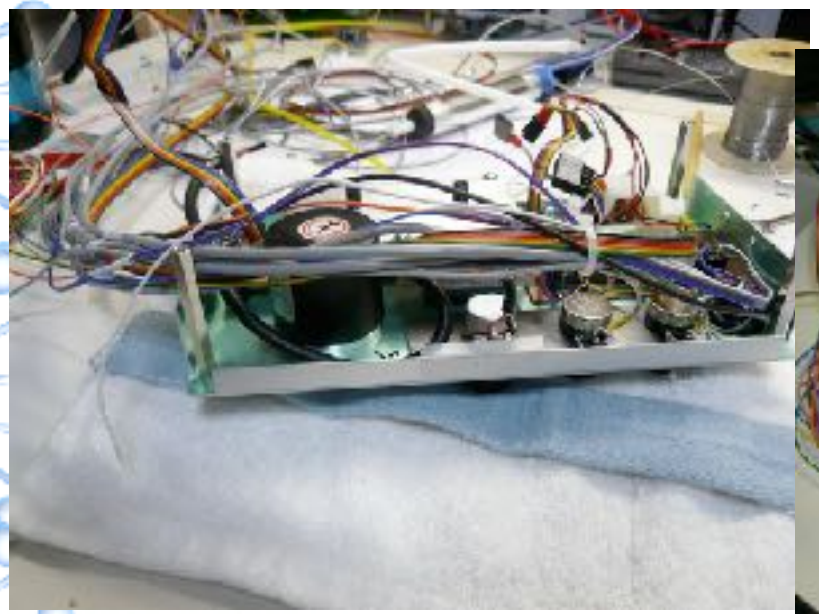


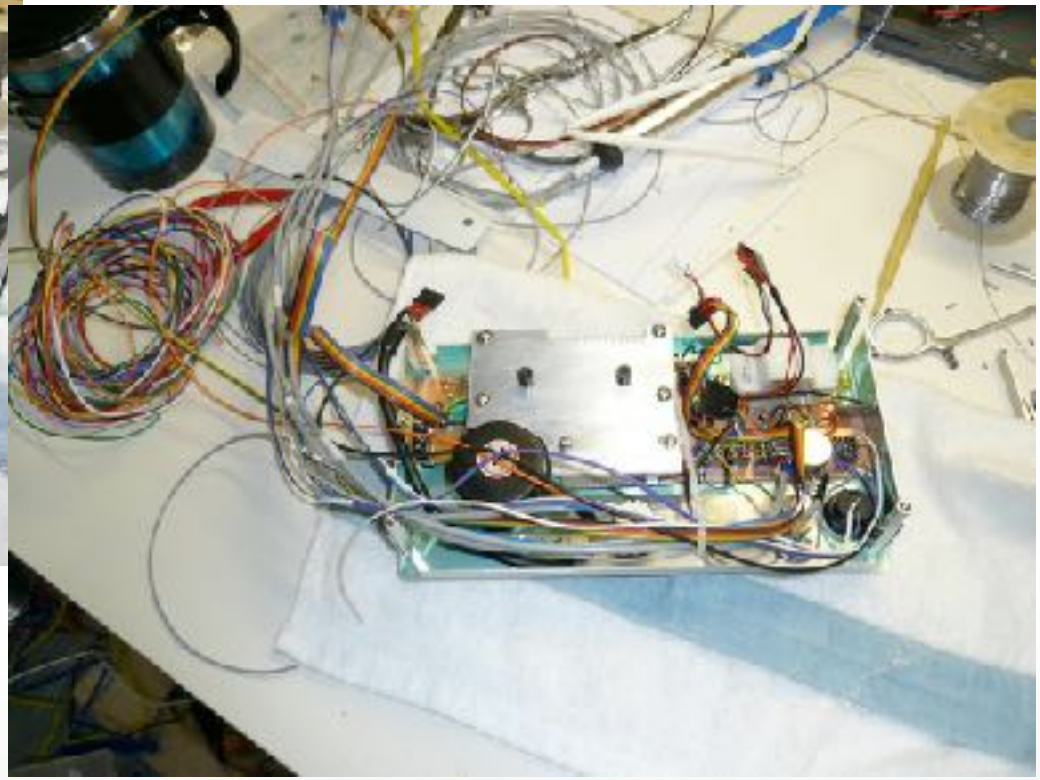
Power Supply Wired and DDS Interface



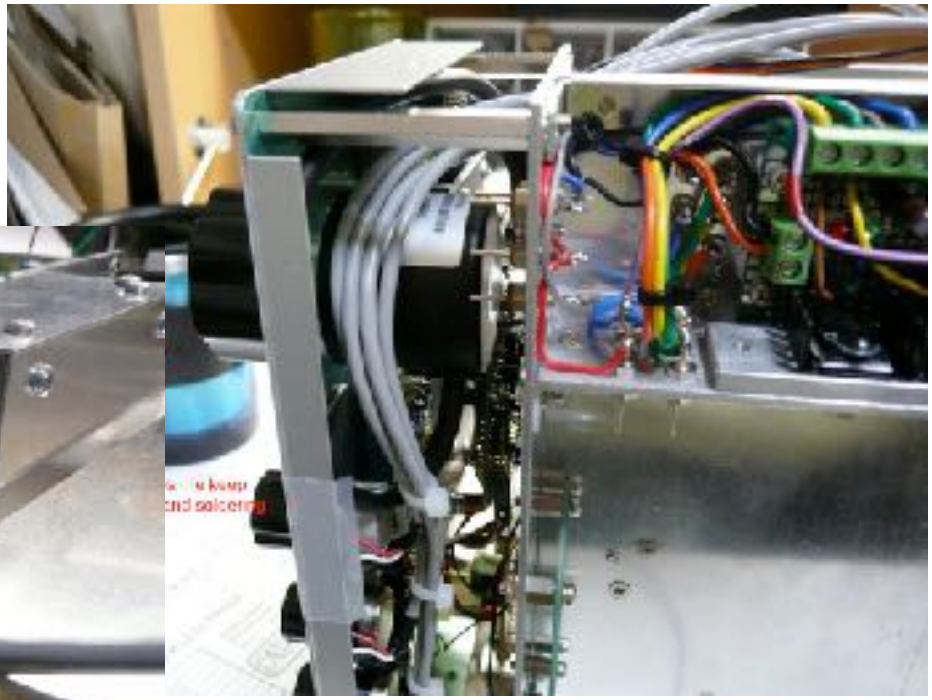
DDS buffer Amp / Hybrid splitter

Ugh!! Wiring the Front Panel!



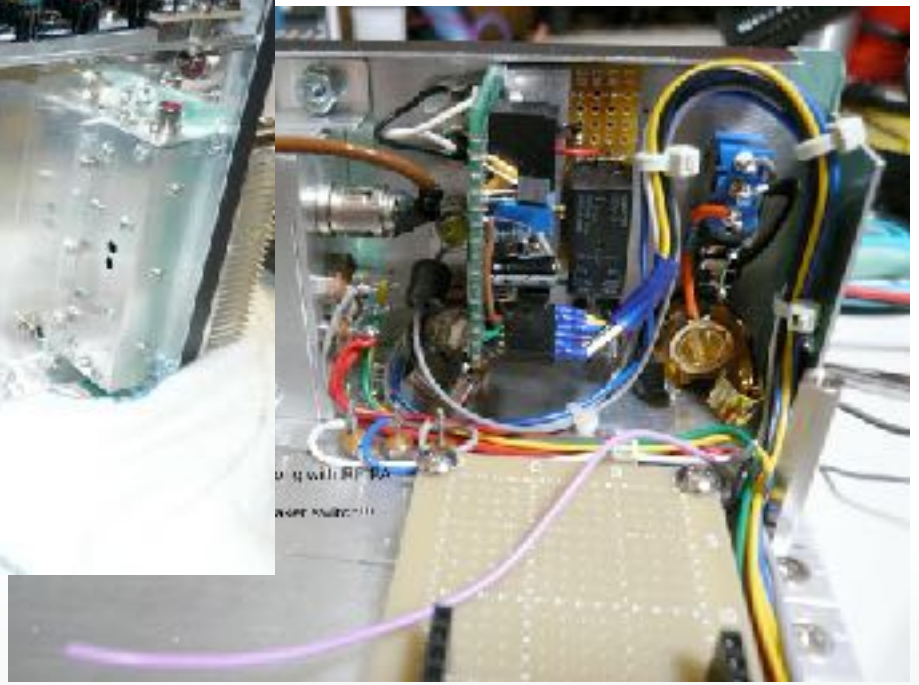


More Front panel – Cable Routing



Finally...Power to S Meter

All Front and Rear Panel Wiring

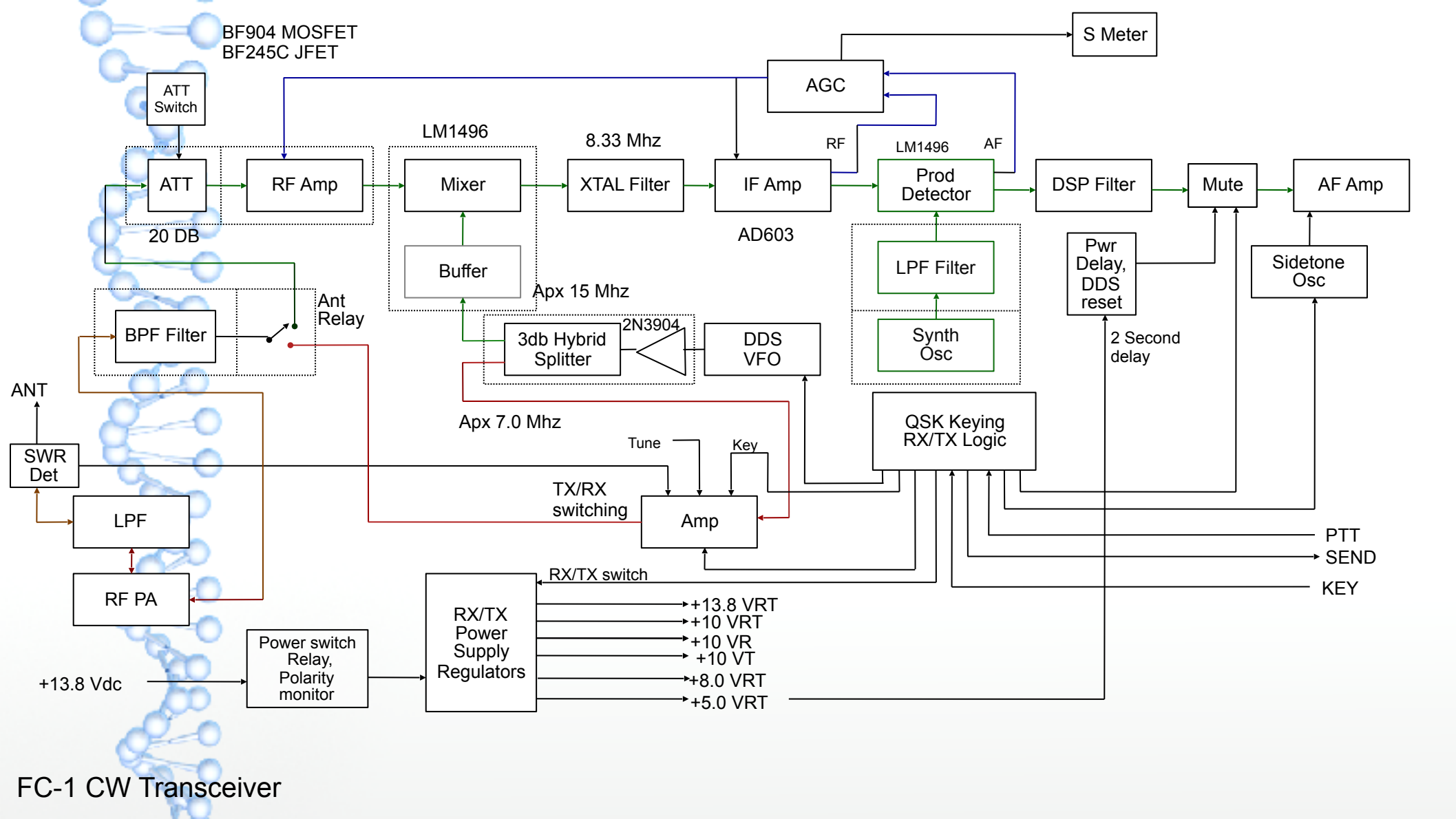


Adding Plastic Bezel to LCD

Power to DDS, Meter and AF Amp

Now.. to Build all the RX/TX Modules

Not “The End” yet!



FC-1 CW Transceiver