TX Power Amplifier

The final TX Amplifier uses a pair of RD16HHF1 transistors in push-pull mode. The driver is implemented also in this mode using two DXT3150 bipolar transistors.

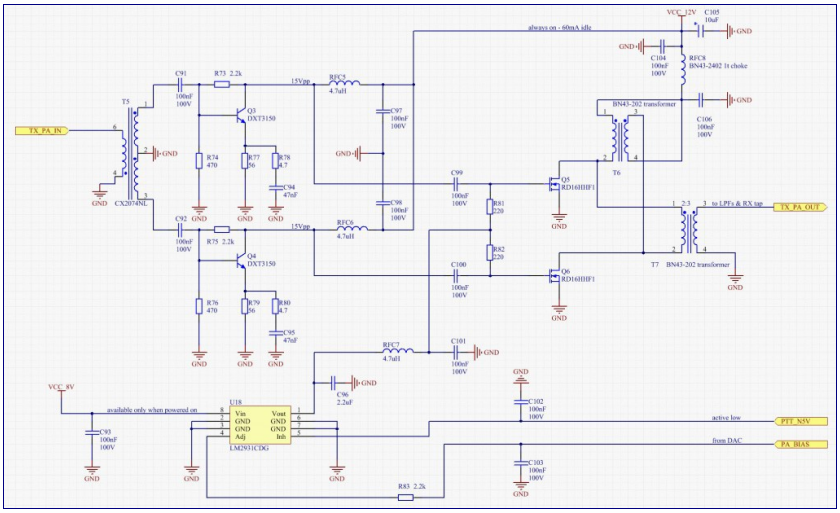

Fig1: PA schematics(click for a larger view)

The input transformer is off the shelf SMD type and provides excellent balance for the driver stage. Biasing for the final transistors is implemented via LM2931 linear regulator and DAC control voltage from the MCU. The INHIBIT input of the regulator is PTT signal controlled, thus minimizing power consumption during RX. The bias range is 2.5 – 4.3 V which allows usage of Mitsubishi or cheap IRF510 power transistors. Bias voltage could be adjusted via the software calibration menu, then stored in virtual eeprom.