

Idea to build this PA raised few years ago and thanks to Dragan YU1AW we were able to bring this project to completion. YU1AW designed the RF deck and helped us during adjustments and tuning with his countless and selfless suggestions.

Our friend Teo YU7AR has supplied us with GU36B-1 tube and built 3 phase transformer for anode power supply.

Amplifier itself was originally designed to operate in grounded G2 configuration. In order to avoid high negative voltage at G1 (to make input tuning less dangerous) we have rather switched to grounded cathode configuration. That change forced us to build a quality cooling capacitor for G2.

The anode resonator has been slightly shortened compared to the original design. Its diameter is 184 mm and length 500mm. RF choke is connected 202mm away from the end of the resonator.

Tune capacitor is 6.6pF, made from flexible brass sheet. Load capacitor is 2.7pF, with diameter of 100mm. Its capacitance changes by shifting the brass disc.

Anode is being cooled by two radial turbines producing 76mm H₂O and 985m³/h air flow.

Two smaller turbines are used to cool down the cathode compartment and transformers for all other power supplies.

Significant time was spent to adjust the input circuit. Finally we decided to use the version of the circuit shown in the schematic. SWR is not ideal one (1: 1.5) but power gain achieved this way is the best.

Output signal is fed through low pass filter and then through power/swr probe. SWR measurement is accurate regardless of the output power.

PA harbors home made coaxial antenna relay, LNA (MGF1302), power supplies for all control and bias voltages as well as protection circuits.

LED indicators show power sequencing at start-up followed by CW sounding ("QRV"). Protection circuit brings PA to permanent receive state if it lacks any of the control/bias voltages.

We are thankful to all friends who helped us to complete this project. It had been big and long time effort which at the end proved to be worthwhile.