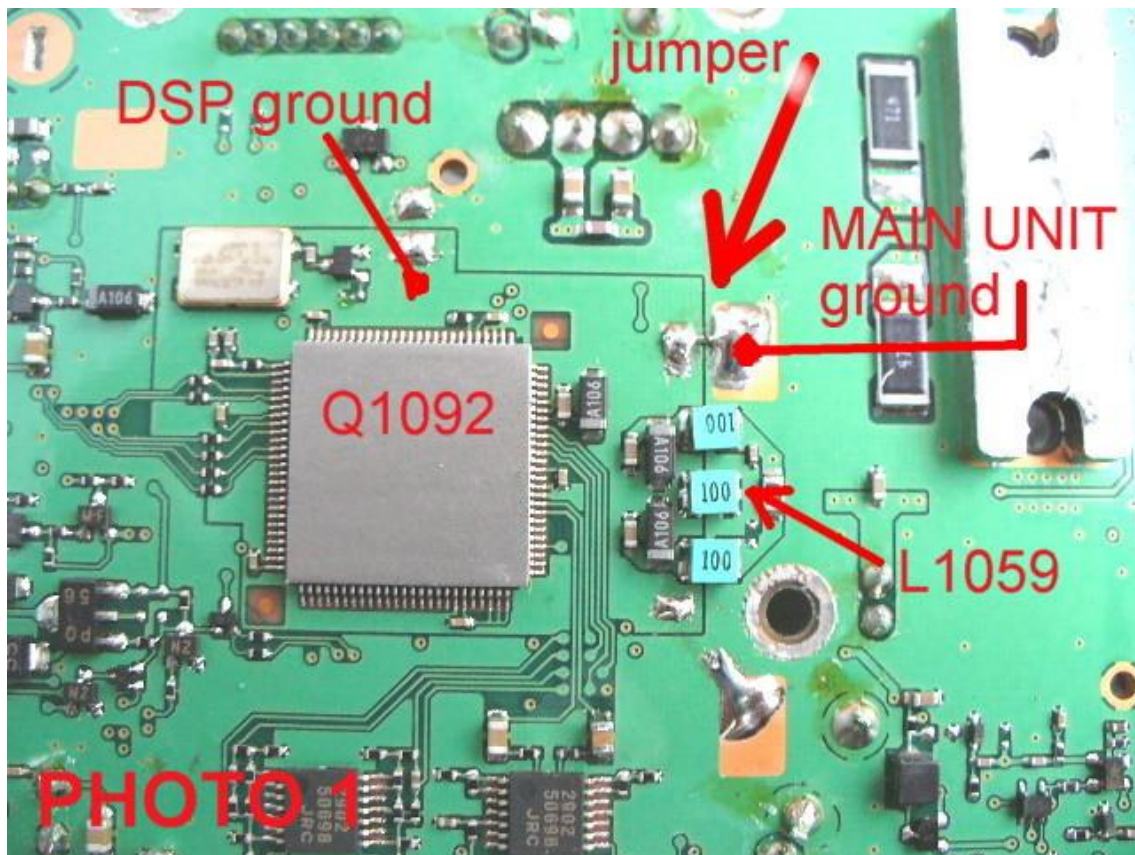


The problem is background noise TX (SSB-CW-FM mode)and RX birdies (SSB-CW mode).

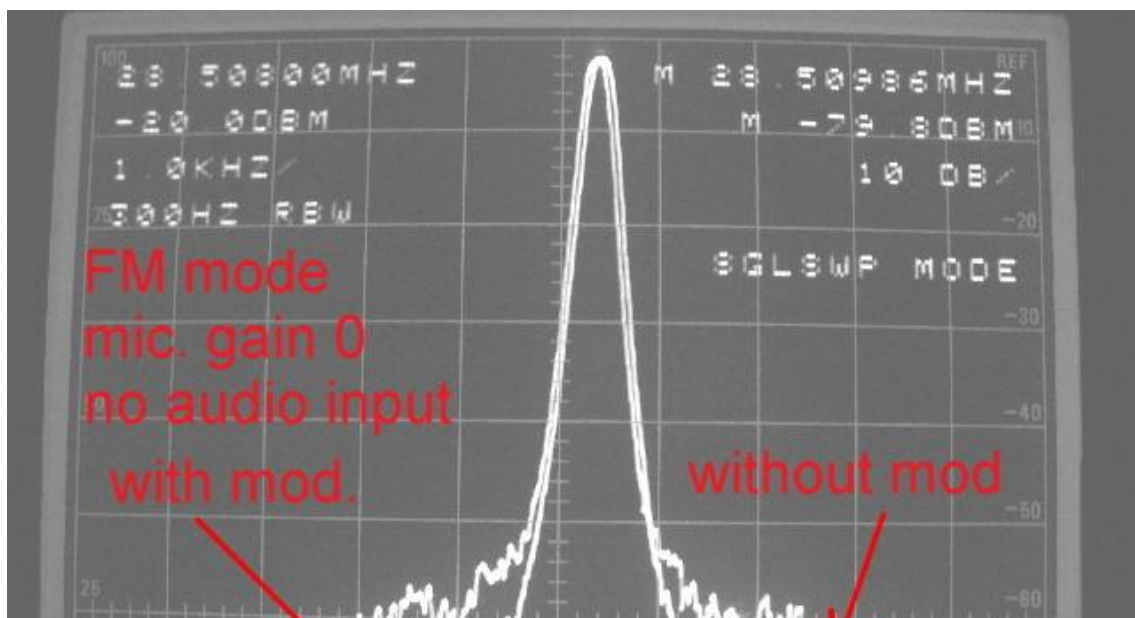
The audio signal is feed through DSP processor Q1092 (AK7712VT), analog and digital circuits inside Q1092 processing audio signal but analog and digital ground Q1092 must be separate. Yaesu, unfortunately, design layout board with single ground. L1059 (10microH) separate DSP ground to main unit ground.

To operate at bottom side main unit :

open top cover, remove main unit (carefully flat cable), locate Q1092, add jumper (photo 1)
reassembly main unit.



After modification TX noise in SSB mode decrease about -10-20dB (photo 2-3), FM mode -10dB (photo 4), RX SSB and CW mode no audio birdies.



It's a simple comparison before/after mod with all 3 MIC-settings = 0 (AM,FM,SSB), so that only the noise is hearable.

There's a significant dropdown of the TX noise, especially on SSB PROC ON.

```
AM - before / after mod
FM - before / after mod
SSB - before / after mod (here no difference it seems)
SSB PROC - before / before with PROC ON / after with PROC ON (huge
difference !!)
```

On SSB it's quite normal that the noise still raises a little bit while switching PROC ON cause an additionally amplifier stage is switched in.