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## Introduction

I started on doing modifications of CB- and HAM-radios since 1980 at the age of 12 years. I mostly wasn't satisfied with the sound of the modulation or reception of my rigs. This is normally founded by restrictions of the local law or by rationalize productions. Only expensive high-class amateur radios have a good sound on their basic state.

Therefore there must be some possibilities for improvements. So I learned the basics of RF electronics on myself and did a lot of modifications until today and I would like to spend my experiences to all other electronic interested people, CB- or HAM-radio stations.

You have to recognize your local laws. Mostly modifications aren't allowed by the local law or by the manufactures. So you do it on your own risk. Also the brand new HAM rigs are mostly build with a lot of teeny-weeny SMD parts. You have to use special equipment and you also must have a great expert knowledge. So some modifications aren't for only hobby electronic technicians.

***So this and all of my Modification Sheet are for education purposes only !***

Used pix are mostly done with my Fujifilm „FinePix 6800 Zoom“ on resolution „3M/Fine“, but they are reduced on their size due to minimize the total file size of this publication.

**Modifications overview****TX**

R1333 (2.2k)	Remove or replace with 6k8	Better microphone sensitivity of the internal electret capsule.
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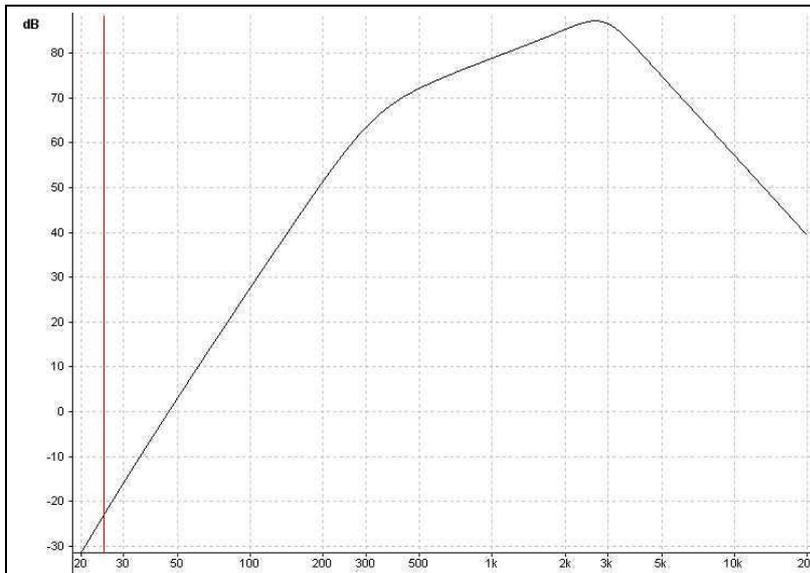
**RX**

C1210 (4.7nF)	Remove	More heights, but not really necessary to remove.
C1157 (47nF)	Remove	More heights. Important to remove !!

**Other**

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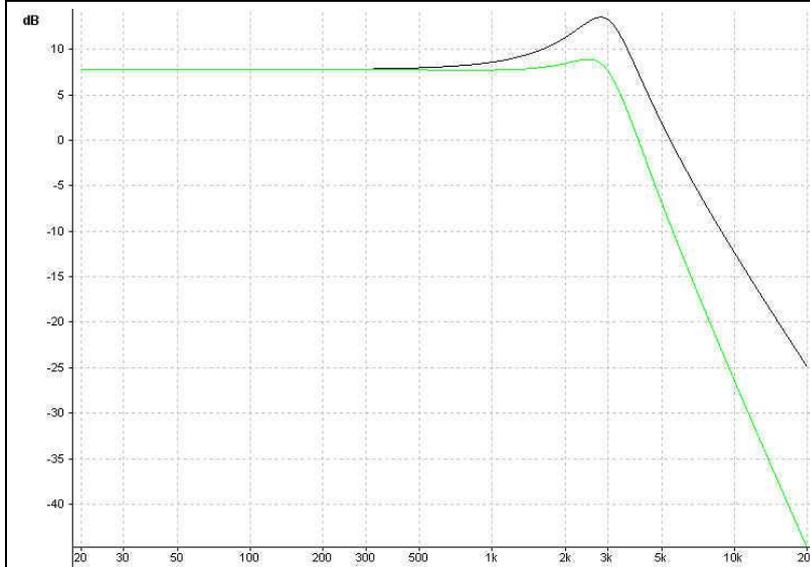
After these (mainly RX) audio modifications the HT is useable in louder environments too cause of the higher AF output level and the much raised intelligibility.



**Transmitter**

AF audio range curve

The audio characteristic has good range and a peak on 2.5 kHz for good articulation. I won't change that.

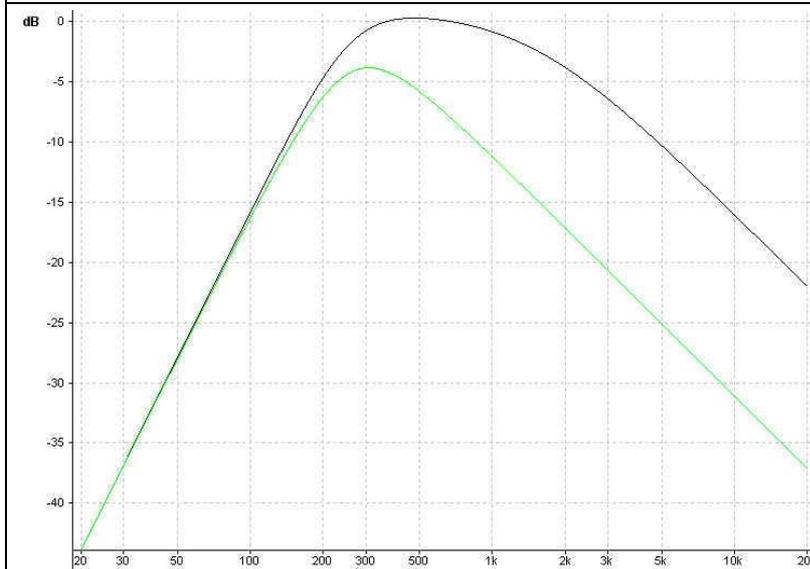


**Receiver**

AF audio range curve

- Original (green)
- Modified (black)

By removing C1210

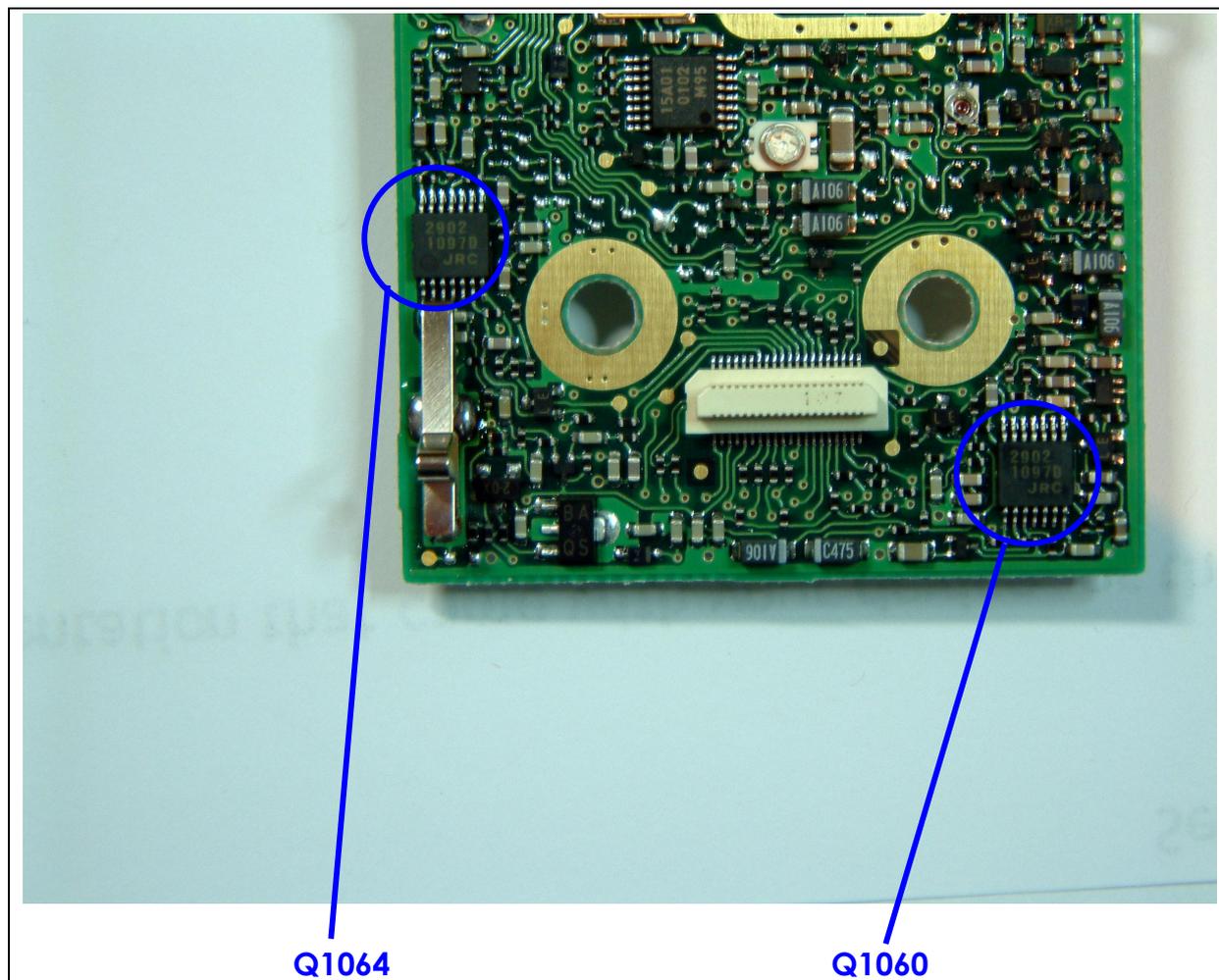


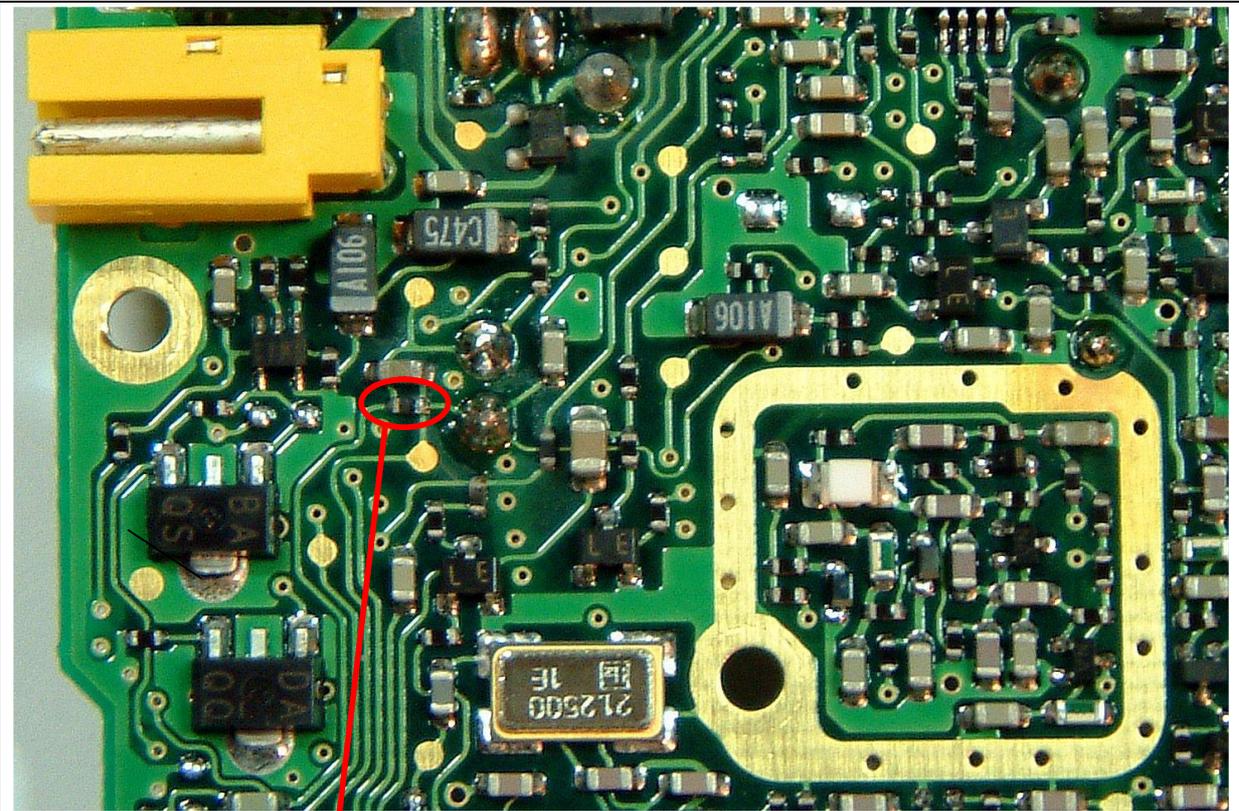
AF audio range curve

- Original (green)
- Modified (black)

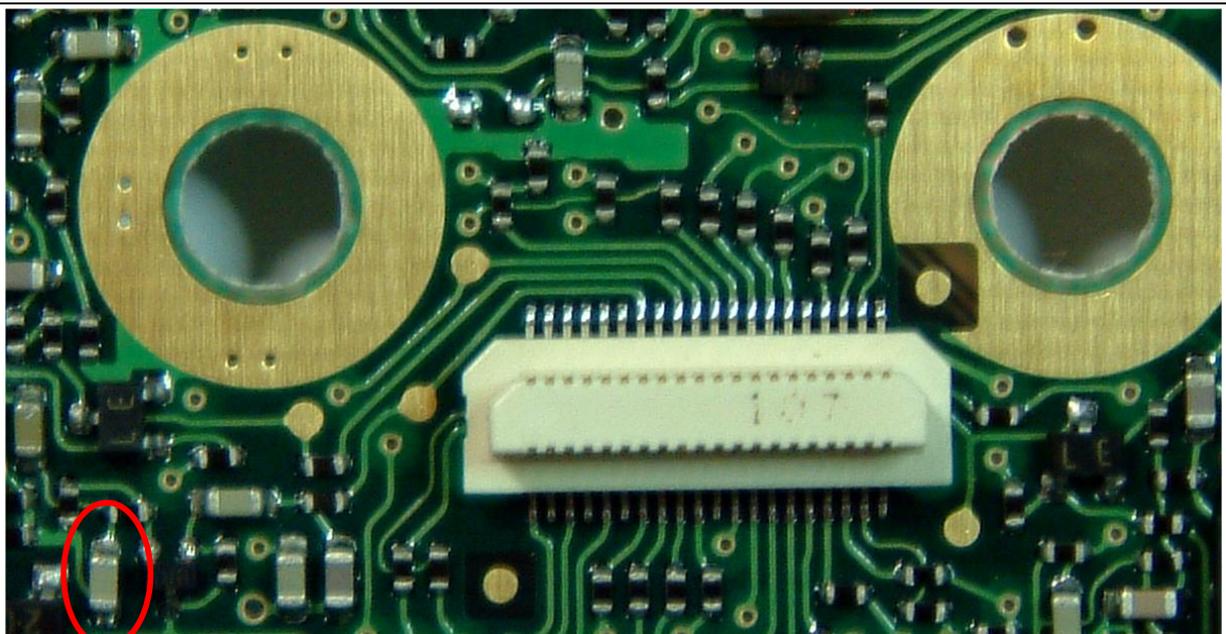
By removing C1157

Details

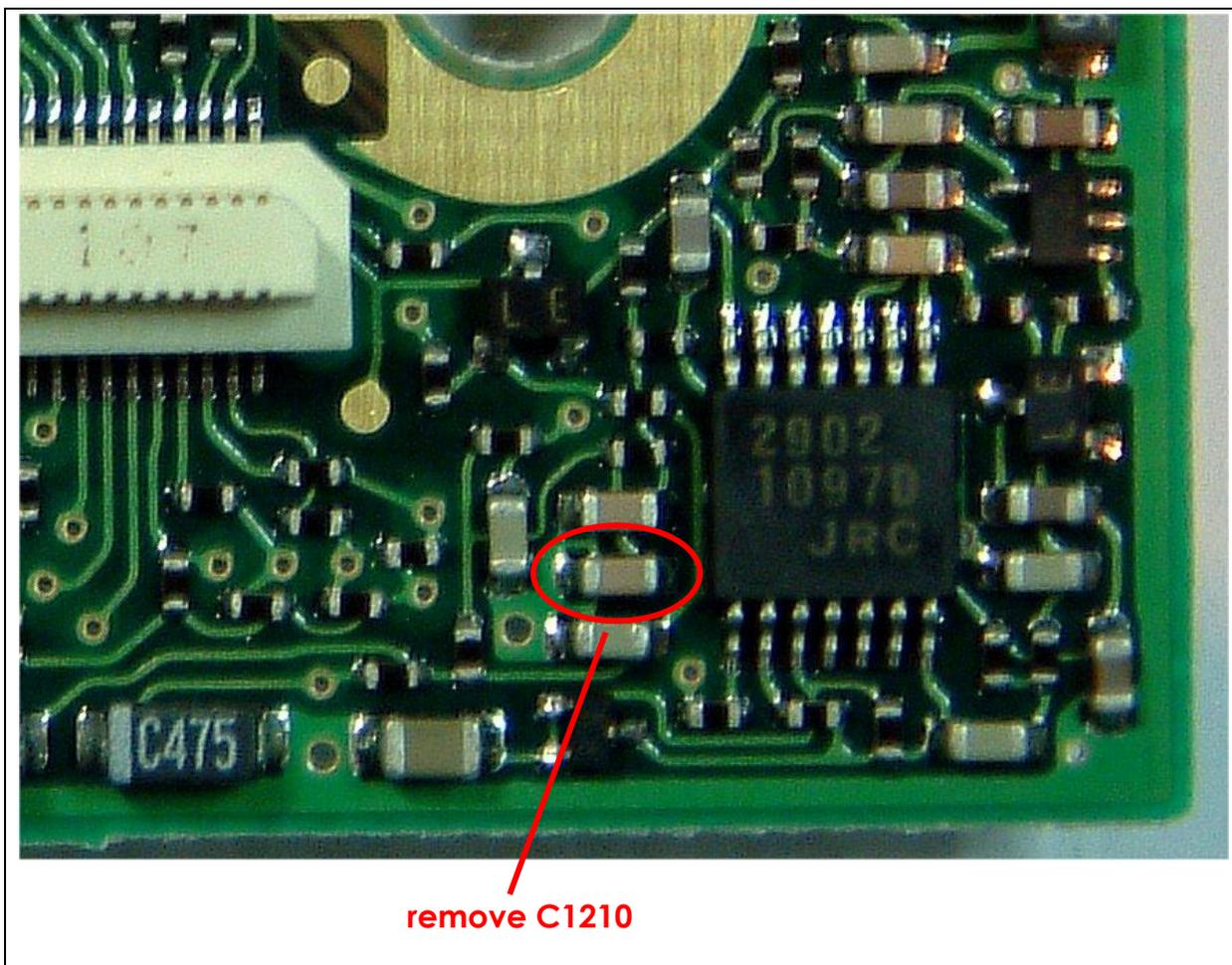




**remove R1333 or replace by 6k8**



**remove C1157**



## Disclaimer • Disclaimer of liability

This modifications mostly need to be done by a electronic specialist who had enough practise and who has knowledge in SMD soldering. **You do the modifications on your own risk !**

Radio modifications shown here are provided for properly licensed operators only! The user is solely responsible for making sure that any modifications made to the radio unit must meet all Federal and State Regulations or the Country of use! Liability of damages to any equipment is the sole responsibility of the user! Downloading , viewing, or using any information provided on these pages automatically accepts the user to the terms of this agreement! Modifications are provided for information purposes only!

Although the greatest care has been taken while compiling these documents, we cannot guarantee that the instructions will work on every radio presented.

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