



Ken Eckert <eckertkp@gmail.com>

# Re: [Rohde-and-Schwarz] SMS2 Y1 Output Szage Issue below 130MHz

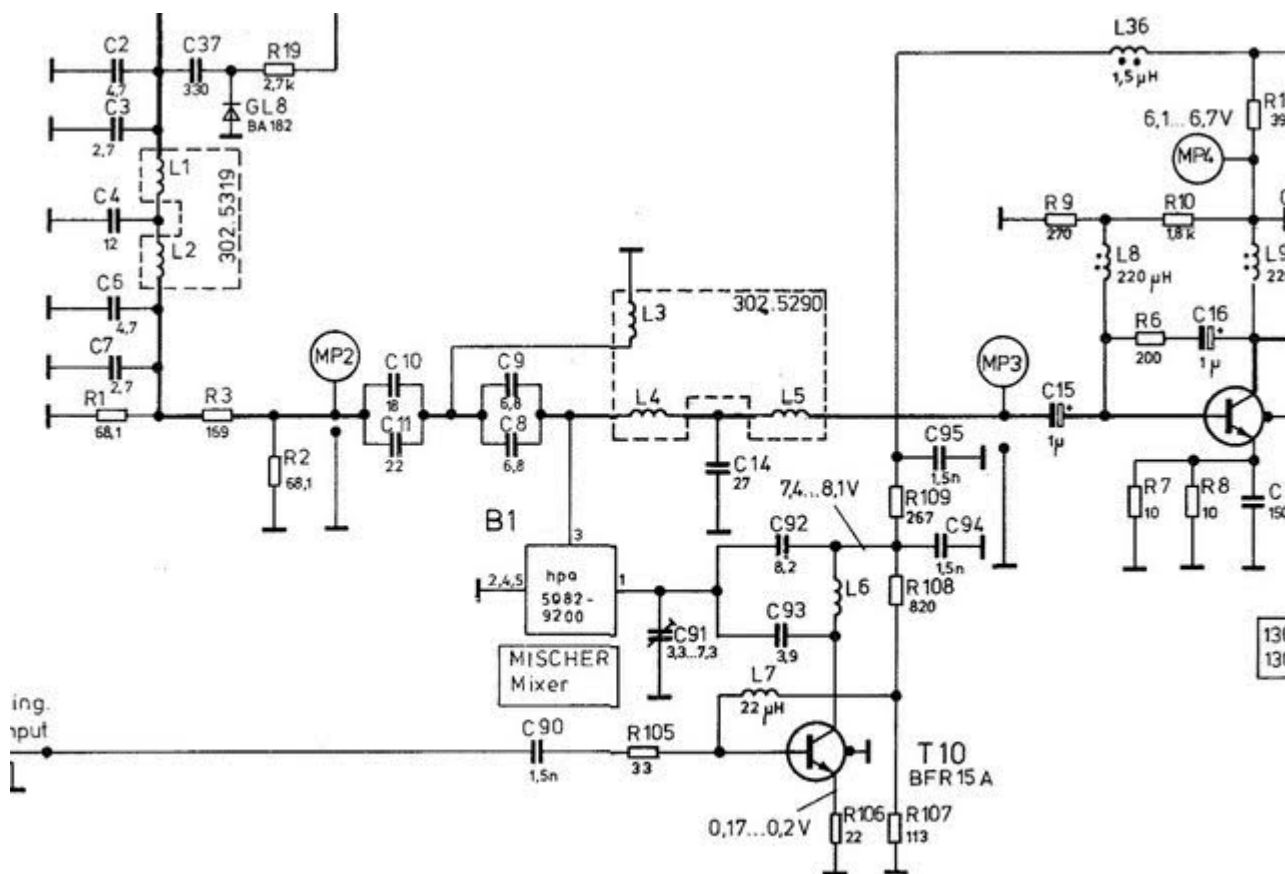
2 messages

Marc73 <Mac73@web.de>  
Reply-To: Rohde-and-Schwarz@groups.io  
To: Rohde-and-Schwarz@groups.io

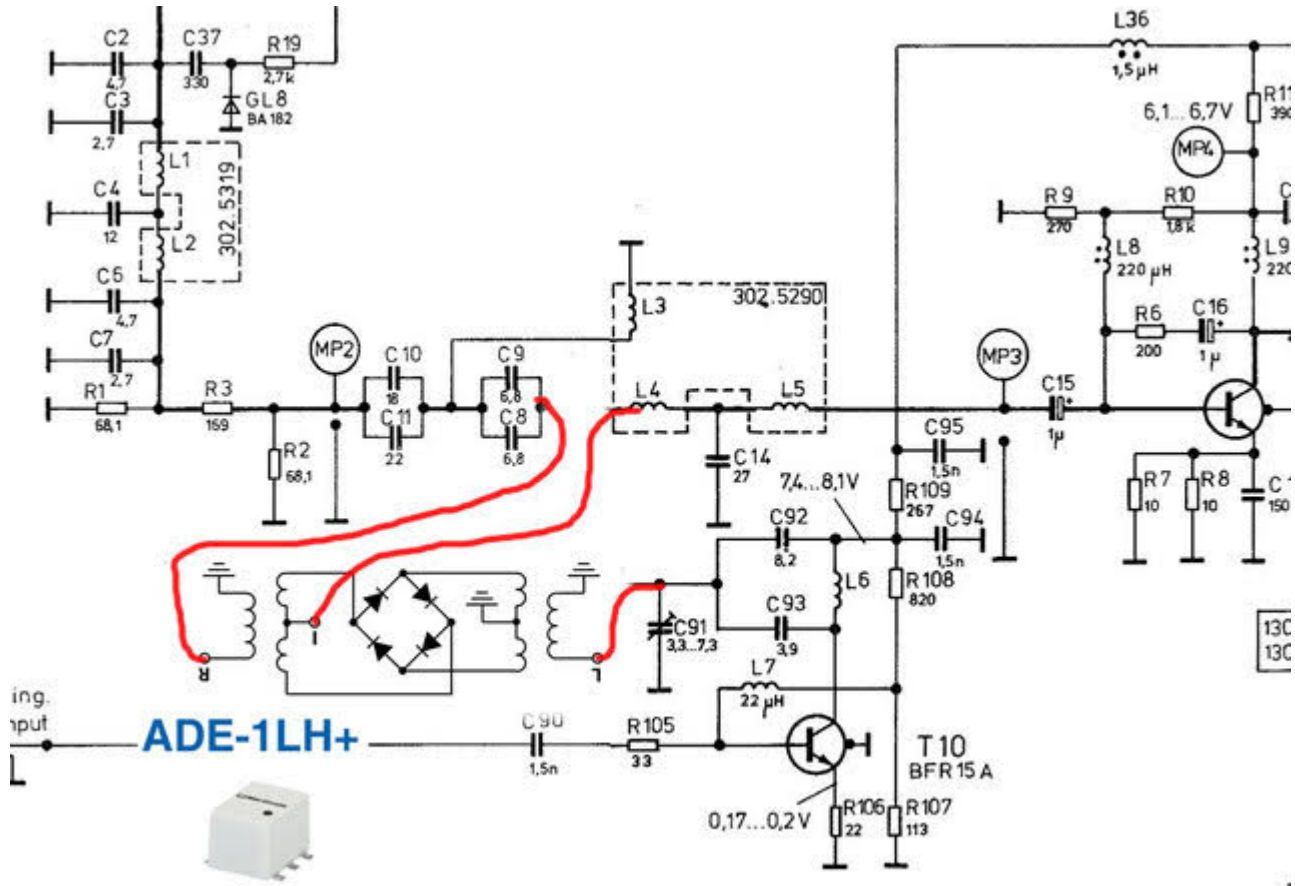
Sun, Jan 30, 2022 at 8:28 AM

Just would like to inform you that I sucessfully repaired the SMS2. My suspicion was right, ist was the mixer! As this kond of old style mixer (HP approx. 1975) is virtually impssible to get as a spare part I decided to modify the circuit. Today the only passive mxers that are available are double balanced mixers, e.g. by Mini Circuits. That how my modification looks like:

Original Circuit:



Modified circuit:



After that the SMS2 has constant output also below 130MHz down to the minimum frequency. Harmonics and Spurs are visible but 40dB below the output signal.

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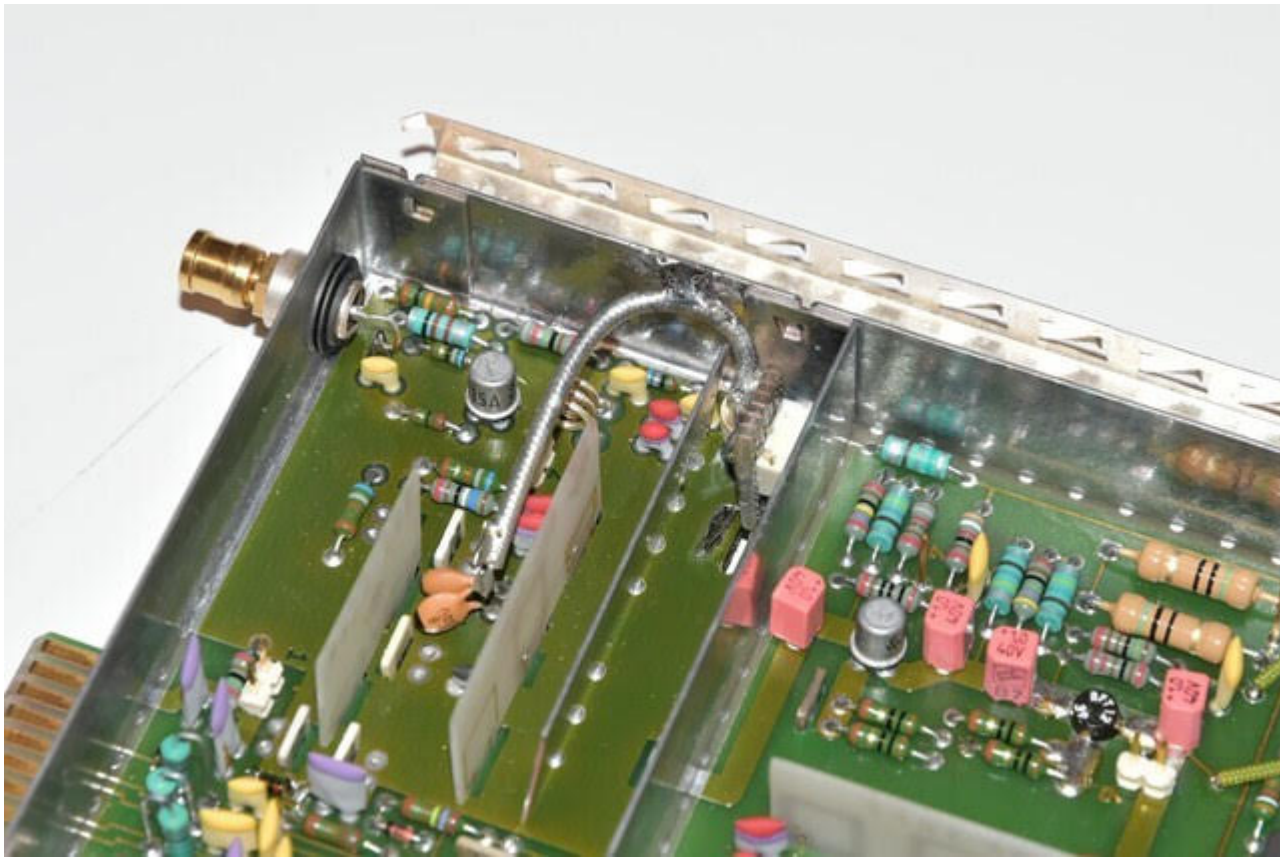
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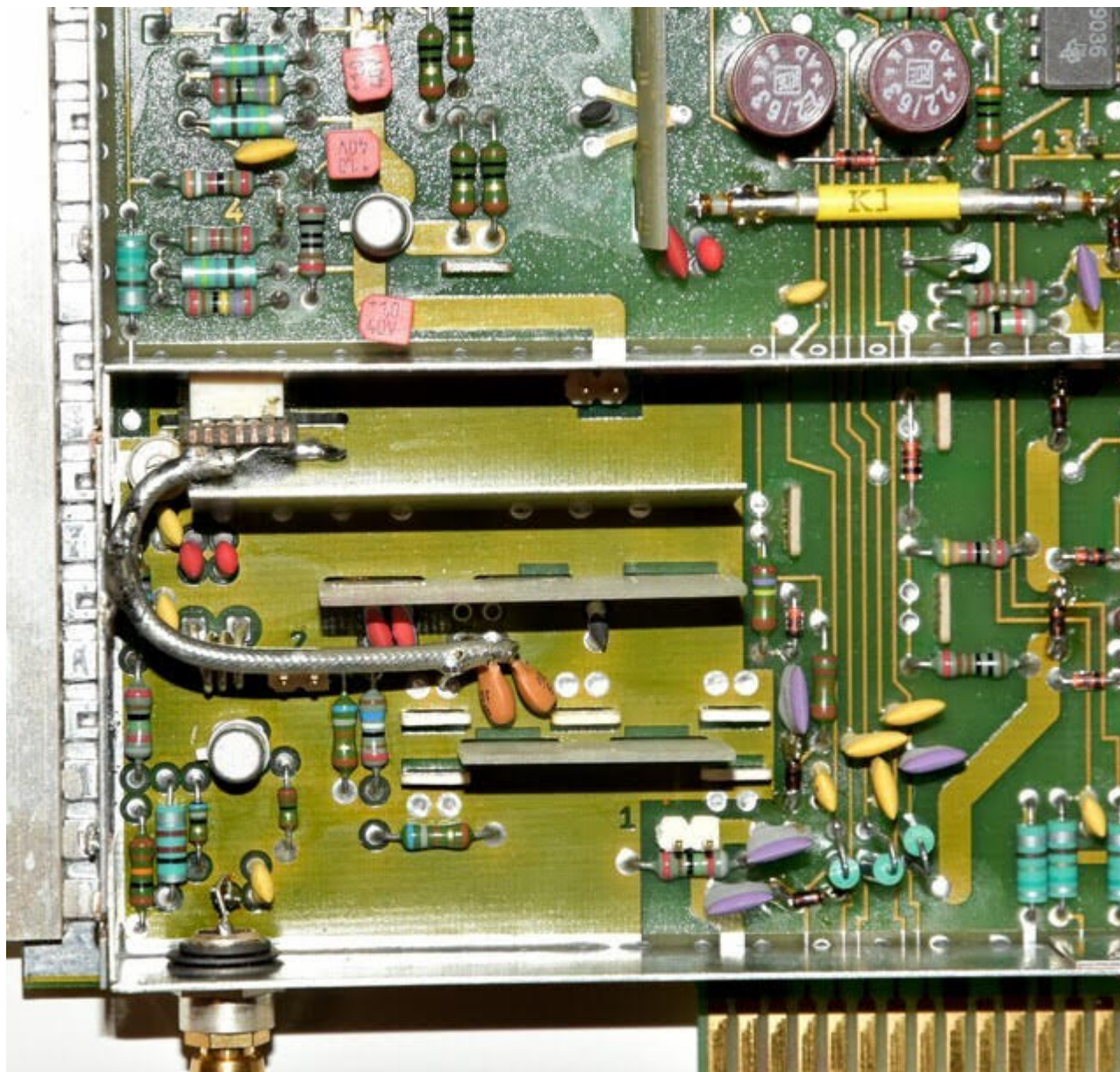
**Marc73** <Mac73@web.de>  
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Sun, Jan 30, 2022 at 8:34 AM

In practice the modification looks like this:







I had to put the mixer on a small PCB and attach LO and IF directly the the slot of the original mixer. IF and RF were separated by desolderung C8 and C9. RF is connected by means of a small coax cable.

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