Comments on repairing Qualcomm 10 volt power supplies (Text and Diagram updated 3/8/2004)

(Excerpts from an email from WA3PTV to WB6IGP, of Feb 04,2003)

Hello Chuck. I was able to repair 11 out of 12 Power supply boards that I now have. 99% of the problems with these boards centers around the 2 electrolytic filter caps, C22 and C2 in the -5 volt dc/dc converter section. The 2 caps, 120uf/16volt, cost less than 2 dollars.

I believe you said on the phone recently, that a lot of these power supply boards were (going) bad. I would suggest you don't throw all the bad ones you have away, as I believe most should be easily repairable. Of course this is based on my experience with only 12 of them.

Additional comments by Chuck Houghton WB6IGP. (Updated)

With +12.5 volts input, If the minus 5 volt no-load output is between negative 0.2v and negative 4.5v then the failure is most likely to be the two electrolytics, C2 and C22 mentioned in the letter above.

If the minus 5 volt output is a positive value of about +0.8 volts, then the LT1044 is most likely defective. A 7660 negative generator is a good replacement. ((The 7661 (which we have stock of) is another pin compatible replacement but is limited in output current (2 Ma.) and under test to see if it will support the power amp current requirements.))

10 volt power supply -- view of component side

