

[CQ-Contest] IC-781 vs IC-775DSP

from [\[Bill Hider\]](#)

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Subject: [CQ-Contest] IC-781 vs IC-775DSP

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Well, I had an opportunity to use my new IC-775DSP in both the ARRL DX CW contest and ARRL DX SSB contest. Previously, I used my IC-781 in the SSB and CW CQ DX Contests. I have a basis of comparison.

Let me tell you that I have the narrow CW and SSB filters in each rig. The 781 has the IRCI 1.8 KHz SSB filters and the 775 has the ICOM 1.9 KHz SSB filters. Both radios have ICOM 250 Hz CW filters.

First of all, the CW report:

The 781 operates superbly on CW. The narrow filters let me use a 100-200 Hz bandwidth in the CW contests without a problem. With the 775 though, I have been having some problems with the operation on CW. First of all, there is an intermod product in the 775 receiver whenever the "split" function is selected in CW mode. This causes duplicate signals on the band. Additionally, the 775 rx tended to overload badly at the first hint of loud Europeans on the Saturday morning opening into EU during the ARRL CW DX contest this year, the first opportunity I had to use it on CW in a contest. That day, I swapped it out for the 781. The 781 would not overload and performed flawlessly for the remainder of the contest.

I have since troubleshot the problems and have discussed it with other 775 owners. The factory will be able to solve the intermod problem. I will be sending it back later this week for ICOM warrantee repair. The overload problem might have been caused by my not using the bandpass tuning properly. I have since concluded that I didn't fully understand the "TWIN PBT" arrangement.

Earlier on Friday night in the ARRL CW DX contest though, the 775 DSP performed nicely on 160, 80. (There was no overload as there was on Saturday am on 20. Also, I knew about the "split" problem and avoided that early in the contest).

SSB:

SSB was a different story. In the CQ SSB DX contest last October, I had the first opportunity to try out my 781 with its new IRCI filters. The problem I had experienced was that the 781 would overload in the presence of the very loud signals, especially on 20 SSB, during the daytime EU runs. The 781 could not handle that at all. That's why I bought the IRCI narrow filters. Those filters didn't help! The 781 would overload and adding attenuation just didn't solve the problem.

Using the 775 made all the difference in the world. The electronic passband tuning and the stock (2.4 KHz) filters were all I needed. The 1.9 KHz ICOM SSB filters were seldom used, even on 20. No RX overload. Nice operation of the DSP on the noisy bands also. In fact, using the tone tracking/elimination feature of the DSP on SSB allowed me to receive in the CW segments of 80 and 40 while working split from the US. (Please don't get into the bandplan issues with me.) I hardly ever had to use the 1.9 KHz filters.

Bottom line:

The IC-775DSP is an EXCELLENT rx on SSB. The DSP functions are little short of miraculous in this mode. I was able to hold 14.166 MHz for over four hours during the ARRL SSB DX contest this year, on Sunday morning from the time the band opened to EU. I eventually moved to 15.

The IC-781 didn't approach the IC-775DSP performance on SSB.

The jury is still out on the IC-775DSP performance on CW, however, the intermod problem appears to be non-intrinsic. Other owners report no problem in this regard, although early 775DSP radios, of which I am not supposed to have, did have similar problems. Also, re:the overload problem, I was not using the electronic bandpass tuning properly, probably causing the overload symptom.

I bought the 775DSP because of the SSB problems I was having with the 781. I was not disappointed in this regard. The 775 performed beautifully on SSB. I believe I will get the CW problems fixed that I've had with the 775.

By the way, the IC-775DSP is the first HF rig that I've bought new! Ever! (Not counting that Hallicrafters S-108 that my parents bought new for me in 1963.)

I mention this because there was a discussion about the IC-781 being WAY out of the financial ballpark...Well, mine cost the same as my 775! I paid \$3400 for each radio. The 781 being used and the 775 new. I've since seen many 781s for sale in the \$3000-\$3400 price range. So, in my view, they are equivalent in price!

That's all I have to report for now. Drop me an email if you have questions/comments!

73!

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