Modification of the Creative XFi soundcard for improved RX and TX performance with SoftRock SDR's

Roger Graves, VE7VV
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Leif, SM5BSZ's, results of testing RX performance of many soundcards shows that the Creative Xi-Fi USB device provides excellent RX performance after modification according to the instructions from Martin, IW3AUT.
http://www.sm5bsz.com/linuxdsp/hware/ensemble.htm
http://www.rfsystem.it/shop/download/SB_Creative_XFi_Pro_USB.pdf

I modified my Xi-Fi as follows.
Martin had used a 1000 uF 6.3V cap, but the one I purchased was too large diameter to fit in the enclosure. Instead of using 1000 uF on C100, I used a 100 uF low ESR cap that I had on hand. I also installed the same type of cap on C40. This worked - all the USB spikes disappeared. The result was no spikes and the noise floor lowered by 2 dB, similar to what IW3AUT reported. My floor is now -135 dB in HDSDR 2.7 using the same parameters that IW3AUT showed. I only used the 16 bit 96 kHz mode.

Since I am using my Xi-Fi also for transmit with a Softrock RXTX, I also added two of the 100 uF low ESR caps to the DAC section, one on C114 which I found was a bypass for pin 10 the analog voltage reference, and one on C116 which I did not trace but I suspect is a bypass for the analog V+ input. I do not have the means to do a proper test of the line out, but I believe the effect of these added caps was beneficial since I observed the WSPR transmitter output on a local SDR receiver 1 km distant. The trace of the 2 Hz FSK signal was visibly cleaner after the DAC mod, showing a sharper line with less fuzzy spread on the waterfall.

In addition, a spectrum analyzer measurement showed that the broadband noise around the main TX signal was quite low as shown in the attached plot (there was an extra 20 dB attenuator before the analyzer so the signal was actually at +30dBm). This shows a 1 Watt CW signal at 475 kHz from my LF/MF modified RXTX. Since this RXTX also has my modified TX op amp 2 pole low pass filters,
http://qsl.net/ve7vv/Files/RXTX%20TX%20op%20amp%20filter%20mod.pdf
the noise with an unmodified RXTX may not be quite as good but this shows that the modified Xi-Fi appears capable of good TX performance.
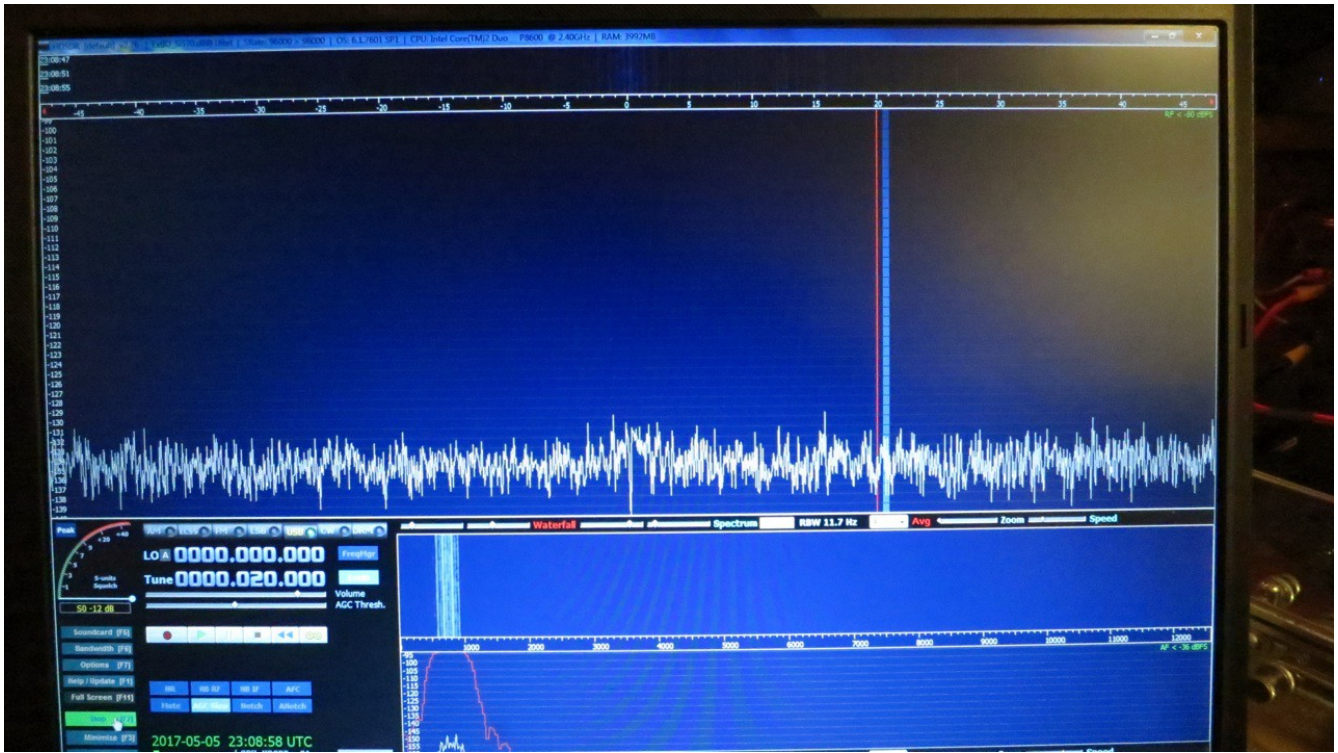
The photos below show the improvement in performance and the board after the modifications.
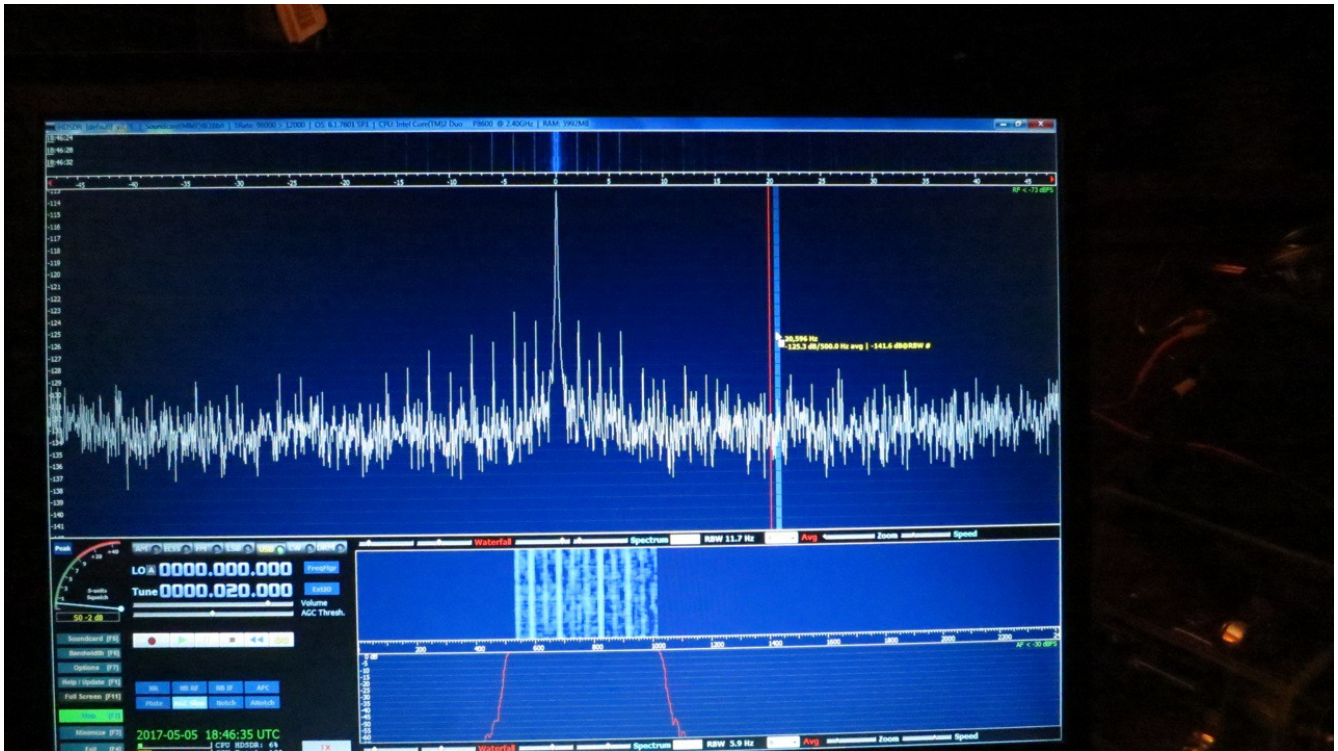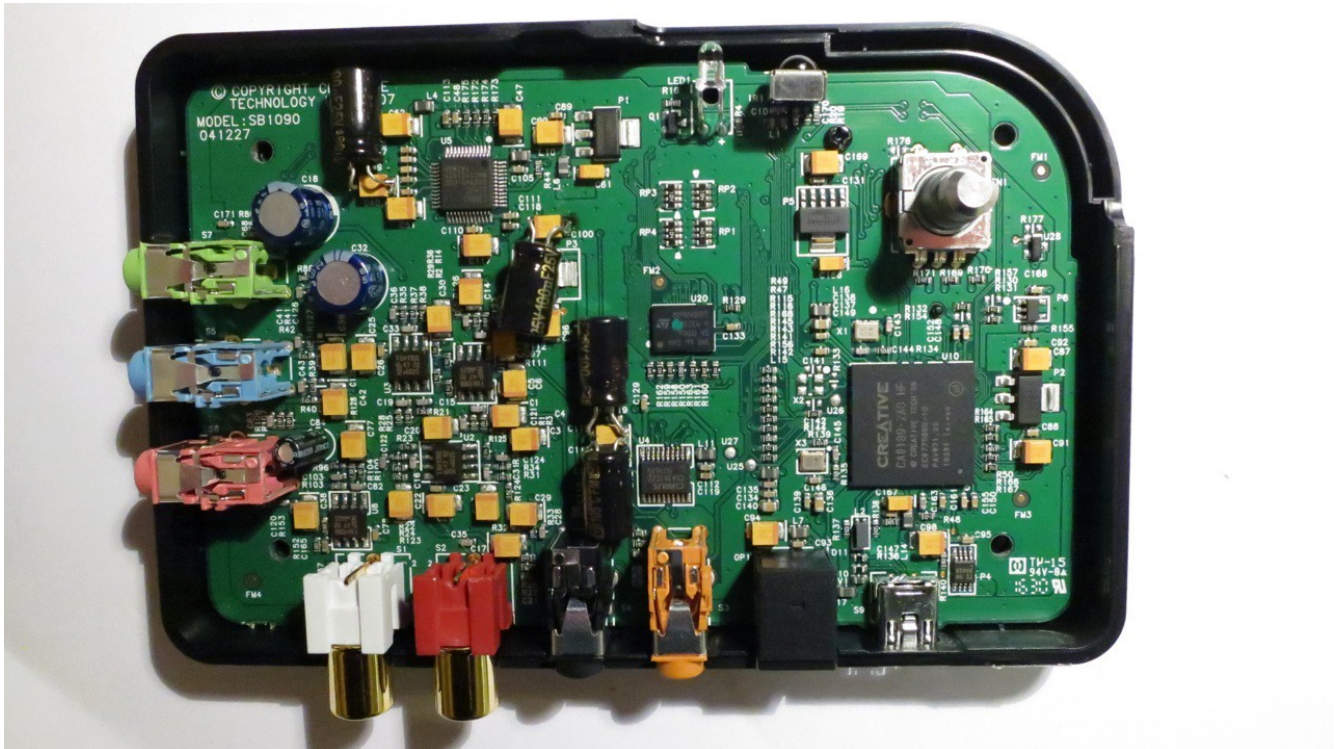
XFi RX noise floor before modification
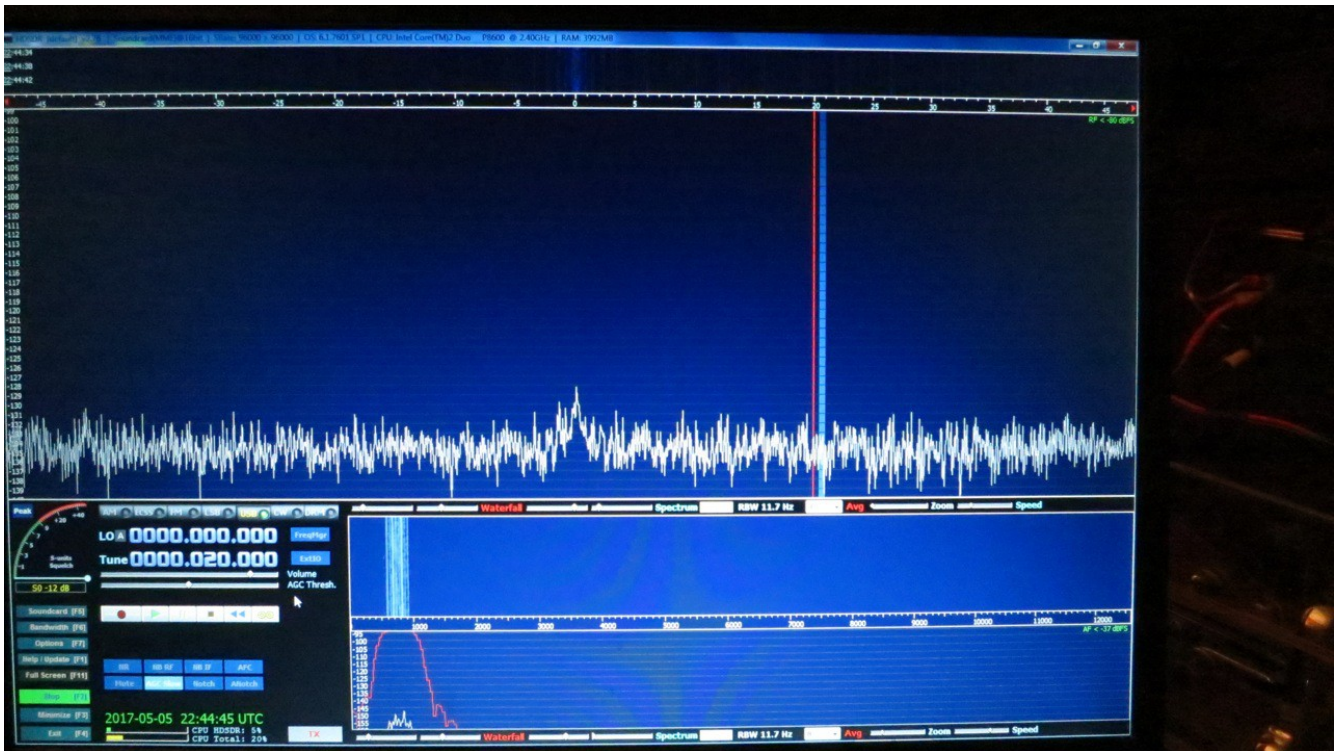
XFi RX noise floor after addition of 2 caps.

XFi RX noise floor after addition of 4 caps

XFi board after the modifications