

Flex 5000 and Smooth Audio with Rack Gear

I just upgraded from a Flex SDR-1000 to the Flex 5000A and it was probably the best upgrade I have ever done. The abundance of new options on the 5000 over the 1000 is amazing.

I am somewhat of an audiophile and have a complete audio rack system that was set up for the SDR-1000, I thought it would be pretty much plug and play, well I was mistaken. The 5000 is a bit pickier on whats coming into the radio. I plugged in to the back of the 5000 and left all of the PSDR settings at factory default with all the processing turned off, that was my first mistake. I had horrible pumping and scratchiness on the audio. I then found a wonderful set up article by W1AEX, Rob Connelly. Rob explains in detail how to set up the PSDR gain settings. His article is a must read before you continue. <http://www.w1aex.com/psdrgain/psdrgain.html> His recommendations worked to an extent but I still had a bit of scratch, so this is how I managed to get my audio straightened out.

I did a bit of searching on the Flex knowledge base and found that the TX Buffers for phone on the DSP tab needed to be set for 4096 so I made that change. Then I had to get the mic gain on the main view of PSDR to work correctly set at 35, which is ½ scale. I opened the mixer with the mic gain set at 35 and set the meter to MIC and tried to get the meter reading right around 0. I had to enable the mic boost to keep the mixer setting at the ½ way point or just a touch less. If you use more than that you tend to pick up that nasty scratch in the audio. I don't use the leveler and the ALC settings are at the default menu settings. My ALC was between -5 and 0 on the meter. My audio is now clean and smooth just as it had been on my SDR-1000. Audio reports were excellent and I am now a happy audiophile with a Flex 5000.

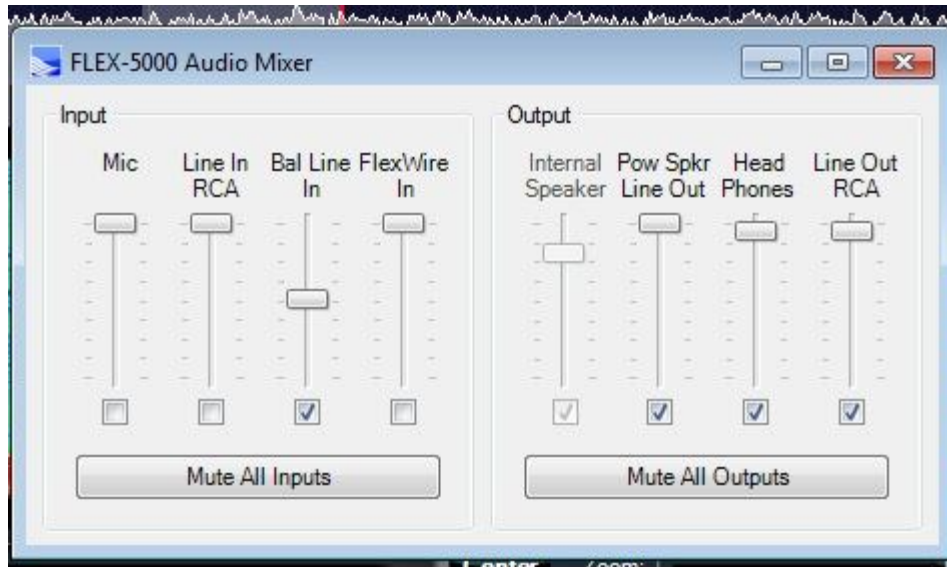
My Rack gear consists of the following;

AKG Preception 220 Condenser Microphone with POP Filter
Behringer UltraGain PRO Mic-2200
Behringer Ultra Curve PRO DEQ-2496 Parametric EQ
Behringer UltraFex PRO EX3200 Ultraband sound enhancer
Behringer Virtualizer PRO DSP2024P Effect processor

I have added some screen captures of my settings to make it a bit easier to follow in the software.

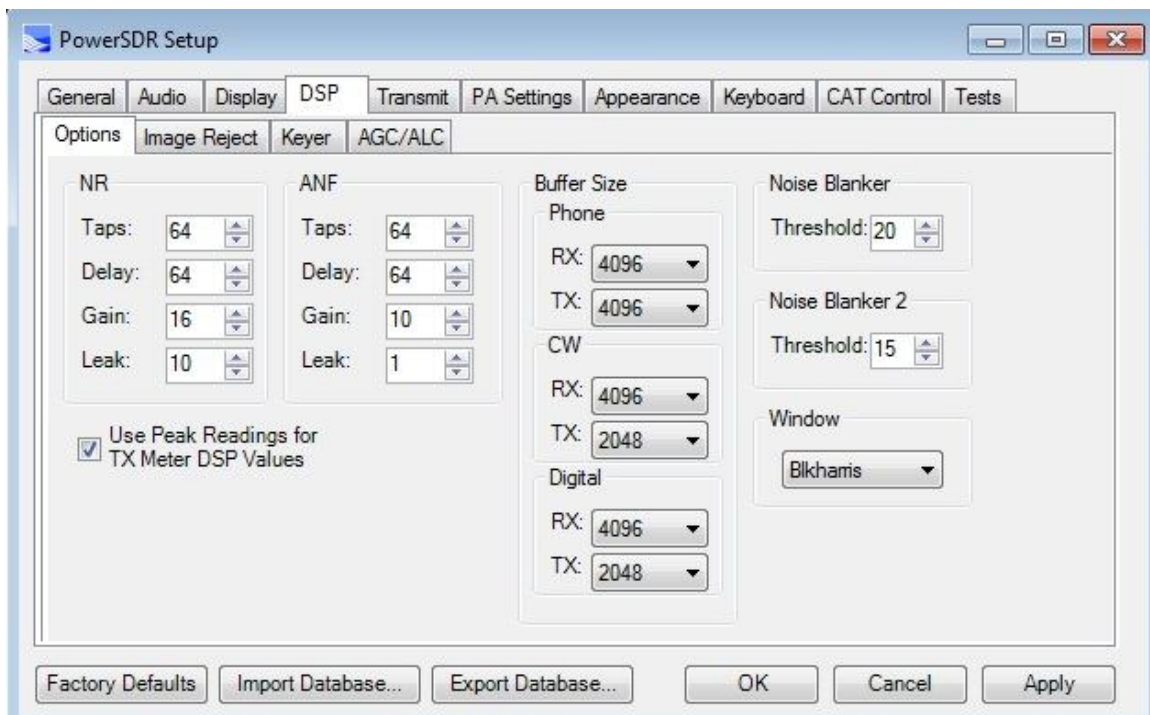


This is the Mic Gain Setting



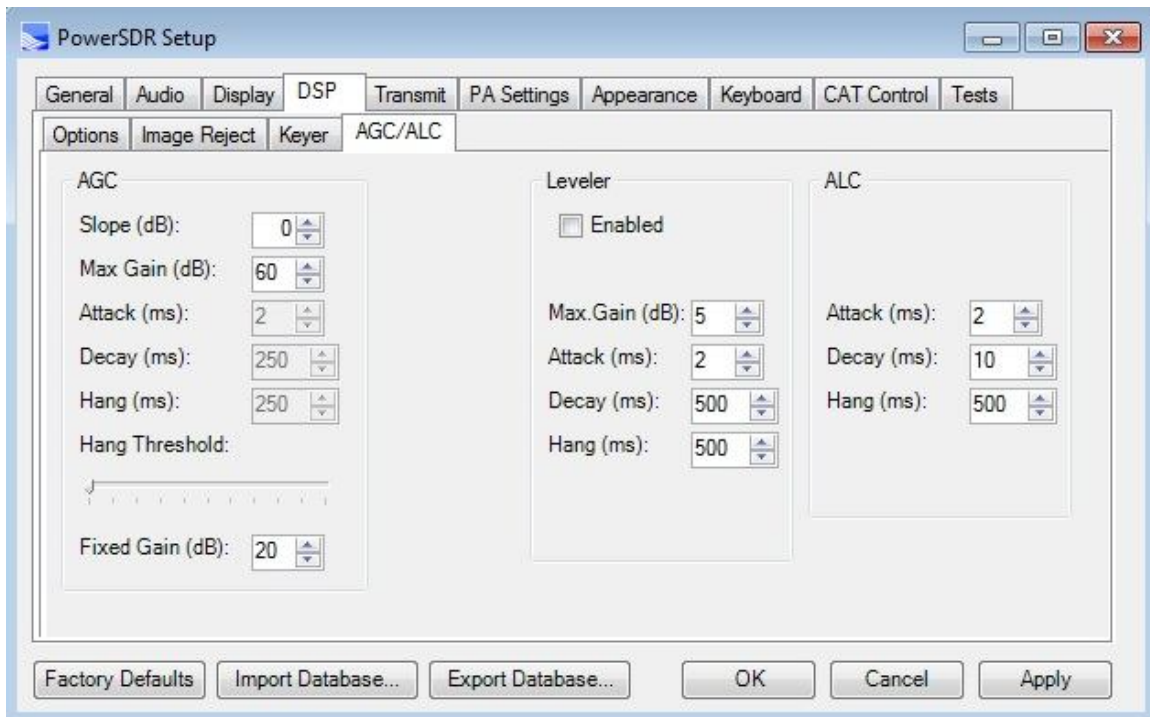
This is the Balanced Line in Slider

You want to try and keep the Balanced line input somewhere in the middle with the mic gain set at the $\frac{1}{2}$ way point which is 35. This seems to give the best input into the radio. I had to use the mic boost in the software otherwise I had the preamp turned up too high and was getting distortion.



These are the DSP Buffer Settings

I read in one of the other Knowledge Base setups that using 4096 on the Phone TX Buffer will smooth out the audio and keep it from getting choppy or distorted. If you have a super fast computer this might not be an issue but it works perfect on my system.



AGC / ALC Settings

There are two schools of thought on these settings, some say to use the leveler and some say not. I don't use the leveler, but if you were to run smaller buffers you may need to use it with some timing changes to smooth out the audio.

This set up works the best for my voice characteristics and what really sounds good to me, your experiences may vary.

If you have any questions or need any help feel free to contact me, my info is good on QRZ.

Craig
W1MSG