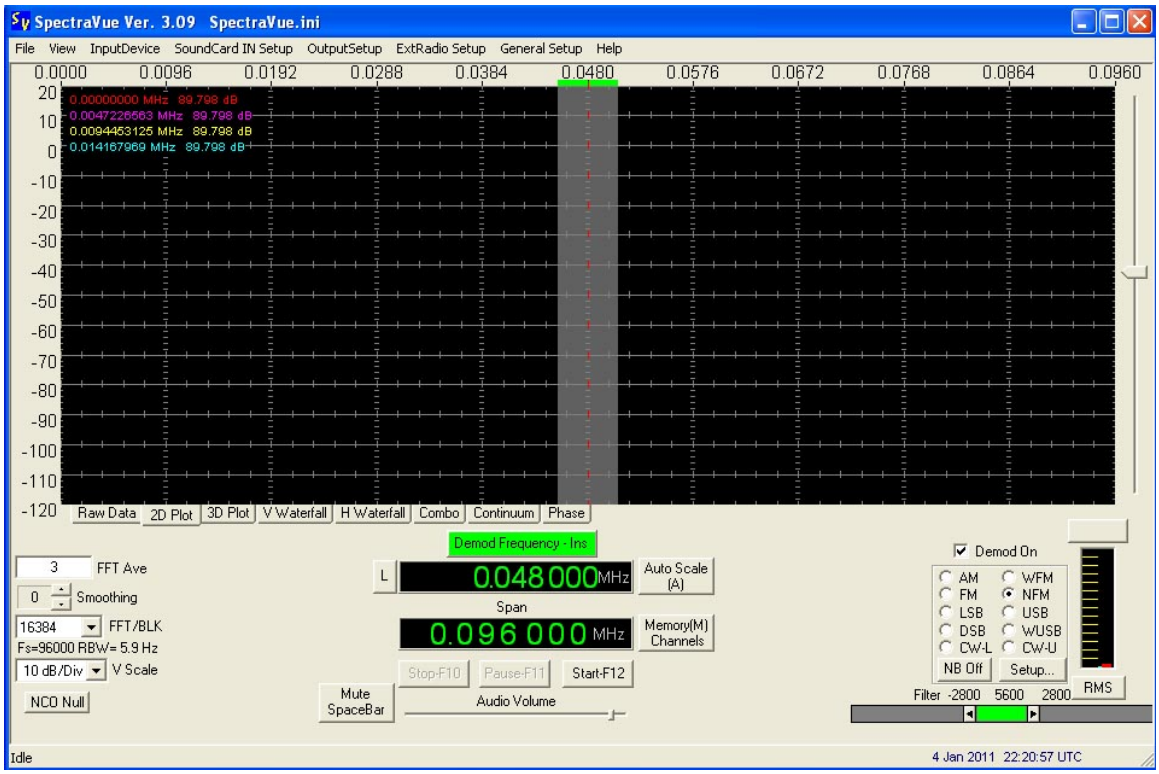
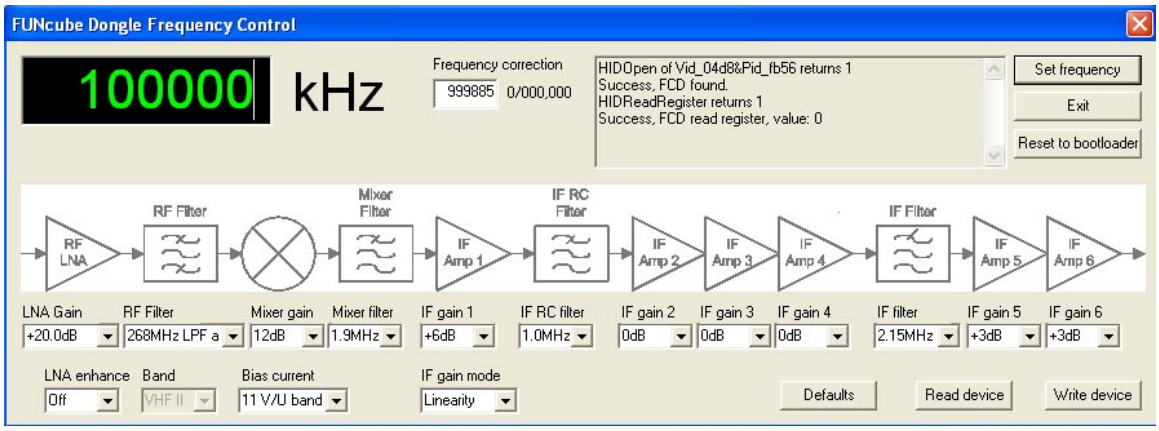
Spectravue Configuration

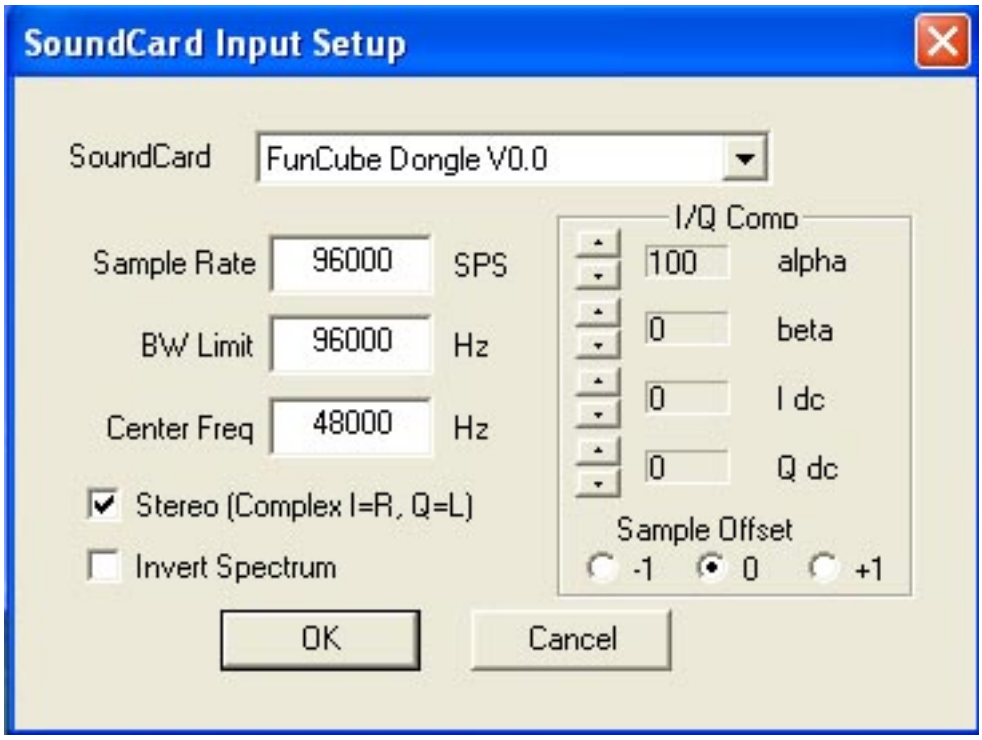
For Use with FCD



The FCD must be connected for it to appear in the Spectravue setup.

It is suggested that the program FCHid be running.
Enter a frequency of 100MHz and click on the “Defaults” button.
FCHid content should appear as shown below. (FCD F/W 18c)





The “Center Freq” may be set to suit you. As shown it results in the scale seen in the first screenshot i.e. 0KHz – 96KHz. If you prefer to have the scale shown as +/- 48KHz of the FCD’s centre frequency then enter 0 in this box.

Remember, a signal at the centre frequency of the FCD as set with the FCD control program is always displayed at the centre of the Spectravue screen.

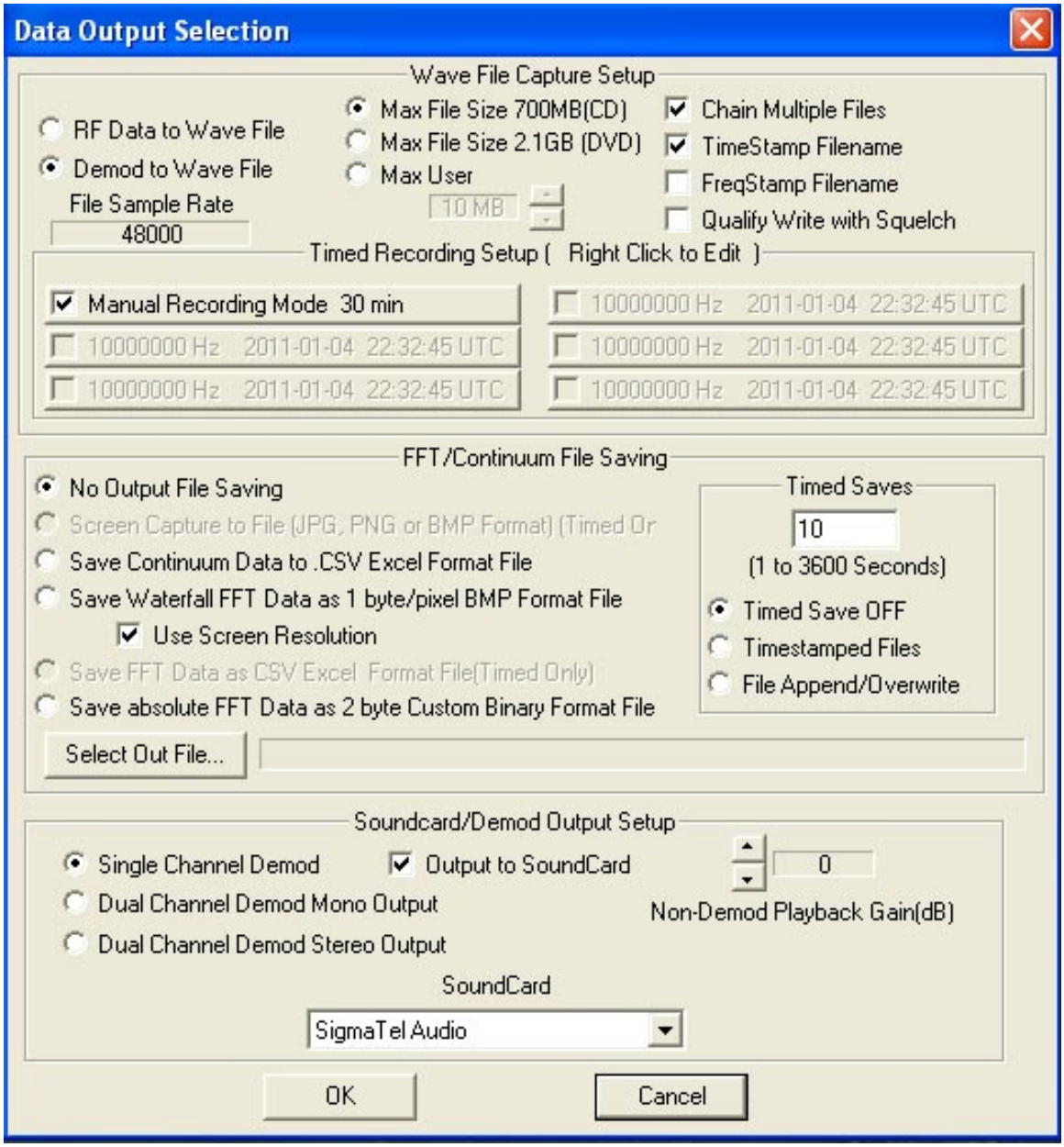
Out of the box there are two tweaks of immediate interest. Firstly there’s the DC offset which you’ll find in the middle of the SDR’s passband (centre hump), and secondly there’s the image rejection. By adjusting these settings, you can null out the DC offset and image signals.

I dc & Q dc adjust the DC offset (centre hump).

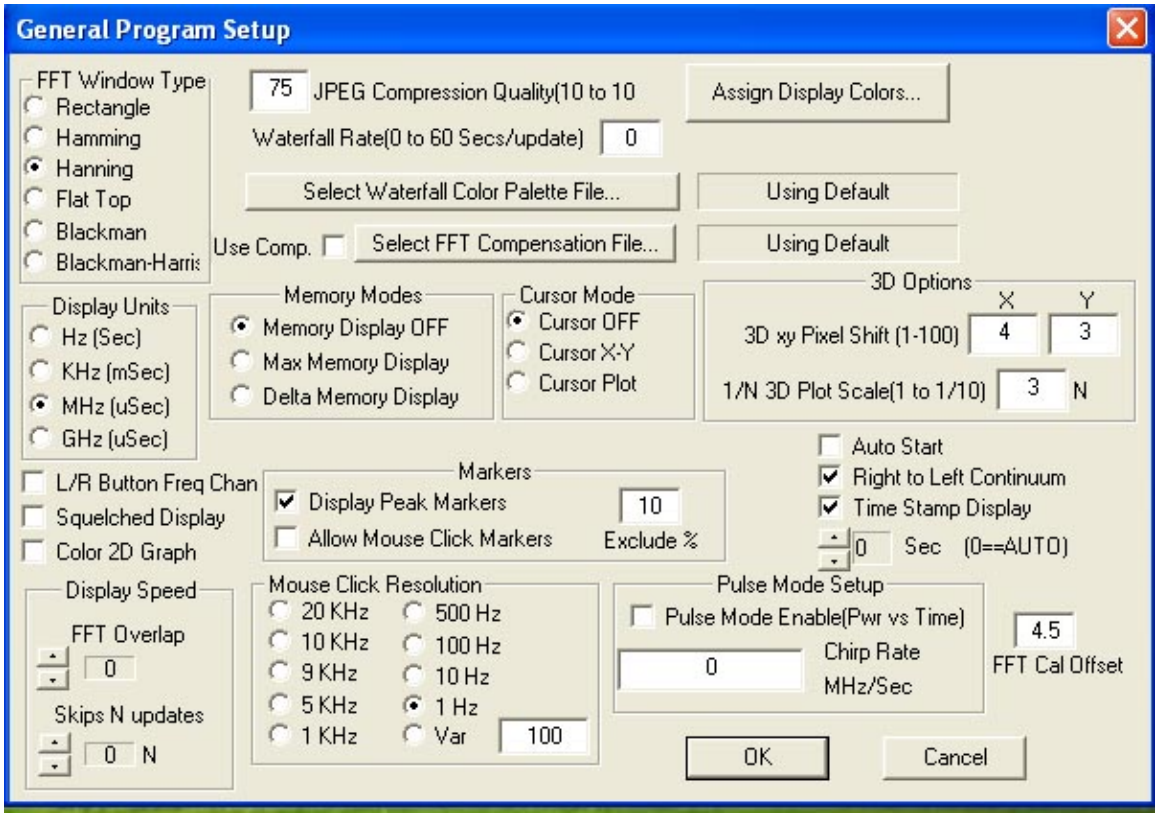
alpha & beta adjust the image rejection.

The precise amount of DC offset and image rejection will vary from unit to unit, and is also frequency and gain specific.

See later in document.

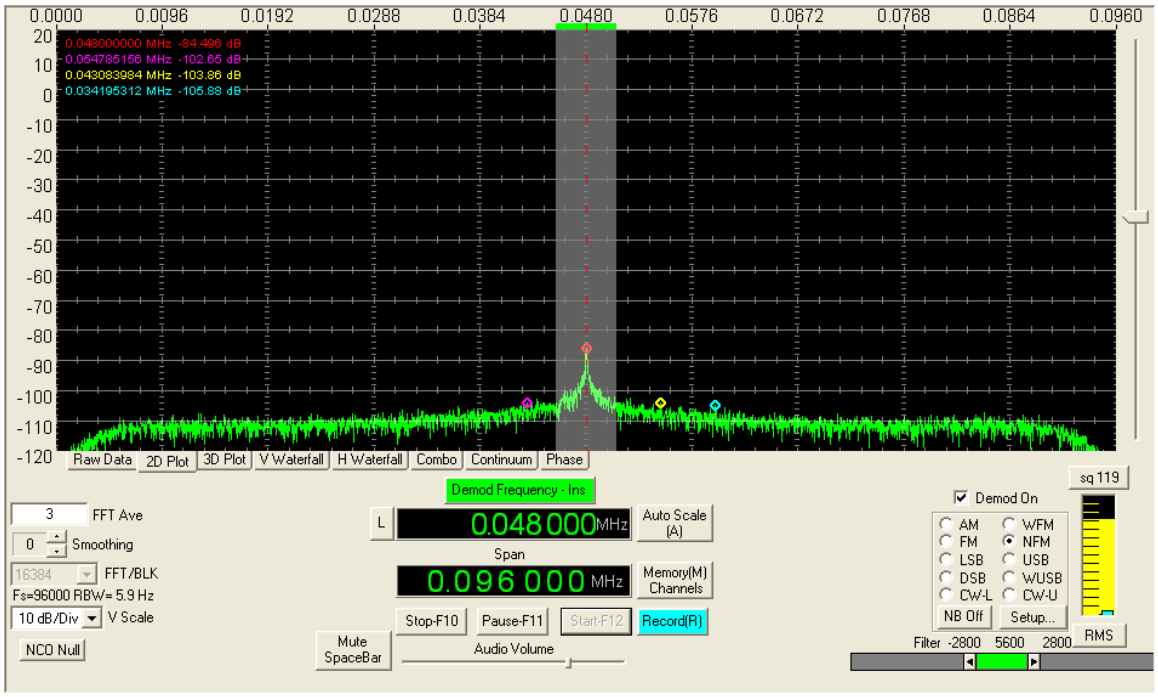


“Sound Card” should contain the name of the sound card used on your system to output the demodulated audio.



That completes the basic configuration.

Clicking “Start-F12” in the main screen should now produce a screen similar to that shown below and noise should be heard from your soundcard.



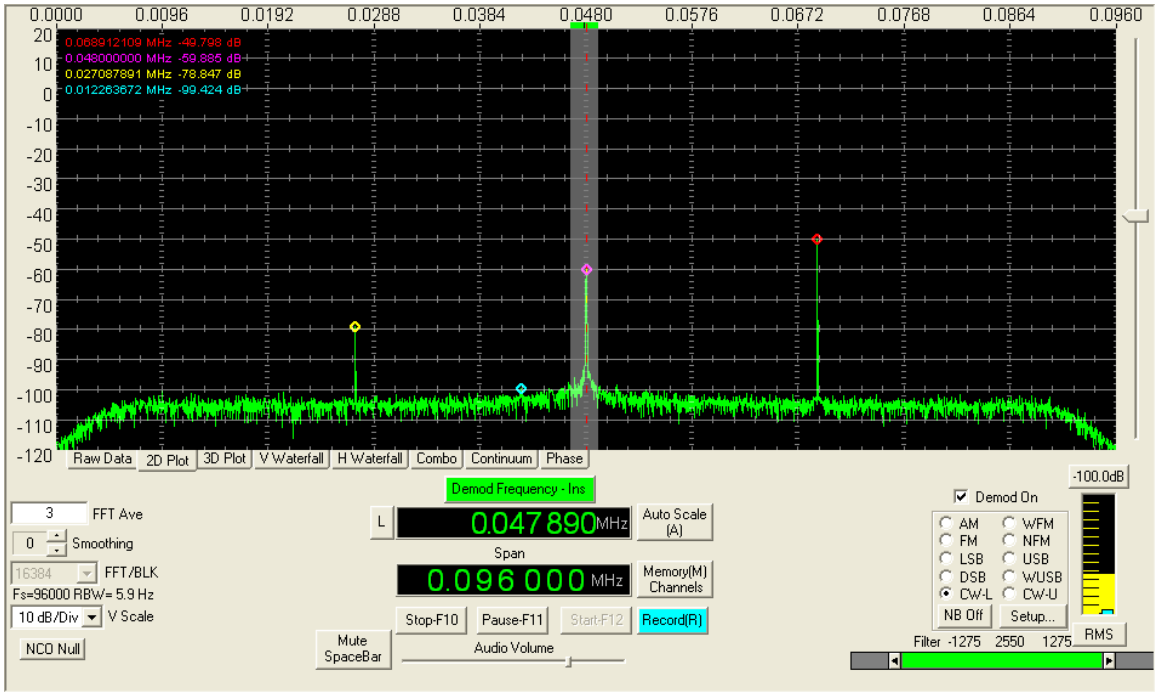
The DC offset can be clearly seen at the centre of the screen and if you have an antenna attached you may see other signals.

If you wish to adjust the DC offset at this stage open the “SoundCard IN Setup” and whilst watching the height of the centre spike juggle the I dc & Q dc figures to minimize it. The two adjustments interact so an amount of experimentation is required. It is suggested that you make this adjustment without an antenna or with a 50R load connected.

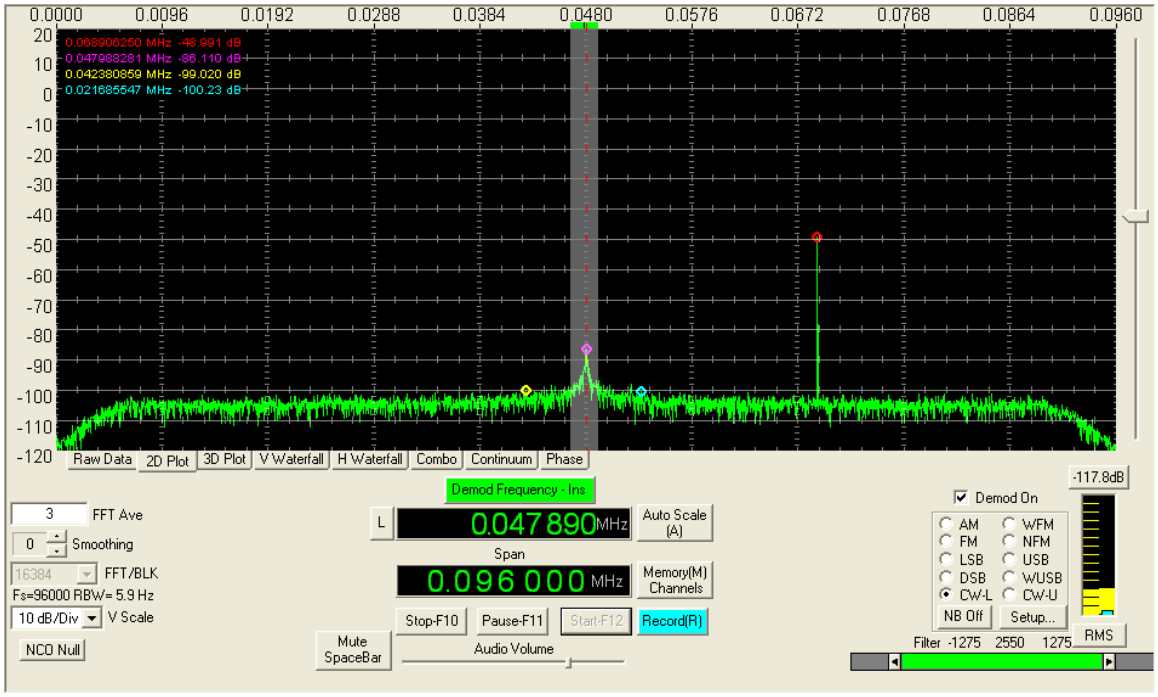
To easily adjust the image rejection a stable signal is required. The procedure is the same as above. Whilst watching the height of the image spike juggle the alpha and beta settings in the “SoundCard IN Setup”.

The following two screen shots show the before and after results of making the above adjustments. For illustration purposes the FCD was set to a centre frequency of 100MHz. The input signal is to the right of the display and was set to 100.020MHz. The input level to the FCD was -100dBm. The image is on the left hand side. Following the adjustments it can be seen that the image has disappeared and the DC offset has been significantly reduced.

Pre Adjustment.



Post Adjustment.



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V1.0