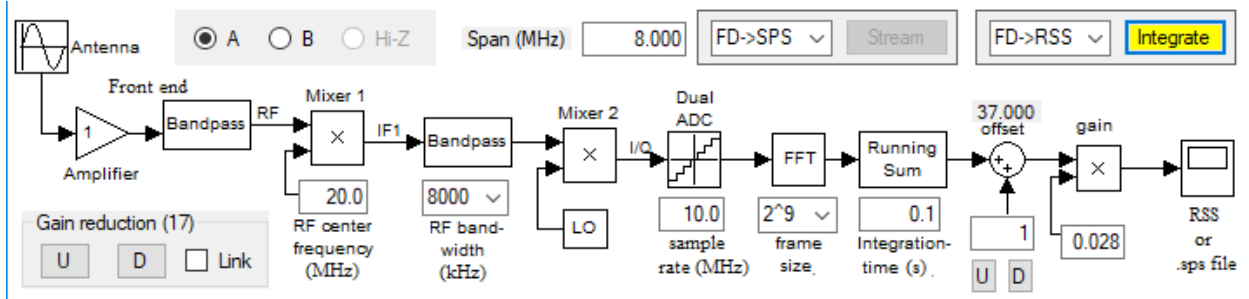


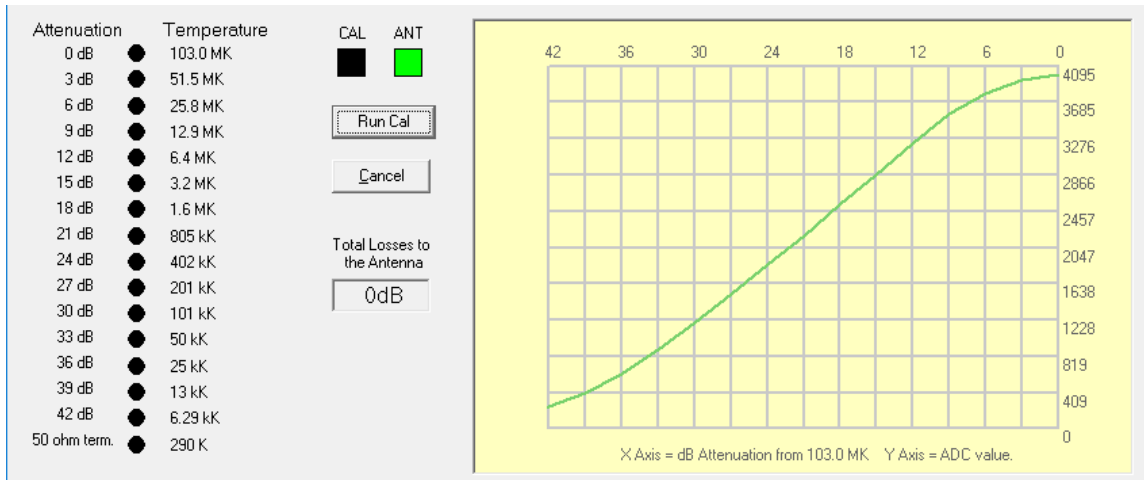
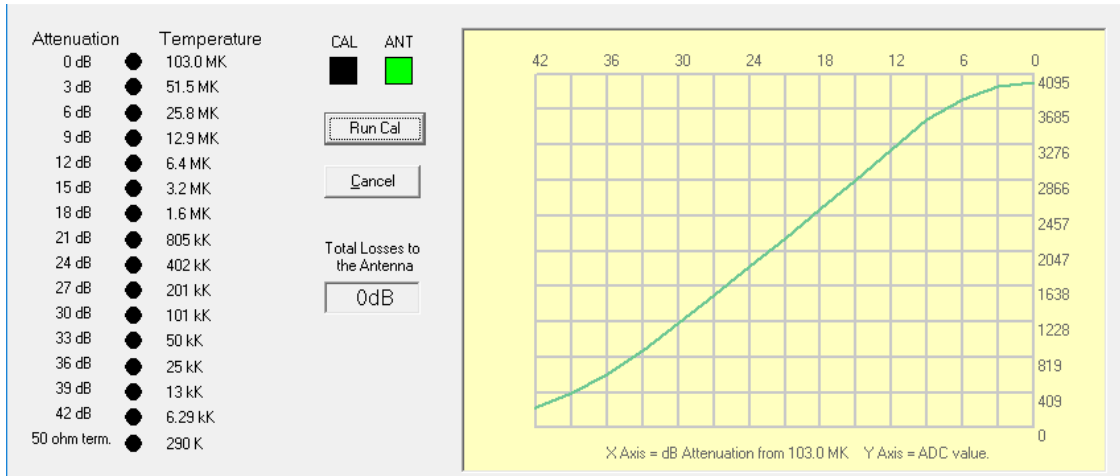
## Comparison of response curves for two SDRPlay RSP1As and an RSP2

R.S. Flagg July 2021

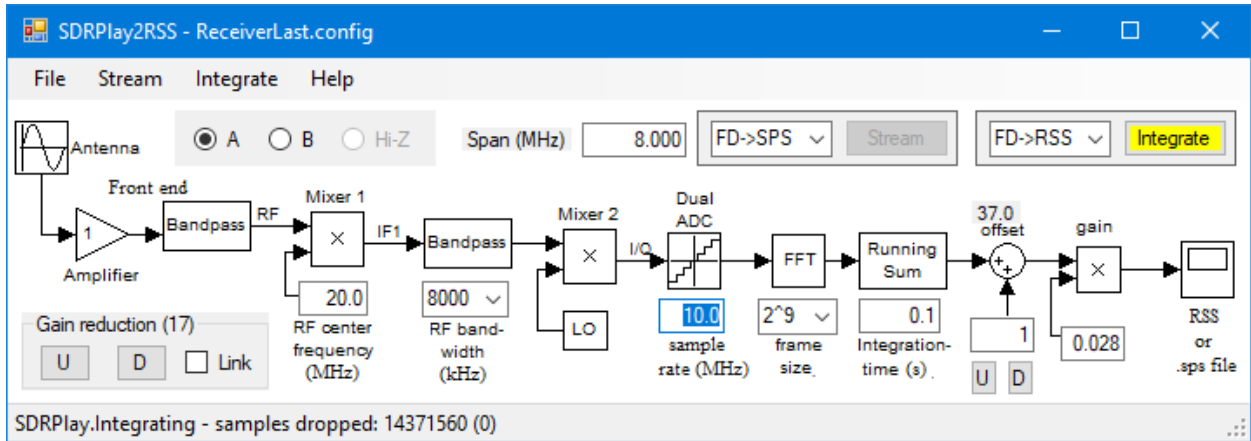
RSS version 2.9.31, SDRPlay2RSS version 1.0.39.0



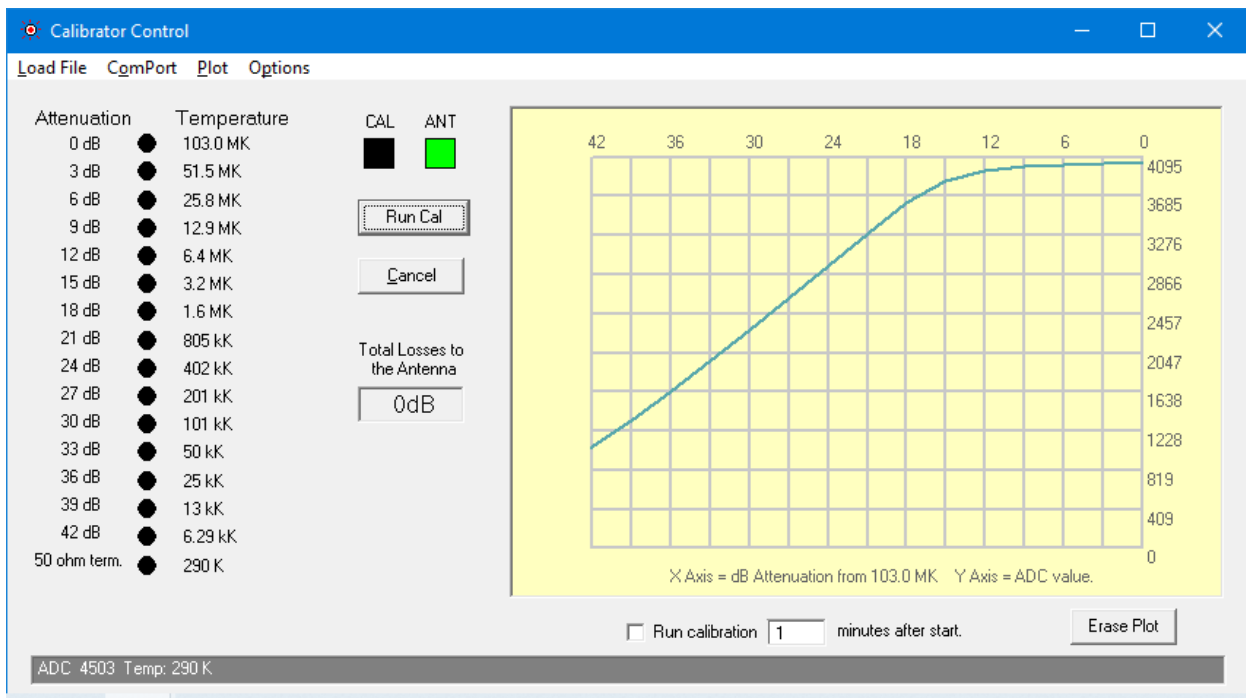
Top Plot SN1803020194, Bottom Plot SN180201C394



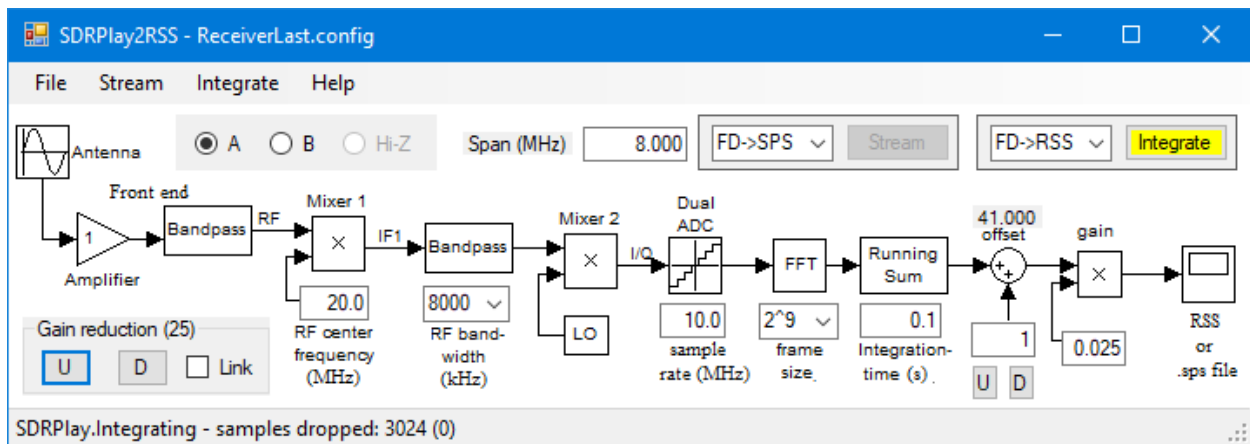
Using the same control settings as run for RSP1A we see a response curve for an RSP2 Pro. The response curve is considerably different with the same control settings.



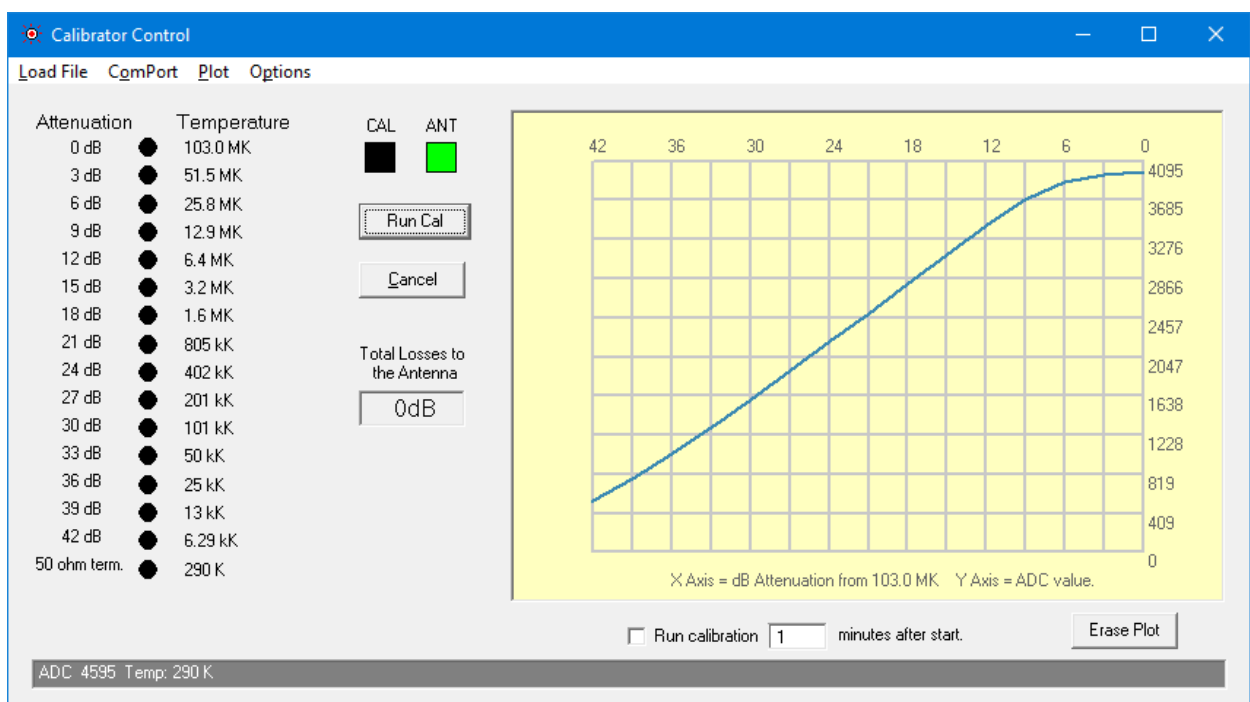
### RSP2 Pro



Changing the control settings for the RSP2 Pro yields a response curve similar to the RSP1A. Note that the Gain reduction is now 25 with an offset of 41 and a gain of 0.025.



RSP2 Pro response curve – note different control settings



Note at the lower left (weak signal) tail of the RSP2 response curve does not tend to flatten out like the RSP1A. This indicates better weak signal response for the RSP2 (lower noise figure).

According to SDRPlay specs the noise figure of the 1A and the 2 vary depending on the setting of the gain slider (in SDRUno). The same effect must occur depending on the setting of the Gain Reduction control in SDRPlay2RSS. At 21 MHz the NF of the 1A varies from 15 to 72 dB while the NF of the 2 varies from 1.6 to 31 dB.

## Conclusions

The SDRPlay 1A and 2 models require different settings in SDRPlay2RSS for optimum dynamic range performance.

Two SDRPlay PSP1A units performed identically for the same control settings in SDRPlay2RSS.