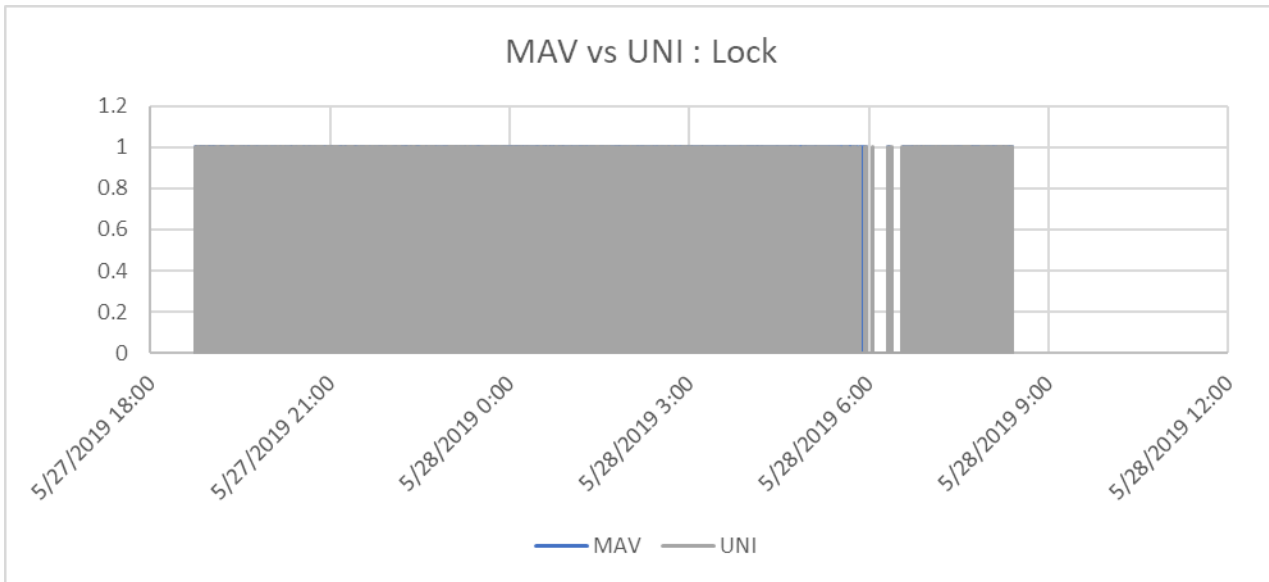


A dual-setup Maverick vs Universal LNB were tested. Temperature logging of the Maverick and Universal LNBs as well as Ambient was performed for this run.

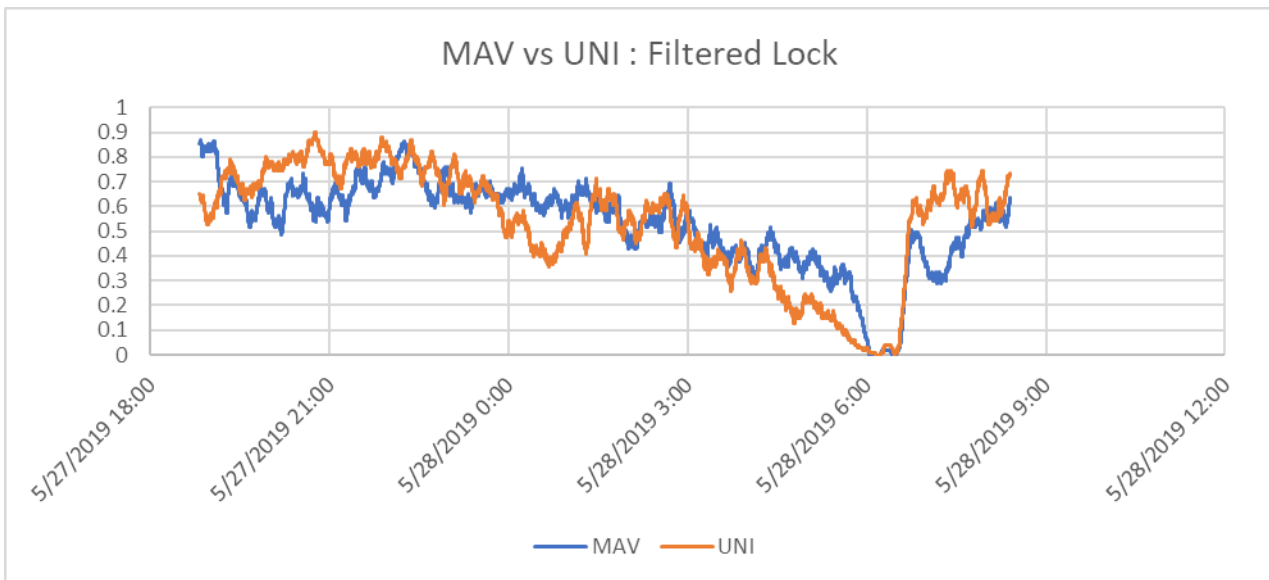
Signal Strength / SNR continues to be an issue overall in this test setup. The bare LNBs are mounted inside a home, pointing out an open window, which has been environmentally sealed with a 2mil plastic sheet. This sheet does not seem to introduce any signal loss on its own during a quick setup test.

LOCK:

Both LNBs had trouble locking throughout the test. Raw plot of LOCK:

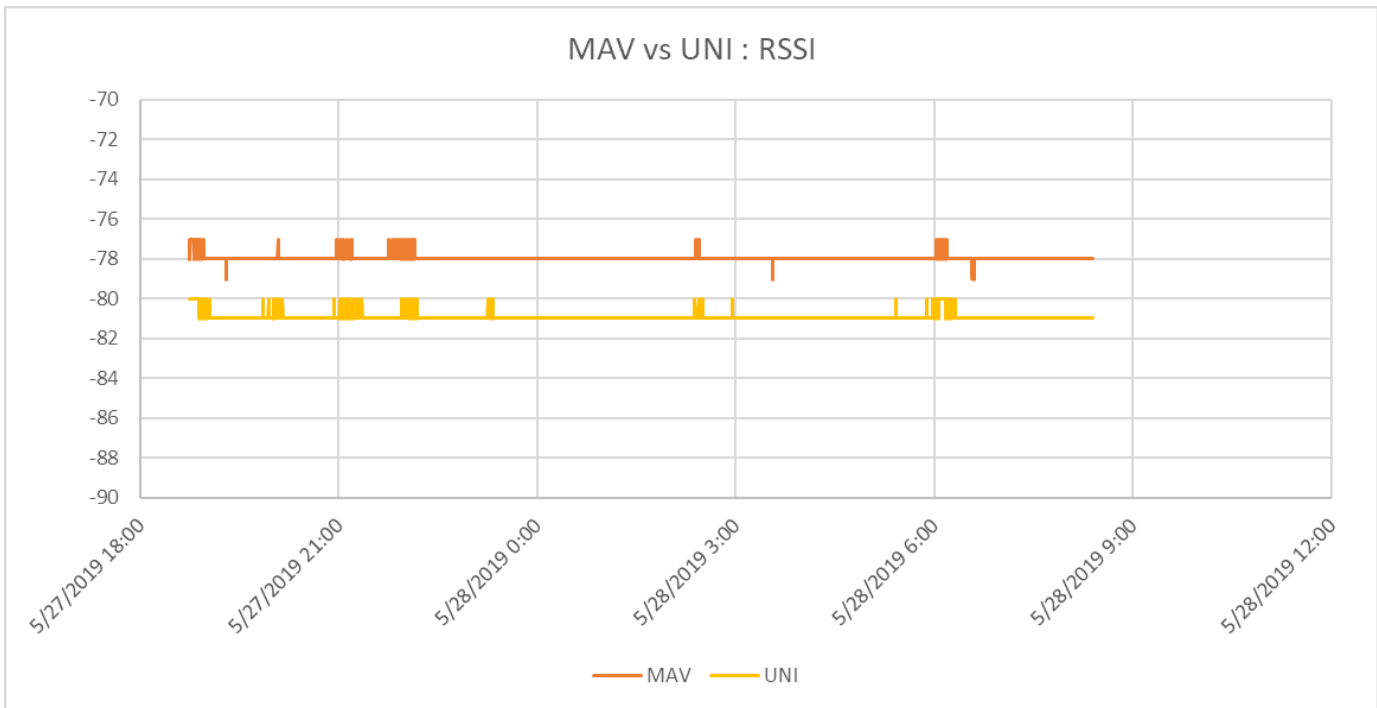


As the raw plot is so noisy as to be useless, a 100-sample sliding average filter was applied, to view trends:

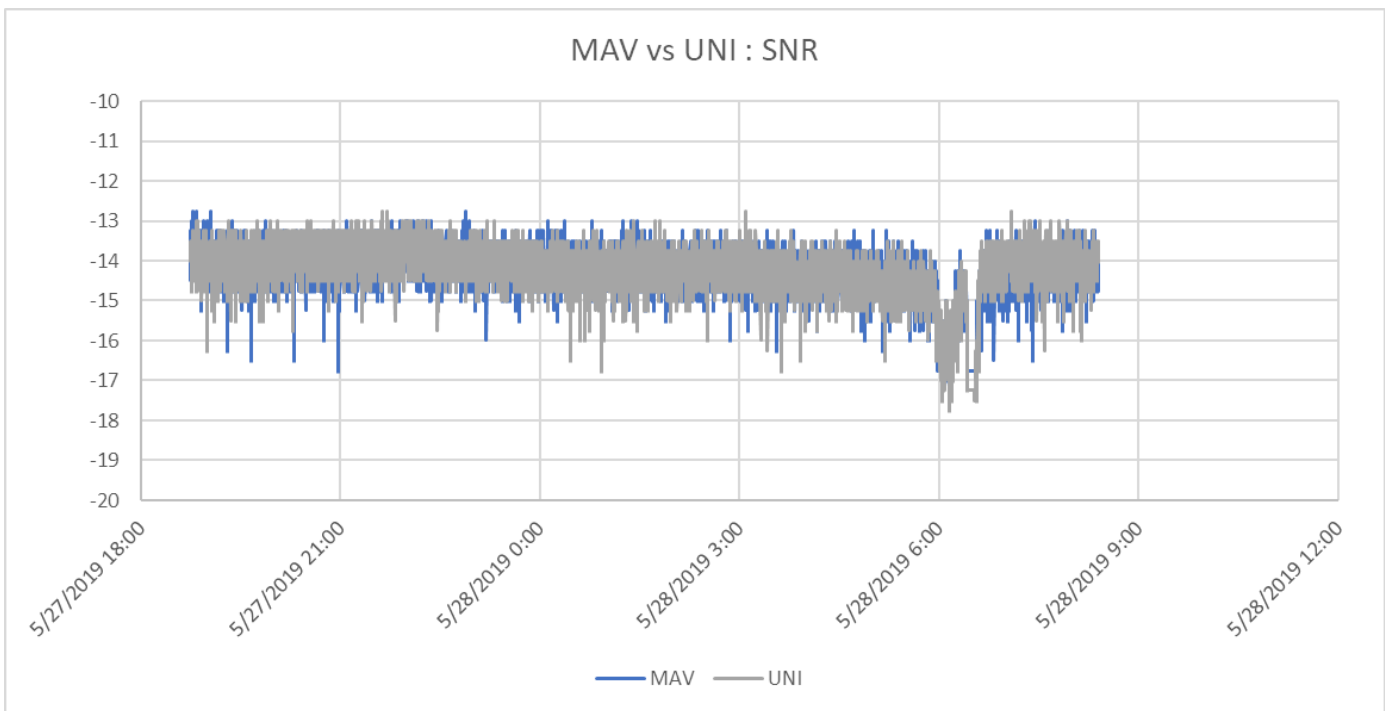


In this view, it appears performance nominally matches.

Next we look at SNR and RSSI:

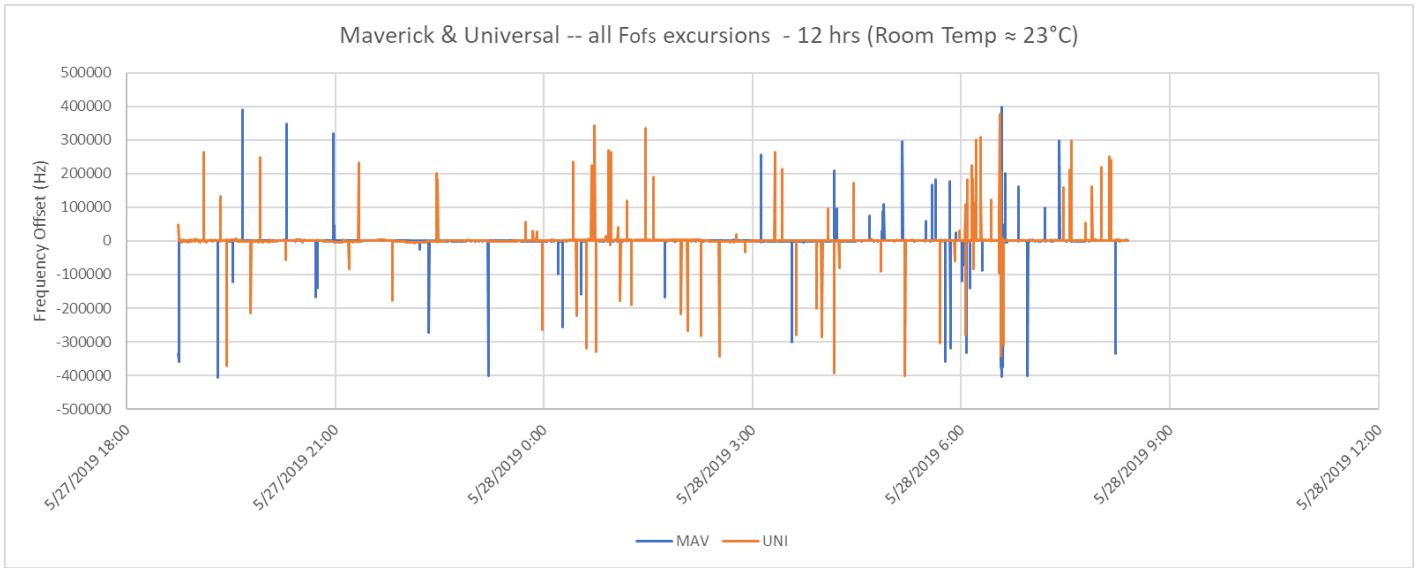


RSSI on the Universal seems consistently 3 dB lower

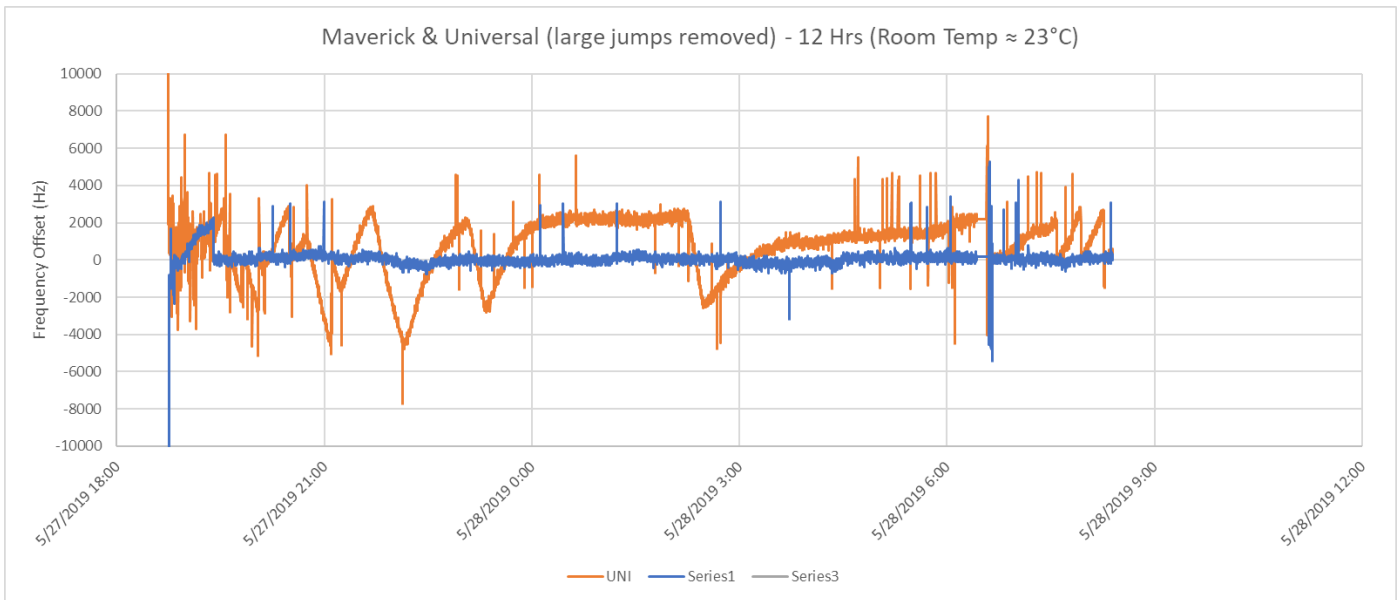


SNR appears comparable between the two models

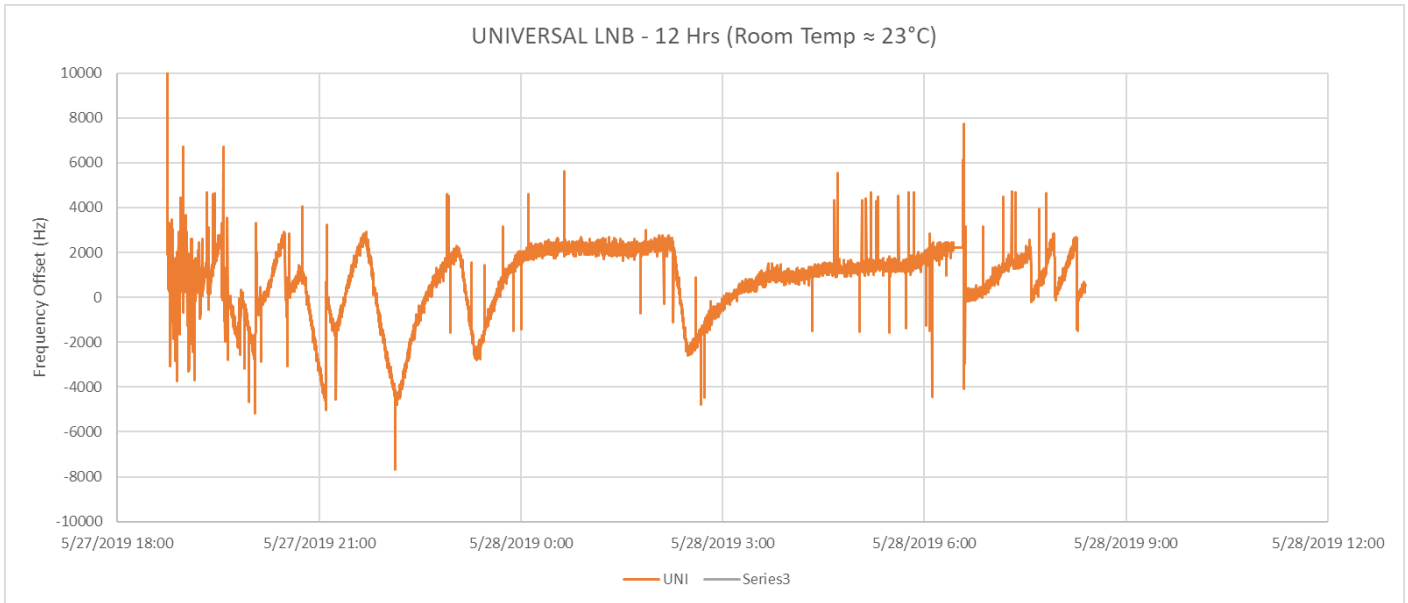
And now, Frequency Offset. Doing a full plot of both LNBS shows sporadic large frequency offset jumps:



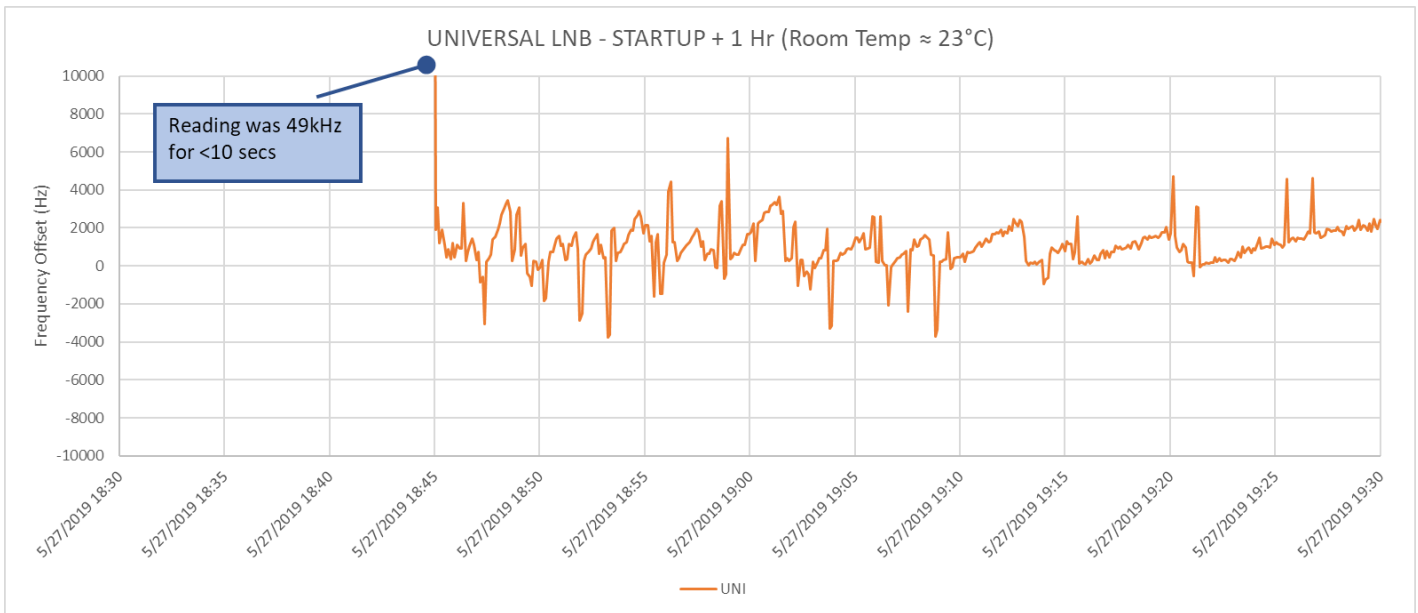
Removing these sporadic steps and zooming in closer on the graph reveals:



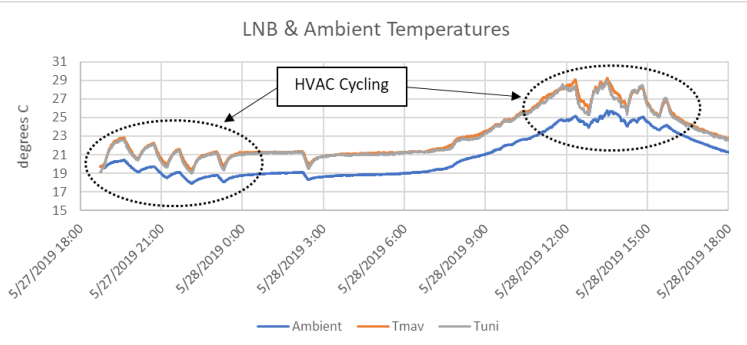
Focusing on the Universal LNB Only, here is the 12 hr plot again:



And finally zooming in on the first hour of the Universal LNB, right at startup:

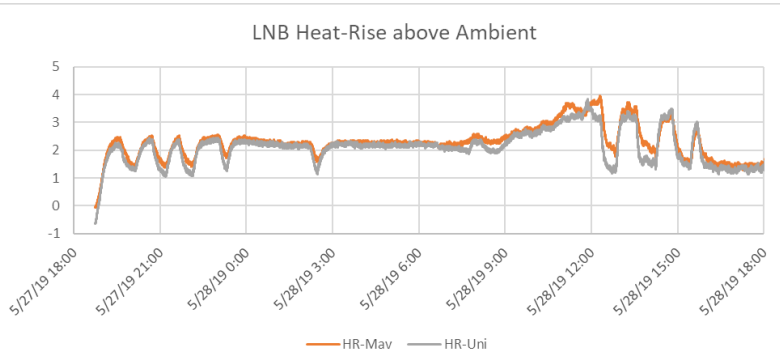


For this run, temperature logging was performed. First, a view of the temps on the two LNBS and Ambient:



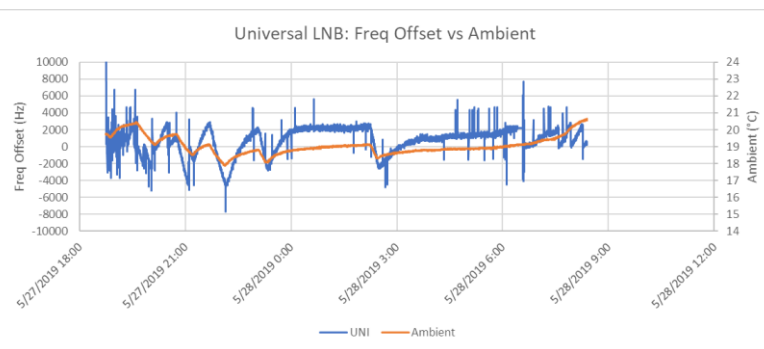
Subtracting out Ambient shows the heat-rise for the LNBS:

Overnight when the HVAC is not cycling probably gives the best picture of the heat-rise of the LNBS, which are both right at 2°C.



And here is Freq Offset vs Ambient:

The frequency offset shifts with temperature, at approximately 0.4 PPM/°C. This seems in line with an uncompensated AT cut xtal (no idea what style the LNB uses however).



Finally, a plot with a steady increase in temperature. Note the frequency offset resets to zero when it approaches 2-3 kHz. This suggests that the data being provided is post-AFC.

