The following is my trick for adjustment of the OCXO Oven Temperature.

First, as Hans stresses start with the trimmer **R21 fully anticlockwise**. As yet I have only built one unit, I was alarmed by the results of adjusting the trimmer by tiny increments and seeing nothing happen whilst monitoring the U3 current with a DVM on the 10 Amp range which gave poor resolution, and SpectrumLab to monitor the signal. Each attempt finally produced thermal runaway, turning the trimmer back to zero didn't stop this, only disconnecting the PSU and letting it cool saved destruction of the heater FET's. So do keep an eye on the current until the correct adjustment is found.

I then decided on the following procedure.

1) Connect a moving coil Ammeter in the U3 with OCXO positive supply rail, I used an Avo 8, 1Amp Range.

2) Switch on the U3 and with **R21 fully anticlockwise** measure the supply current while TXing FSKCW as per Hans instructions.

Now turn **R21 clockwise** to indicate 50mA oven current in addition to the U3 current.

3) Monitor your signal using Argo or SpectrumLab and a nicely warmed up stable RX. The frequency should fall as the oven warms up. At some point it will start to rise again, not because we have reached the point where the frequency has passed through minimum but because the the crystal is still on a steep section of its characteristic curve and the oven temperature is regulating.

4) Turn **R21 clockwise** to increase the current by 5mA and observe the result.

After the fall and rise, adjust **R21 clockwise** again for another increase of 5mA and observe again.
Repeat the procedure until the frequency rises instead of falls.

Below see **ocxo_adjust.jpg**. Each downward fall and following rise is the result of an adjustment.
At the point when the frequency rises instead of falls after the current increase adjustment, that is the time to back off **R21 anticlockwise** slightly.
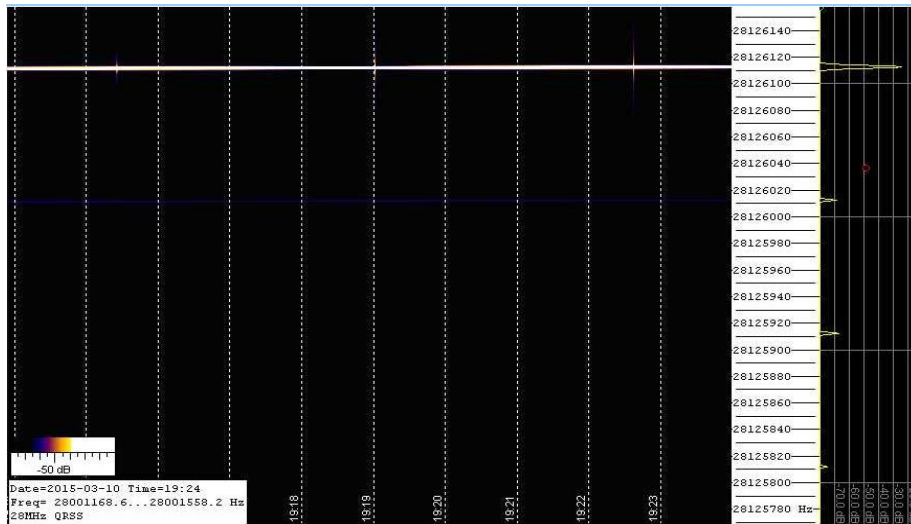This point corresponds to the lowest frequency seen.
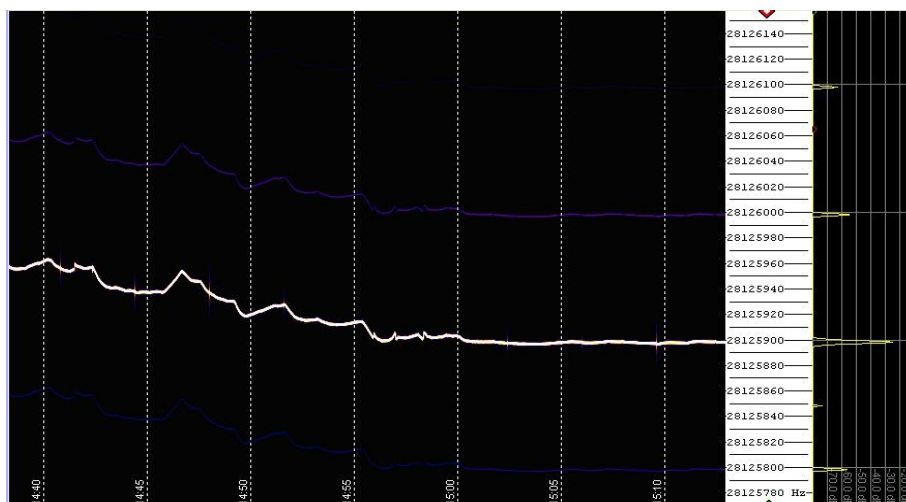
Below see **ocxo_adjusted.jpg** the first 35mins after adjustment.
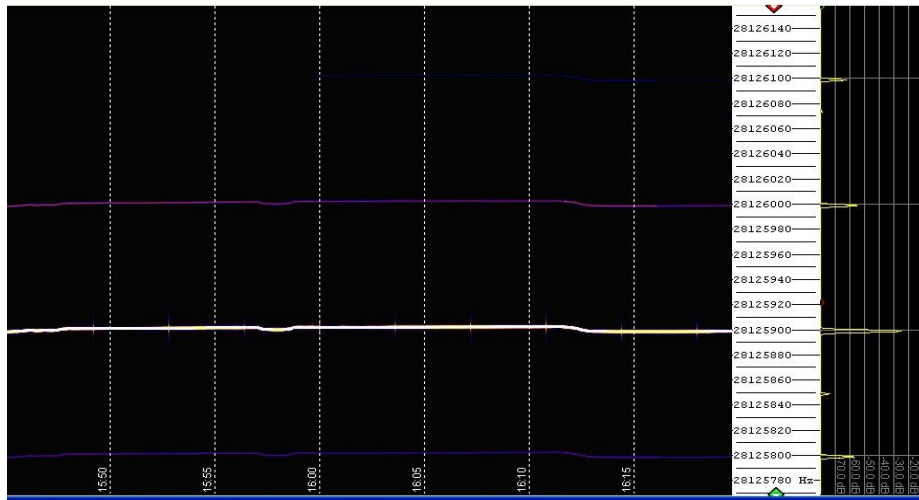
Below see **ocxo_adjusted2.jpg** after U3 calibration has corrected the output frequency and the OCXO Synth is on long term test.

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