How to Tuning to your Central Frequency (Fo)

(1)The Tuning Steps:

- 1. Preparing the PCB + SMA Connector as Test Fixture.
- 2. Processing the Calibration test as attached drawing.
- 3. Turning the both right & left screw with the same direction, distance, angle and the numbers of times. The curve will shift from the original Center Frequency to the one you want
- 4. Tuning all screws to left direction simultaneously in the same distance, and then the Fo would move to high frequency.
- 5. Tuning all screws to right direction simultaneously in the same distance, and then the Fo would move to low frequency



Tuning all screws to left direction simultaneously in the same distance so Fo would move to high frequency

Tune all screws to right direction simultaneously in the same distance so Fo would move to low frequency

(2Demo example: (Double Tuning Filter):

You can drive both right screw & left screw toward left direction with each 0.5mm simultaneous, until you saw the NA reached at 895MHz. When the performance S11 & S22 is the best & Return Loss is the biggest. A perfect performance is finished. (N/A: Network Analyzer)



Please pay attention :

As you know, processing "how to tune the Filter" to match circuit on PCB is very important after the Helical Filter has been installed. The lamped-element of match circuit is always less tolerance. In order to match completely, you need to make adjustment by tuning the Filter.

Note:

If you tune only one screw to do the match adjustment, it is "incorrect". Filters will loss its function by your incorrect tuning method.