

RIGOL
Beyond Measure



10MHz Clock Frequency Adjustment: DSA-815

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Solution: The 10MHz oscillator on the DSA-815 Series can have an offset that is dependent on aging and temperature. Here is a method for adjusting the reference DAC and minimizing the offset over short time periods and temperature shifts.

NOTE: When entering the calibration and service menus, you can make adjustments to the instrument that can drastically effect it's accuracy and dependability. Make these adjustments at your own risk!

- 1) Warm up instruments to manufacturers specifications.
- 2) Connect the DSA Internal Clock output to a high accuracy counter, such as a Rigol DG4000 Series Generator. The Counter will be used to monitor the output frequency of the clock as we make adjustments.
- 3) On the DSA, press: TRACE > TG > MARKER FCTN > MEAS SETUP
> SYSTEM > PRINT SETUP > STORAGE
- 4) There should be an indication of entering into "Maintenance mode":

■ Welcome to Maintenance Mode.



- 5) Press System > Down Arrow (Lower Right-Hand-Side of display)
> Service > Calibration
- 6) Record the Ref DAC value.
- 7) Adjust the Ref DAC value a slight bit (100 counts or so) and monitor the counter.
- 8) Adjust the value until the 10MHz is in the right range.