

# PSA Test and Adjustment Software FAQ's

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## Table of Contents

[How long does it take to run the full suite of Performance Tests on an E4440A?](#)

[How can I view the YTF Filter Shape?](#)

[How do I get metrology data into the equipment tables?](#)

[Abs Amp, Scale Fidelity, Attenuator Accy Test Uncertainties are too high!](#)

## How long does it take to run the full suite of Performance Tests on an E4440A?

The total test time is about 4 hours. Option B7J adds another 30 minutes to the total.

## How can I view the YTF Filter Shape?

Use the following procedure to park the PSA swept LO. The YTF will continue to sweep, so the filter shape drawn on screen will be the YTF filter as it sweeps past the fixed LO.

- 1) Tune the PSA to the desired center frequency in the 3 GHz to 50 GHz range (depending on model).
- 2) Place the PSA in Zero Span with the following button sequence, Span->0->Hz.
- 3) Place the PSA in single sweep by pressing the Single button.
- 4) Park the PSA Swept LO with the following GPIB command, "DIAG:PARK:LO 1".
- 5) Return the PSA to continuous sweep by pressing, Sweep->Sweep->Cont.
- 6) The YTF bandwidth is about 30 MHz, so set the PSA span to 60 MHz to view the filter shape.
- 7) To return the YTF to normal operation send the following GPIB command, "DIAG:PARK:LO 0".

**Note:** If the Span in step 6 is set wide enough to overlap a band crossing the PSA will revert to normal operation.

## How do I get metrology data into the equipment tables?

The 8494/8496G and the Power sensors require metrology data to be entered. The following process will gain access to the calibration tables:

Click on **Admin**  
**Log In**  
**Configure Test Stations**  
Click on **Device**  
**Edit Cal Data**

## Abs Amp, Scale Fidelity, Attenuator Accy Test Uncertainties are too high!

The test uncertainties are larger than the test specification. Use this information to correct the problem. It will work for all three tests.

The TME software defaults the 8494/8496G VSWR to the published VSWR of 1.5:1 (Rho = .2). Mismatch uncertainty is a key contributor in this test. The test is performed at 50 MHz, and at this frequency the attenuator match is the DC resistance of the internal pad. The pad is a 50 Ohm resistor with a +/- 1 Ohm tolerance. This translates to a Rho of  $(51-50)/(51+50) = .0099$ . Manufacturing test data suggests that Rho = .0099 is appropriate at 50 MHz. Perform the following steps to change the values;

Click on **Admin**  
**Log In**  
**Configure Test Stations**  
Click on **Device**  
**Edit Cal Data**  
**Enter Cal Data**  
Enter **0.0099** in the column labeled "**Refl Size**"