# E4402B-18 <u>SERVICE NOTE</u>

Supersedes: None

### E4402B ESA Series Spectrum Analyzers

Serial Numbers: All

An error message occurs during the 3 GHz RF Assembly Adjustment portion of the TME LO Amplitude Adjustment test on the instruments which have certain vintages of the ESA RF assembly.

Parts Required:P/NDescription

Qty.

None

### ADMINISTRATIVE INFORMATION

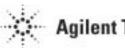
SERVICE NOTE CLASSIFICATION:

## **INFORMATION ONLY**

AUTHOR: DC PRODUCT LINE: 12

ADDITIONAL INFORMATION:

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#### Situation:

If the ESA being adjusted has a 50 ohm, 3 GHz input part number of E4403-60100 or E4403-60107, the 3 GHz RF Assembly Adjustment portion of the LO Amplitude Adjustment test will fail. The error message on the PC looks like:

Test Setu	ıp Error
٩	The connection between the E4407B and the E4419A is incorrect.
	Press 'Retry' to display the setup and continue.
	ОК

The failure is occurring because a DAC was recently removed from the RF assembly board and replaced with a fixed gain amplifier.

#### Solution/Action:

Before doing the LO Amplitude adjustment, press [System], {More 1 of 3}, {Show Hardware} on your analyzer. Look for "50 ohm 3 GHz Input" assembly name. If the part number listed is E4403-60100 or E4403-60107, skip the 3 GHz RF Assembly LO Adjustment portion under the LO Amplitude Adjustment test. Perform all the other adjustments under the LO Amplitude Adjustment except this one.

After all the portions except the 3 GHz RF Assembly LO Adjustment of the LO Amplitude Adjustment test are run, when you click on "Finish" Test, the following message appears on the screen.

Confirm Storage of New Values				
The test FAILED due to the following reason(s):				
* One or more test setups were NOT verified.				
*** WARNING ***				
The adjustment FAILED, storing the results could cause analyzer performance to FAIL specifications.				
Store the new correction values?				
Press 'Yes' to store the new values Press 'No' to re-store the original values				
Yes No				

This error message occurs because the 3 GHz RF Assembly Adjustment portion of the LO Amplitude Adjustment test was not performed. Click "Yes" to store the new values. After you click yes, the following message appears on the PC screen:

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Test Sequencing					
LO Amplitude Adjustment has exited with a result of FAIL					
How would you like to proceed?					
Rerun the test Run next test Abort Sequence					
This dialog will close in 5 seconds. Press this button to stop the clock					

Click on "Run Next test" or just wait for 5 seconds, depending on the tests you are running. After 5 seconds or after all the other adjustment tests are performed, here is what the adjustment test result will look like:

🖬 Agilent N7800A Test Management Environment Software							
Eile View Licenses Administration Help							
Order Information Run Tests Test Reports							
Order Number: 1-ESA_LO_Adjustment		Model: E440	7B				
Serial Number: US45100000		Unique Identifier:					
Sessions							
Session Name: As Received   New Session  Rename Session							
Test Plan Information							
Test Plan: Adjustment	▼ Varian	t: Normal	Test Plan Help				
Results View:	🚽 Test S	tation: Station	Select Equipment				
Test Name	Result	Date/Time	Test Context				
IOMHz Reference Frequency Adjustment         IF Amplitude Adjustment         Reference Amplitude Adjustment         ✓       LO Amplitude Adjustment         ✓       FAIL         YTF Adjustment       FAIL         ✓       Frequency Response Low Band Adjustment         ✓       Frequency Response High Band Adjustment		01/29/2007 10:13:19.	Operator:     Dipti       Temperature:     24.3       Humidity:     55       Line Frequency:     60       Hz				
			Run Control Pause between tests Pause on test point fail Start				

The LO Amplitude adjustment test result appears as Fail because the 3 GHz RF Assembly Adjustment portion of the LO Amplitude Adjustment test was not performed. Ignore the fail message and continue with your tests.

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The software engineering team is working on getting the TME software updated to remedy this situation. The updated version will be ready by July 2007. Check your TME software for updates during that time frame.