

INFORMATION ONLY

4263B-10

S E R V I C E N O T E

Supersedes:
NONE

4263B LCR Meter

Serial Numbers: ALL

Test Signal Frequency Accuracy Performance Verification enhancement

Parts Required:

PN/ Product Model	Description	Qty.
53181A/ 53132A	Frequency Counter	1
04294-61002/ 04284-65007	Interface Box	1
8120-1839	61 cm BNC(m) – BNC(m) Cable	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:	
INFORMATION ONLY	
X Calibration Required [] Calibration NOT Required	PRODUCT LINE: WN AUTHOR: LS
ADDITIONAL INFORMATION: This service notes communicates the enhancement on test signal frequency accuracy performance verification in resolving the "Overflow" error on 100 Hz and 120 Hz test frequency.	

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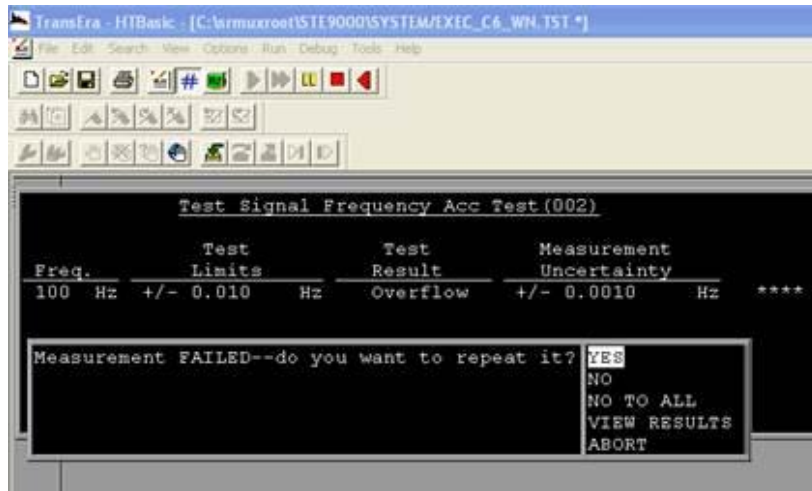
February 25, 2014

Rev. 22



Situation:

Some 4263B might experience the failure on Test Signal Frequency Accuracy performance verification on 100Hz and 120Hz with “Overflow” error message displayed on test program.

**Solution/Action:**

This is not a valid measurement failure and it is related to the DC-DC converter's switching frequency. It is difficult to 100% eliminate the impact of the switching frequency by enhancing the design of DC-DC converter.

Requirement: Please download and install the revised STE Cal application HP4263A_B (Rev. A.03.01).

4263B Test Signal Frequency Accuracy Performance Verification is revised and enhanced. No changes in 4263B test specification.

1. ETE Frequency counter input channel 100kHz Low Pass Filter is turned on. By having frequency counter turned on the 100 kHz filter, the impact on switching frequency can be significantly reduced if not eliminated. 4263B STE Cal application has been enhanced and revised in automatically enabling on the 100 kHz filter of frequency counter during the test.
2. Interface box is introduced for the connection between ETE counter input channel and UUT Test signal output in better improving the grounding.

The 4263B's test signal frequency is measured with a frequency counter. No changes in 4263B test specifications.

Procedure:

1. Reset the 4263B.
2. Set up the equipment as shown in figure 1-1.
Note: Interface box (*new*) is required in connecting the 4263B to Frequency Counter as follows.

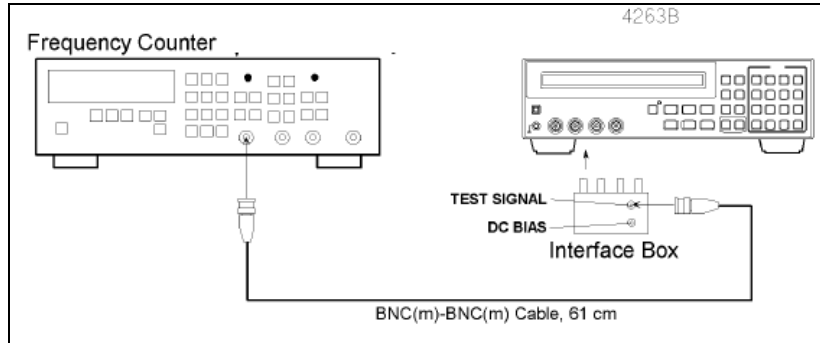




Figure 1-1: Test Signal Frequency Accuracy Test Setup

3. Set the test signal frequency to 100Hz using .
4. Record the frequency counter reading on the calculation sheet.
5. Calculate the test result accordingly to the calculation sheet, and record the result into performance test record.
6. Press  to change the test signal frequency, and perform the test for all the frequencies settings listed in Table 1-1.

Test Signal Frequency
100 Hz
120 Hz
1 kHz
10 kHz
20 kHz ¹
100 kHz

¹ Option 002 only.

The enhanced cal. procedures have been implemented in 4263B STE cal/ performance verification software Rev. A.03.01

Revision History:

Revision Number	Date	Author	Reason For Change
1.0	Feb 24, 2014	LS	As published