N4010A-09

S E R V I C E N O T E

Supersedes:
NONE

N4010A Wireless Connectivity Test Set

Serial Numbers: All Units

Firmware Defect May Affect The N4010A Noise Floor

Parts Required:

P/N	Description	Qty.
NONE		

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION RECOMMENDED

ACTION CATEGORY:	X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS LABOR: 0.5 Hours	
LOCATION CATEGORY:	X CUSTOMER INSTALLABLE [ ] ON-SITE [ ] SERVICE CENTER [ ] CHANNEL PARTNER	SERVICE INVENTORY: [ ] RETURN [ ] SCRAP [ ] SEE TEXT	USED PARTS: [ ] RETURN [ ] SCRAP [ ] SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE		NO CHARGE AVAILABLE UNTIL: 06-AUG-2009	
AUTHOR: FC		PRODUCT LINE: PN	
ADDITIONAL INFORMATION:			

August 6, 2008

Agilent Technologies

Situation:

The noise floor of the N4010A Wireless Connectivity Test Set must be lower than that of the device being measured. For example, the noise floor of an 802.11b WLAN device should be around -60dBm; the N4010A noise floor must be lower than this to ensure measurements are not clipped or distorted.

A firmware defect has been found that may cause the noise floor of the N4010A to shift by as much as +30dB; when this happens the instrument will fail measurements such as spectral mask, even on a good device. This defect is present in all firmware revisions prior to A.05.03.10.

Please note that this defect will not cause the N4010A to pass a faulty device.

Solution/Action:

This firmware defect does not affect all units. Even if the defect is present, it is triggered by an interaction with the N4010A hardware, and slight variations between instruments may prevent the noise floor fault from ever occurring.

The following test can be used to check whether or not the noise floor fault is present:

1. Connect the N4010A to an 802.11b WLAN device, and configure the device to transmit a repeated signal.

2. Launch the N4010A 'Virtual Front Panel' software; create a connection between the software and the N4010A.

3. Select the 'Instrument Control' tab; auto-range & set the power level for an 802.11b signal.

4. Select the 'Spectral Mask' tab; select 'Format 11b', 'Width 66MHz', and click on 'Run Once'.

5. If the spectral mask result is similar to Figure 1, then the fault is not present in this instrument.

6. If the spectral mask result is similar to Figure 2, then the fault is present in this instrument.

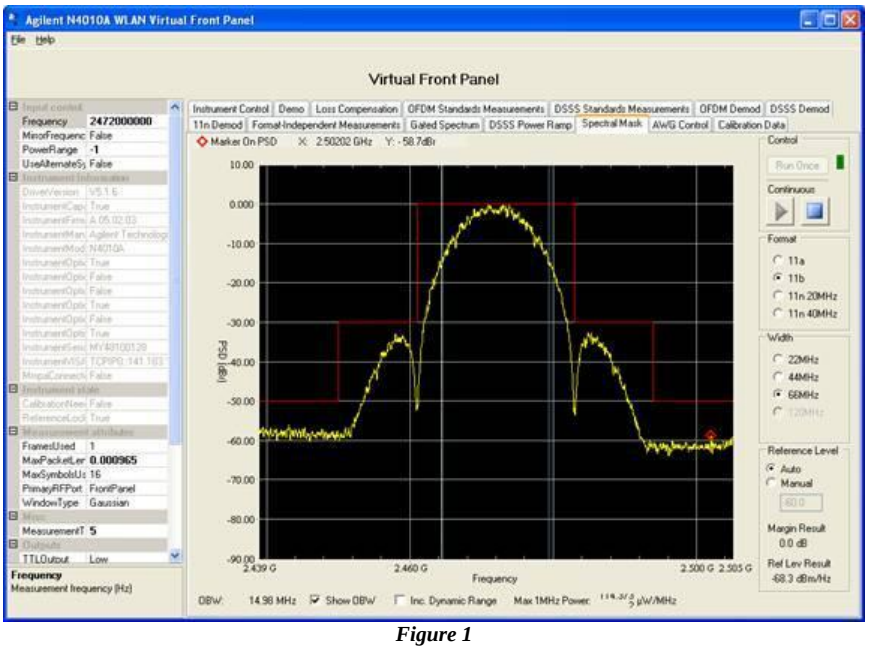

Figure 1

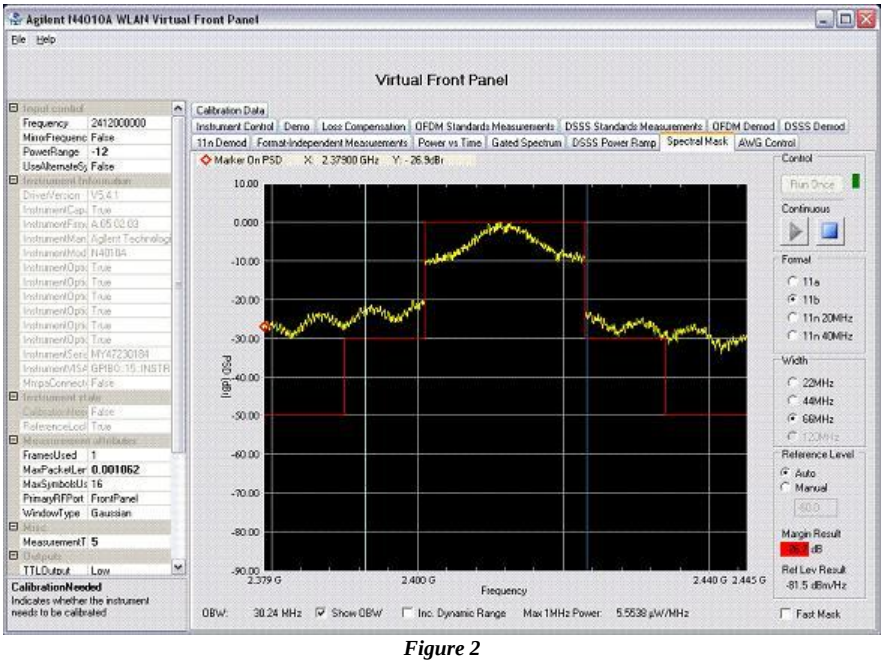

Figure 2

This fault can be fixed by simply upgrading the N4010A firmware to revision A.05.03.10 (or later).

N4010A firmware files & the upgrade procedure can be downloaded from the following web page:
www.agilent.com/find/n4010a_firmware