

N9041B-01

# Modification Recommended Service Note

Supersedes:  
NONE

## N9041B X-Series Signal Analyzer

Serial Numbers: MY60100001- MY60100003, MY60100005, MY60100102, MY60100103

### The Problem

Signal amplitude loss can occur above 3.6 GHz tuned frequency.

### Parts Required:

NONE. Software update only.

#### ADMINISTRATIVE INFORMATION

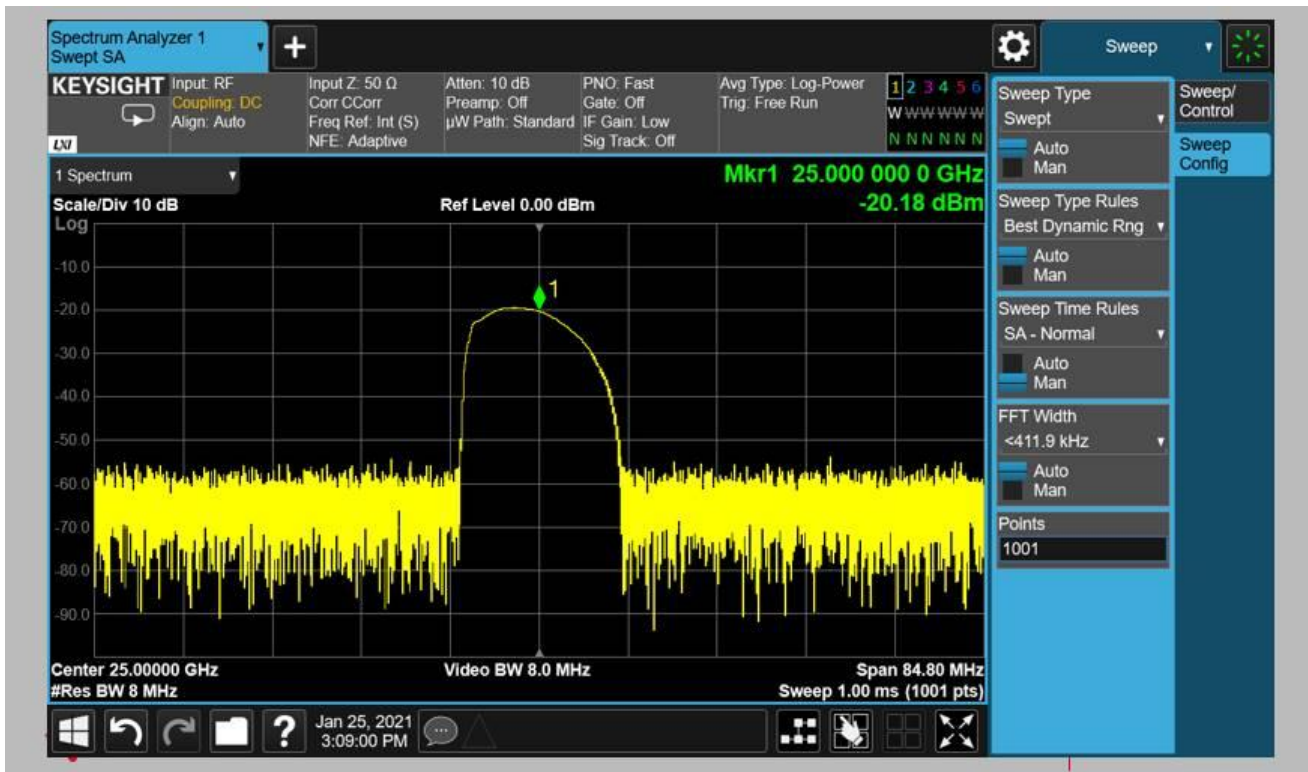
|               |   |                            |                                   |        |                                   |
|---------------|---|----------------------------|-----------------------------------|--------|-----------------------------------|
| ACTION        | <input type="checkbox"/> ON SPECIFIED FAILURE                       | STANDARDS                  |                                   |        |                                   |
| CATEGORY:     | <input checked="" type="checkbox"/> AGREEABLE TIME                  | LABOR:                     | 0.5 Hours                         |        |                                   |
| LOCATION      | X CUSTOMER INSTALLABLE  | SERVICE:                   | <input type="checkbox"/> RETURN   | USED   | <input type="checkbox"/> RETURN   |
| CATEGORY:     | <input type="checkbox"/> ON-SITE (active On-site contract required) | INVENTORY:                 | <input type="checkbox"/> SCRAP    | PARTS: | <input type="checkbox"/> SCRAP    |
|               | X SERVICE CENTER  |                            | <input type="checkbox"/> SEE TEXT |        | <input type="checkbox"/> SEE TEXT |
|               | <input checked="" type="checkbox"/> CHANNEL PARTNERS                |                            |                                   |        |                                   |
| AVAILABILITY: | PRODUCT'S SUPPORT LIFE  | NO CHARGE AVAILABLE UNTIL: | 2-15-2022                         |        |                                   |
|               | <input type="checkbox"/> Calibration Required                       | PRODUCT LINE:              | 12                                |        |                                   |
|               | X Calibration NOT Required  | AUTHOR:                    | BS                                |        |                                   |

ADDITIONAL INFORMATION:

**Situation:**

Calibration values on certain disk image versions causes the preselector filter used above 3.6 GHz to be swept too quickly and this will result in measured amplitude loss. The amount of loss will vary and depends on whether the Preselector Center routine was performed, the frequency span setting, and the Sweep Time Rules setting, where the default Sweep Time Rules setting is Normal, which allows faster sweeps than the Accuracy setting.

If you want to verify the problem, set up the analyzer as shown in this screen shot. A 25 GHz signal at -15 dBm is provided by a signal source. Notice the signal is distorted, and the amplitude is 5 dB lower than expected.



The issue only appears on instruments with the serial numbers shown above.

### Solution/Action:

There are two possible courses of action.

#### Action 1.

1. Download and install instrument software A.27.10 or later. This software version ignores the calibration values on the instrument disk image that cause the issue.
2. Perform the built-in Characterize Preselector routine.  
Press **System** (the gear icon in the upper right portion of the instrument screen), **Alignments**, **Advanced**, **Characterize Preselector**.

Instrument software is available at:

[https://www.keysight.com/find/xseries\\_software](https://www.keysight.com/find/xseries_software)

#### Action 2.

Applicable to Keysight service centers.

A utility is available if you have a PC that can remotely control the signal analyzer via LAN, GPIB or USB, and you can install the VEE run time engine on the PC. The utility will modify the calibration values on the analyzer's disk image and trigger the Characterize Preselector routine.

The instrument software does not need to be updated

Download the utility from [http://sa.support.keysight.com/XSA/YTF\\_util/YTF\\_Fix.vxe](http://sa.support.keysight.com/XSA/YTF_util/YTF_Fix.vxe)

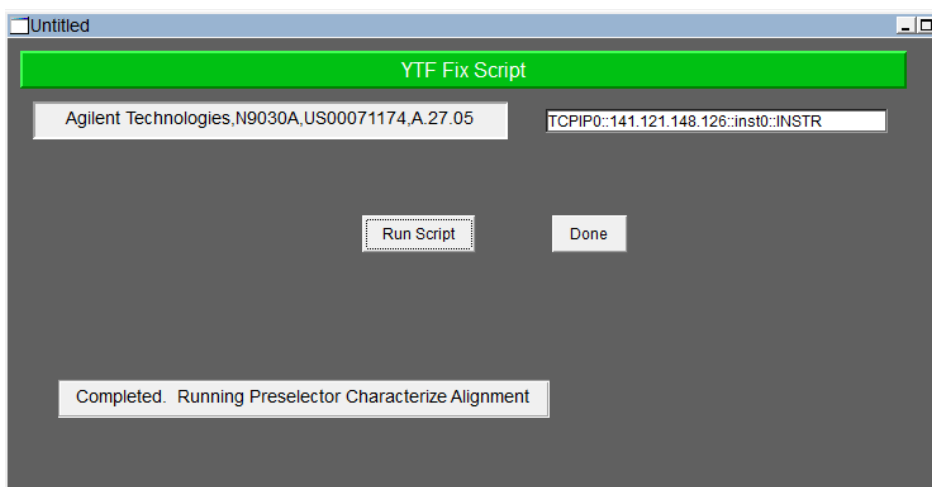
The VEE runtime engine can be installed from:

<https://www.keysight.com/main/software.jsp?ckey=2213956&id=2213956&lc=eng&cc=US>

Carefully enter the instrument's VISA address into the upper right box and click Run Script.

For example, if an instrument is connected to a common LAN router with an external PC, then the VISA address would be in the format of: TCPIP0::192.168.0.2::inst0::INSTR, where 192.168.0.2 is the instrument's IP address.

The utility will complete the changes to the instrument's disk image and then perform the Characterize Preselector routine that takes a few minutes.



Revision History:

| Date        | Service Note Revision | Author      | Reason for Change |
|-------------|-----------------------|-------------|-------------------|
| 15 Feb 2021 | 01                    | Bill Scharf | As Published      |
|             |                       |             |                   |
|             |                       |             |                   |
|             |                       |             |                   |