

Information Only Service Note

Supersedes: NONE

N5171B X-Series EXG Analog Signal Generator

Serial Numbers: ALL

The Problem – Self-test #104 failure if replacement A3 RF Assembly, N5180-60279 with Hardware ID 0009 is not upgraded to the minimum FW B.01.96.

Parts Required: P/N Description Qty.

NONE

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ADMINISTRATIVE INFORMATION

[]] Calibration Required Calibration NOT Required **PRODUCT LINE: 15** AUTHOR: PY

ADDITIONAL INFORMATION:



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Situation:

The A3 RF assemblies were enhanced to support a new 12bit ADC for assurance of supply (AOS). Replacement of the A3 RF Assembly, N5180-60279 with Hardware ID 0009 will require minimum FW B.01.96 for it to operate properly. Multiple self-test failures can be observed after completing the selftest, as shown in Figure 1.

Figure 1 – Multiple self-test failures

FREQUENCY	Self Test
6.000 000 000 000 GHz -144.00 dBm	Run Complete Self Test
UNLOCK	
Self Test Summary	
The current status of self test is: Failure One or more tests have failed. System diagnostics	
indicate this test as the root failure: 104	
	View Test Info⊧
Passes: 9 Fails: 36	

First, check that the RF assembly is with hardware ID 0009. This can be found on the **Utility**, **Instrument Info**, **Installed Board Info** screen of the instrument, as shown in Figure 2.

Figure 2 - Installed Board Information Screen

FREQUENCY			RF OFF			Board Info	7
6.000	000 000	0 000 GH	z -1	44.00	dBm		
				1 11 0 0			
Installed Board 1 Name	Information Part#/Rev#	Serial#	HUID OFR F	PIC Opts E	str		
RF Analog FPGA PCI FPGA	N5180-60279 7,1db0,150 7,0130,000	23215200138 1:cd38 0:feb9	0009 000 0				
Ref FPGA Synth FPGA	2,12ba,131 12d,0000,0						
CPU	0960-3295	Q0843	0001 000	0000 0	0000		
FrontPanel Firmware	N5180-60286 2.02	13220814831	0001 000	0000 0	0000		
*** DEMO CODE ***	+			04/20/2022	2 09:44		

Factory has also made an identification, where a label "minimum FW B.1.96" is pasted on the shield, as shown in Figure 3.

Figure 3 – Location of label on the RF assembly



Solution/Action:

Upgrade the instrument firmware to B.01.96. Go to <u>http://www.keysight.com/find/exg_firmware</u> to download the instrument firmware.

Once the firmware successfully upgraded, verify that the self-test is passing on the instrument.

Revision History:

Date	Service Note Revision	Author	Reason for Change
26 Apr 2022	01	Petrina Yong	As Published