U2002A-02A S E R V I C E N O T E

Supersedes:

U2002A-02

U2002A - USB Power Sensor

Serial Numbers: MY47200101 – MY47200197

USB Sensor Range

Parts Required:

- 1. PC/ Laptop installed with NI Labview 8.0 or above or
- 2. Agilent VEE run time with Agilent IO Libraries 14.2 or above
- 3. Patch file in Agilent VEE or NI Labview.

Please download Agilent VEE patch file from url below: http://www.home.agilent.com/upload/cmc_upload/All/Agilent_Vee.zip

Please download NI Labview patch file from url below: http://www.home.agilent.com/upload/cmc_upload/All/AgU200x_Upgrade_ToolKit8.0.zip

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:				
	MODIFICATION AVAILABLE			
ACTION CATEGORY::	AGREEABLE TIME	[[]] PERFORMANCE ENHANCEMENT [[]] SERVICE / RELIABILITY ENHANCEMENT		
LOCATION CATEGORY:	[X] CUSTOMER INSTALLABLE [[]] ON-SITE [[]] SERVICE CENTER [[]] CHANNEL PARTNERS	AVAILABILITY:31 st December 2012		
AUTHOR: LCW		PRODUCT LINE: WC		
ADDITIONAL INFO	ADDITIONAL INFORMATION:			

© AGILENT TECHNOLOGIES, INC. 2011 PRINTED IN U.S.A.





Page 2 of 9

Situation:

The units with serial number above have configuration process issue. The min/max frequency in the sensor was configured wrongly and this will cause the unit detect wrong frequency range for the sensor or return user a wrong min/max frequency when queried. The impact is visible by the user in N1918A because the unit's frequency cannot be set or selected and it will create an error code "-222 data out of range". If user uses SCPI mode, an error also will be generated but user might not aware.

Solution/Action:

Please follow the instruction below.

Tools required : NI Labview or Agilent IO and Agilent VEE run time

USB Sensor frequency Range :

- a) U2000A (10MHz 18GHz)
- b) U2001A (10MHz 6 GHz)
- c) U2002A (50MHz 24GHz)
- d) U2004A (9kHz 6GHz)

Patch file : The patch file will be in two languages, either Agilent VEE or NI LabView.

User can select either application.

Procedure : This document will contain two different procedures, (1.0) and (2.0).

- a) 1st procedure (1.0) is the step by step instruction using Agilent VEE patch file
- b) 2nd procedure (2.0) is using NI Labview.

1.0 Using Agilent Vee

System requirement : Install the latest Agilent IO library and Agilent VEE run time or Agilent VEE.

1.1 Instruction

- a. Please make sure you have installed:
- i. Agilent IO library 14.2 or above.
- ii.Agilent VEE runtime or Agilent VEE.
- b. Turn on Agilent Connection Expert

c. Plug in your USB sensor to USB port (you may only connect one USB sensor at a time). Once you sensor is connected the USB port, you will be able to see your USB sensor is detected by "Agilent Connection Expert" (as shown in Picture 1).



Picture 1

d. Change the properties of the sensor. Please select the "UsbDevice" and right click. Choose "Change Properties" (as shown in Picture 2).



Picture 2

e. "Change Properties" message box will pop up and you are required to change the "VISA alias" from "UsbDevice" to "UsbInstrument" and click OK (as shown as Picture 3).

Page 3 of 9

😼 VISA Alias Pro	operties 🛛 🛛	3		
Set configurable pr	operties for this VISA alias			
VISA alias:	UsbInstrument			
VISA address:	USB0::2391::10776::BW3::0::INSTR			
	OK Cancel Help			
D ¹ - 4 2				

Picture 3

f. Once you have completed the steps above, execute the Agilent Vee patch file named "Max & Min Freq Update Test.vxe". You will see the screen shot as in Picture 4.

🔽 Max & Min Freq	Update Test	
	Update Min & Max Freq Setting V1.0	
	Update Min & Max Freq Verify Min & Max Freq	
Model	Serial Number	
Min Freq	Max Freq	



g. This patch file consists of 2 functions which will allow user to update and/or verify the Min and Max Frequency.

h. When you click on "Verify Min & Max Freq", the program will read the model and serial number of the sensor and shows the Min and Max Frequency stored in EPROM.

If the Min or/and Max frequency is correct, the status will show as "PASS" (see Picture 5).

Page 5 of 9					U2002A-02A
	🔽 Max & Min Freq	Update Test			
		Update Min &	Max Freq	Setting V1.0	
		Update Min & Max Fre	pe	Verify Min & Max Freq	
	Model	U2000A	Serial Numbe	r BW3	
	Min Freq	10M	Max Freq	18G	
			PASS		



If status the Min or/and Max frequency is wrong, the status will show as "FAIL" (see Picture 6).

🗖 Max & Min Freq	Update Test			
Update Min & Max Freq Setting V1.0				
	Update Min & Max Fre	eq ۱	/erify Min & Max Freq	
Model	U2000A	Serial Number	BW3	
Min Freq	1000	Max Freq	18G	
		FAIL		
]	Picture 6		

i. If the unit fails the verification test, as in Picture 6, click on the "Update Min & Max Freq" button to update the correct frequency into USB sensor. Once the update is completed, it will show "UPGRADE COMPLETED" in

the status bar. Please refer to Picture 7.

	Update Min	& Max Freq	Setting V1.0	
L	Jpdate Min & Max I	Freq	Verify Min & Max Fr	eq
Model	U2000A	Serial Numbe	r BW3	
Min Freq	1000	Max Freq	18G	
	U	PGRADE COMPLE	TED	



j. If you have more than one sensor, you are required to close the program and repeat steps (a) to (i) for the next sensor.

System requirement : Installed NI Labview 8.0 or above

2.1 Instruction

a. Please ensure NI Labview 8.0 or above is installed in your PC.

b. Plug in your USB sensor to the USB port (you may plug in 2 sensors at same time). Execute "AgU200x_Upgrade_ToolKit.exe". An error message might be popped out as in Picture 8. Click "STOP" to ignore it as the USB sensor is not selected.

c. Click on the drop down list at "VISA Resource Name". You will be able to see the list of USB sensors that are connected to your PC. (as shown in Picture 9)

AgU200x_Upgrade_ToolKit.vi	
Elle Edit Operate Tools Window Help	Agilent
Frequency Upgrade ToolKit Using LARMEW 85	
VISA Resource Name	
18	
Model Max Frequency	
Serial Number	
Error -1073807346 occurred at YISA Write in Agilent_Interface_Control.vi- >AgU200x_Upgrade_Toolkit.vi	
Possible reason(s):	
VISA: (Hex 0x8FFF000E) The given session or object reference is invalid.	
Continue Stop	
Agilent Technologies Inc	
- "Built on 26.02.2008	
	► ►

Picture 8

AgU200x_Upgrade_ToolKit.vi	
Elle Edit Operate Iools Window Help	Agilent
	Max
Frequency Upgrade ToolKit using LARKER 85	
VISA Resource Name	
LPT1	
USB0::0x0957::0x2A18::BW3::INSTR Max Frequency USB0::0x0957::0x2A18::MY47000101::INSTR	
Refresh	
Min Frequency	
Start Stop	
Agilent Technologies Inc	
Built on 26.02.2008	
	~
	>

Picture 9

Page 8 of 9

- d. Select a USB sensor and click "Run" (see Picture 10).
- e. You will see the Model and Serial Number of sensor that you have connected.

Aul 200x Upgrade_ToolKit.vi	
Ele Edit Operate Tools Window Help	Agilent
	Max
Run / Frequency Upgrade ToolKit using LARKEW 85	
VISA Resource Name	
USB0::0x0957::0x2A18::BW3::INSTR	
Madal May Fraguency	
U2000A	
Serial Number Min Frequency	_
BW3	-
Start Stop	
Agilent Lechnologies Inc	
Built on 26.02.2008	
6	~

Picture 10

f. Click on "Start", a message box will be popped up for you to select for "Update" or "Verification" of the sensor (refer Picture 11).

▶ AgU200x_Upgrade_ToolKit.vi	
Ele Edit Operate Tools Window Help	Agilent Min Max
Frequency Upgrade ToolKit Using LARMEW 85	
VISA Resource Name	
% USB0::0x0957::0x2A18::BW3::INSTR	
Model	
Serial Number BW3 Frequency Frequency	
Start Stop	
Agilent Technologies Inc	
Built on 26.02.2008	
<pre>K</pre>	×

Picture 11

g. If you choose "Verification", you may find that the Min and Max Frequency is burn in wrongly (as shown in Picture 12). You are required to click on "Start" again and choose "Update". After update, click on "Start", then "Verification" again to ensure the Min and Max frequency is burn in correctly (as in Picture 13).







h. You are required to "Stop" the program, disconnect the USB sensor(s), connect new sensor(s) and repeat steps (d) to (g) for new sensor(s). If you have previously connected two sensors to the PC, you are required to allow the update/ verification to finish for both sensors before continuing with a new sensor.