Agilent Technologies

NFA Noise Figure Analyzer Firmware Upgrade Procedure

Purpose:

The purpose of this document is to provide a step-by-step procedure for obtaining, and installing the latest revision of firmware into an Agilent NFA Noise Figure Analyzer.

Procedure:

Be sure to follow all of the parts of this procedure to complete this upgrade process:

- Create the firmware upgrade disk set
- Install firmware into the Agilent NFA, Noise Figure Analyzer
- Verifying the installed version of firmware

A. Create The Firmware Upgrade Disk Set:

NOTE: It is important to point out that the six disks which will be used to transfer the firmware to the analyzer should be freshly formatted diskettes using a Windows® PC.

The six disks can be labeled ahead of time as follows:

8. NFA Loader (Disk 1)
8. NFA Firmware 1 of 5 (Disk 2)
8. NFA Firmware 2 of 5 (Disk 3)
8. NFA Firmware 3 of 5 (Disk 4)
8. NFA Firmware 4 of 5 (Disk 5)
8. NFA Firmware 5 of 5 (Disk 6)

1. Download the executable file to start the firmware upgrade procedure.
   Select the NFA firmware version download from the upgrade web page. It is recommended that you select the "Save" in the dialogue text box, as shown in **Figure 1**. This will allow you to store the firmware upgrade executable file in a directory of your choice.
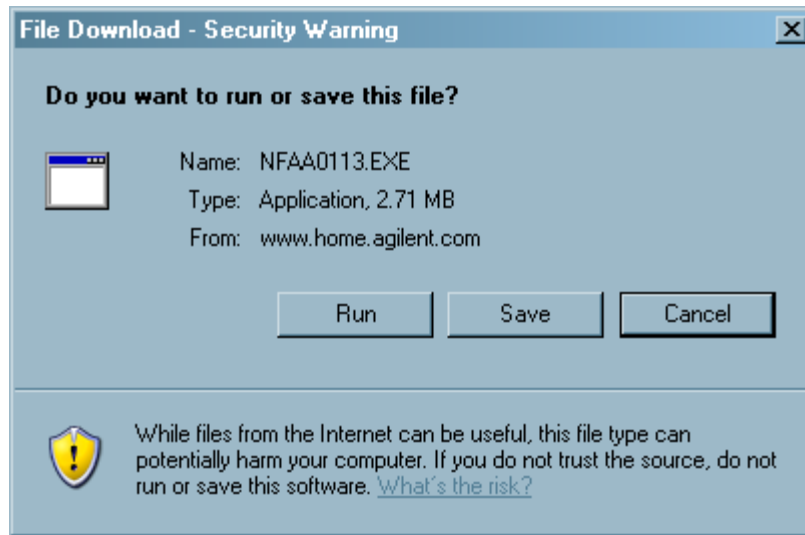
Figure 1

2. Double click on the firmware upgrade executable file from the stored location.
   The text box shown in **Figure 2** will flash on the computer display.

Figure 2

3. Insert the floppy diskette labeled "NFA Loader" into the disk drive and click "OK".
   If you insert disk 1 in the first 10 seconds, **Figure 3** will not be displayed and automatically get replaced with **Figure 4**.
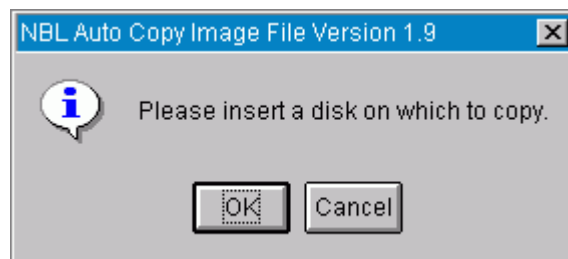

Figure 3

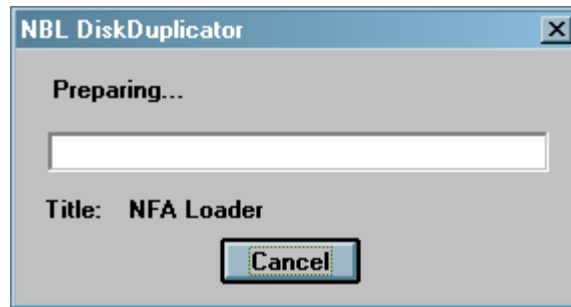4. The duplication program prepares the "NFA Loader" disk 1.

Figure 4

5. Click "OK" and wait for the Firmware Upgrade Executable to create the "NFA Loader".
    The text box shown in **Figure 6** will be displayed as the tracks are recorded onto the diskette. There are (79) total tracks.
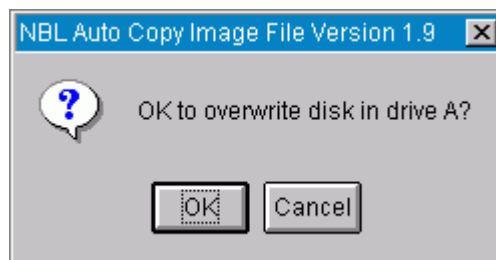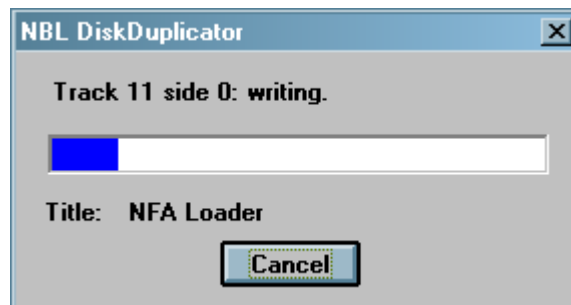

Figure 5

Figure 6

6. Wait for the Firmware Upgrade Executable to display the text box which verifies that it is OK to overwrite the next diskette.
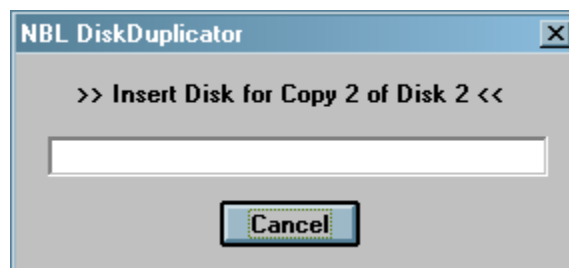   The text box will look like the one shown in **Figure 7**.
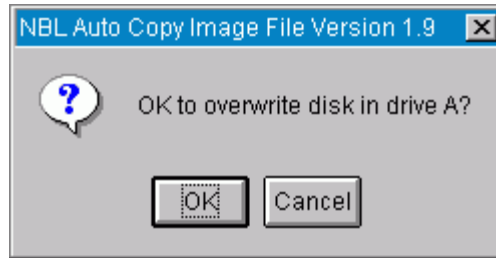

Figure 7

Figure 8

7. Insert the floppy diskette labeled "NFA Firmware 1 of 5" into the disk drive and click on "OK".
The text box shown in **Figure 9** will be displayed as the tracks are recorder onto the diskette.
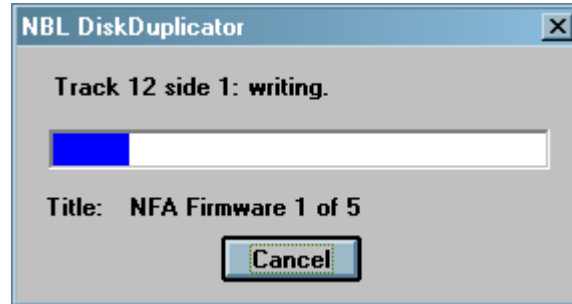

Figure 9

NOTE: Once the second diskette is created, the firmware upgrade executable will again prompt you to insert the next diskette, and ask if it is OK to overwrite. To proceed, insert the next diskette and click OK.

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8. Create the remaining four diskettes, "NFA Firmware 2 of 5", "NFA Firmware 3 of 5", "NFA Firmware 4 of 5", "NFA Firmware 5 of 5" using the same process for generating the previous diskettes.
After all six firmware upgrade diskettes have been created, the text box shown in **Figure 10** will be displayed.
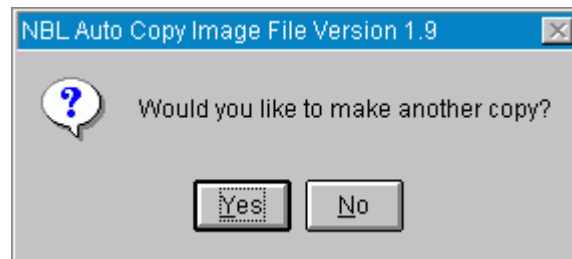

Figure 10

B. Install Firmware into the Agilent NFA Noise Figure Analyzer:

1. Insert the floppy diskette labeled "NFA Loader" into the disk drive and cycle power.
   After several seconds the NFA Firmware Loader utility window will appear on the display of the Agilent NFA. It will prompt you for the first of the firmware diskettes.

2. Insert the floppy diskette labeled "NFA Firmware 1 of 5" into the disk drive and press **{CONTINUE}**.
   After a few seconds the analyzer will display the revision of firmware which will be loaded into the analyzer, along with the number of firmware diskettes that you should have (5). It will again ask you to press **{CONTINUE}** if you would like to proceed with the firmware upgrade.

3. Press **{CONTINUE}** and wait for the first firmware disk to load.
   It will take approximately 5 minutes for this disk to load into the analyzer.

4. When prompted, insert the floppy diskette labeled "NFA Firmware 2 of 5" into the disk drive and press **{CONTINUE}**.
   It will take approximately 5 minutes for this disk to load into the analyzer.

5. When prompted, insert the floppy diskette labeled "NFA Firmware 3 of 5" into the disk drive and press **{CONTINUE}**.
   It will take approximately 5 minutes for this disk to load into the analyzer.

6. When prompted, insert the floppy diskette labeled "NFA Firmware 4 of 5" into the disk drive and press **{CONTINUE}**.
   It will take approximately 5 minutes for this disk to load into the analyzer.

7. When prompted, insert the floppy diskette labeled "NFA Firmware 5 of 5" into the disk drive and press **{CONTINUE}**.
   It will take approximately 5 minutes for this disk to load into the analyzer. After the firmware has been loaded off of the fifth diskette, the Firmware Installation Verification window will be displayed on the analyzer.

8. Press **{CONTINUE}** and wait for the analyzer to copy the firmware into Flash memory.
   It will take approximately 5 minutes for this process to take place.

NOTE: It is extremely important to **NOT CYCLE POWER** while the process being performed in this step is taking place. Doing so will disrupt the installation of the firmware and will prevent the firmware from completing a proper installation.

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9. Once the copying of the firmware to Flash memory has completed, cycle power on the analyzer.

C. Verifying the Installed Version of NFA Firmware:

1. In order to verify the revision of firmware, follow these keystrokes:

   Press [System]
   Press {More}
   Press {Show System}

   The 5th line down on this screen should now list the loaded version to be the same as what was downloaded.

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