Agilent N4392A Optical Modulation Analyzer

Security Features and Volatility Documentation

Agilent Technologies

Notices

Manual Part Number

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For Assistance and Support

http://www.agilent.com/find/assist

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Front and Rear Panel Symbols

This symbol indicates separate collection for electrical and electronic equipment, mandated under EU law as of August 13, 2005. All electric and electronic equipment are required to be separated from normal waste for disposal (Reference WEEE Directive, 2002/96/EC).

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Contacting Agilent Sales and Service Offices

Assistance with test and measurements needs and information on finding a local Agilent office is available on the internet at, *http://www.agilent.com/find/assist*. If you do not have access to the internet, please contact your field engineer.

Note: In any correspondence or telephone conversation, refer to the product by its model number and full serial number. With this information, the Agilent representative can determine whether your unit is still within its warranty period.

Product Declassification and Security

Model Number(s): All Options
Product Name: N4392A
Product Family Name: Optical Modulation Analyzer

Introduction

This document describes instrument security features and the steps to declassify an instrument through memory sanitization or removal. For additional information please go to http://www.agilent.com/find/ad and click on the security instrument tab.

Terms and Definitions

Definitions:

Clearing – Clearing is the process of eradicating the data on media before reusing the media so that the data can no longer be retrieved using the standard interfaces on the instrument. Clearing is typically used when the instrument is to remain in an environment with an acceptable level of protection.

Sanitization – Sanitization is the process of removing or eradicating stored data so that the data cannot be recovered using any known technology. Instrument sanitization is typically required when an instrument is moved from a secure to a non-secure environment such as when it is returned to the factory for calibration. (The instrument is declassified.) Agilent memory sanitization procedures are designed for customers who need to meet the requirements specified by the US Defense Security Service (DSS). These requirements are outlined in the "Clearing and Sanitization Matrix" issued by the Cognizant Security Agency (CSA) and referenced in National Industrial Security Program Operating Manual (NISPOM) DoD 5220.22M ISL 01L-1 section 8-301.

Security erase – Security erase is a term that is used to refer to either the clearing or sanitization features of Agilent instruments.

Instrument declassification – A term that refers to procedures that must be undertaken before an instrument can be removed from a secure environment such as is the case when the instrument is returned for calibration. Declassification procedures will include memory sanitization and or memory removal. Agilent declassification procedures are designed to meet the requirements specified by the DSS NISPOM security document (DoD 5220.22M chapter 8)

Instrument Memory and Volatility Information

This section contains information on the types of memory available in your instrument. It explains the size of memory, how it is used, its location, volatility, and the sanitization procedure.

Summary of instrument memory - base instrument

Memory Type and Size	Is Memory user accessible as a mass storage device?	Writable During Normal Operation?	Data Retained When Powered Off?	Purpose/Contents	Data Input Method	Location in Instrument and Remarks	Sanitization Procedure
Main Memory (SDRAM) 4GB	No	Yes	No	Application RAM	Operating system (not user)	Mainboard	Cycle power
7.2 GB Flash Memory	Yes	Yes	Yes	Factory calibration/configuration data	Firmware operations, user saved-data, operating system	Testhead, it is highly recommended to not store user data on this device	See next chapter for details.
> 200 GB hard disc	Yes	Yes	Yes	Operating system, Agilent VSA and OMA software	Firmware operations, user saved-data, operating system	CPU board The battery can be removed to clear the memory, but must be reinstalled for instrument to operate. Battery is located …	See next chapter for details.

Memory Clearing, Sanitization and/or Removal Procedures

This section explains how to clear, sanitize, and remove memory from you instrument for all memory that can be written to during normal operation and for which the clearing and sanitization procedure is more than trivial such as rebooting your instrument.

Description and purpose	Flash Drive
Size	7.2 GB
Memory clearing	Check the USB drive called “N4392A”. This drive contains the calibration data of the OMA and should not contain any user files. If there are user files, then remove them. If unsure remove the whole disc.
Memory sanitization	N/A
Memory removal	*Contact Agilent support to ask for instructions how to open the testhead and how to remove the USB drive.*
Write protecting	N/A
Remarks	

Description and purpose	Hard disc
Size	> 60 GB
Memory clearing	The Agilent Optical Modulation Analyzer (OMA) can be declassified by performing three steps: Step-1: Cycle power on the OMA. This clears all of the volatile RAM memory. Step-2: Perform a factory restore or remove the hard disc drive from the instrument completely. The hard disc drive contains the Windows operating system, Scope operating system, Agilent VSA and OMA software, setups, waveform memories, waveform files, screen images, and calibration data for the scope, OMA testhead and probes. All RAM information is duplicated on Hard Disc drive. This enables proper startup and operation after a shut down. This procedure declassifies all of the RAM as listed below: There is RAM on the Mother Board which is cleared when power is cycled. There is volatile video RAM for save waveform display data and volatile display RAM for screen colors which is stored to the RAM on the mother board. This RAM is used to aid in multiplexing the graticule and alphanumeric information with the dynamic waveform information of the acquisition section of the oscilloscope. This procedure will ensure that all setup and measurement information is removed. Step-3: Check the USB drive called “N4392A”. This drive contains the calibration data of the OMA and should not contain any user

	files. If there are user files, then remove them. If unsure remove the whole disc. Step-4: This step is only needed if the hard disc was removed in step 3. When the instrument comes back from Agilent then copy the calibration data to an external disc or network share. Calibration data is located at: (Windows 7: C:\ProgramData\Agilent\N4392A and C:\Users\Administrator\AppData\Roaming\Agilent\N4392A), (Windows XP: C:\ProgramData\Agilent\N4392A and C:\Users\Administrator\AppData\Roaming\Agilent\N4392A) Replace the hard disc with the original hard disc which was removed in step 2. Copy the calibration files back from the external disc or network share.
Memory sanitization	N/A
Memory removal	*You can easily remove the hard disc without opening the OMA.*
Write protecting	N/A
Remarks	

User and Remote Interface Security Measures

USB Mass Storage Device Security
To prevent USB write capability on XPSP2, create a new registry key of: HKLM\System\CurrentControlSet\Control\StorageDevicePolicies.
Then create a REG_DWORD entry in it called WriteProtect. Set it to "1" and you'll be able to read from USB drives but not write to them

In Windows 7:

- Click Start->Run and enter the command gpedit.msc
- In the left pane navigate Local Computer Policy->Computer Configuration->Administrative templates->System->Device installation->Device installation restrictions
- Enable the policy "Prevent installation of devices that match any of these ids"

Remote Access Interfaces
The Agilent VSA and OMA software have remote interfaces based on SCPI and .NET Remoting. The underlying Windows operating system offers additional protocols.

Activate and configure the Windows Firewall and Windows Security and Permissions. For maximum security remove the physical network connection

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