Keysight PXIe VNA/ Streamline Series USB VNA

This document provides security information for the following instruments:

Streamline Series of USB Vector Network Analyzers

Models P50xxA

PXIe Vector Network Analyzers

Models M980xA

Letter of Volatility

KEYSIGHT TECHNOLOGIES

1 Security Terms and Definitions

Term	Definition
Clearing	As defined in Section 8-301a of DoD 5220.22-M, "National Industrial Security Program Operating Manual (NISPOM)", clearing is the process of eradicating the data on media before reusing the media in an environment that provides an acceptable level of protection for the data that was on the media before clearing. Hence, clearing is typically used when the instrument is to remain in an environment with an acceptable level of protection.
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 include memory sanitization or memory removal, or both. Keysight declassification procedures are designed to meet the requirements specified in DoD 5220.22-M, "National Industrial Security Program Operating Manual (NISPOM)", Chapter 8.
Sanitization	As defined in Section 8-301b of DoD 5220.22-M, "National Industrial Security Program Operating Manual (NISPOM)", sanitization is the process of removing the data from media before reusing the media in an environment that does **not** provide an acceptable level of protection for the data that was in the media before sanitizing. Hence, 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. Keysight memory sanitization procedures are designed for customers who need to meet the requirements specified by the US Defense Security Service (DSS). These requirements are specified in the "Clearing and Sanitization Matrix" in Section 5.2.5.5.5 of the ISFO Process Manual for the Certification and Accreditation of Classified Systems under the NISPOM.
Secure Erase	Secure Erase is a term that is used to refer to either the clearing or sanitization features of Keysight instruments.

2 Instrument Memory & Volatility

#	Memory Component, Type, Size	Writable during normal Operation?	Data Retained w/ powered off?	Purpose/Contents	Data Input Method	Sanitization Procedure
1	Flash Memory on carrier board, 32 Mbyte	No	Yes	FPGA configuration data	Firmware update	None required; no user data
2	Flash Memory on carrier board, 32 Mbyte	Yes	Yes	Factory calibration Service Log	Adjustment procedure, Firmware access	SERVice:LOGGing:CLEar for Service Log
3	Flash Memory on slug board, 32 Mbyte	No	Yes	FPGA configuration data Factory calibration	Firmware update, Adjustment procedure	None required; no user data
4	FRAM on carrier board, 2 kByte	Yes	Yes	Service Log	Firmware access only	SERVice:LOGGing:CLEar
5	FRAM on slug board, 2 kByte	Yes	Yes	Service Log	Firmware access only	SERVice:LOGGing:CLEar
6	DDR3 SDRAM on carrier board, 1 GByte	Yes	No	Acquisition data	Firmware access only	None required
7	DDR3 SDRAM on slug board, 1 GByte	Yes	No	Acquisition data	Firmware access only	None required
8	FPGA on carrier board, 0.8MByte	Yes	No	Hardware control code	Firmware access only	None required; no user data
9	FPGA on slug board 1.4MByte	Yes	No	Hardware control code	Firmware access only	None required; no user data
10	FPGA on motherboard, 560 kByte (P50xxA only)	Yes	No	Hardware control code	Firmware access only	None required; no user data
11	FPGA Flash on motherboard, 560 kByte (P50xxA only)	No	Yes	Hardware control code	Firmware access only	None required; no user data
12	Flash Memory on motherboard , 16Mbyte (P50xxA only)	No	Yes	Factory hardware configuration and license storage	Adjustment, firmware, and license installation SW only	None required; no user data

3 Memory Clearing, Sanitization and Removal Procedures

All volatile memory in the unit will be erased by removing power for about 30 seconds.

The M980xA and P50xxA create automatic log of data for troubleshooting and quality improvement purpose. The log data includes:

- Power On Count
- Reset Count
- Power On Time
- Analog Power On Time
- Maximum Temperature
- Over Temperature Count
- Overload Count
- Module selftest result
- FW event log

The log files are stored in the flash memory. For security reasons, if this data needs to be deleted,:SERVice:LOGGing:CLEar command can be used to clear the log recorded by the analyzers.

All user-stored data is contained in the host PCs hard drive.