

Letter of volatility

If you have data security concerns, this document tells you how to clear or sanitize the Model 2230 memory devices. It also explains how to declassify an instrument that is not functioning.

The procedures in this document are written to meet the requirements specified in:

- NISPOM, DoD 5220.22-M, chapter 8
- ISFO Process Manual for Certification and Accreditation of Classified Systems under NISPOM

Contact information

If you have any questions after you review the information in this documentation, please contact your local Keithley Instruments office, sales partner, or distributor. You can also call the Tektronix corporate headquarters (toll-free inside the U.S. and Canada only) at 1-800-833-9200. For worldwide contact numbers, visit tek.com/contact-us.

Products

This document contains procedures for the following models:

- 2230-30-1



Terminology

The following terms may be used in this document:

- **Clear:** Removes data on media or in memory before reusing it in a secured area. Clears all reusable memory to deny access to previously unsecured information.
- **Demo setups:** Demonstration applications that come loaded on the instrument; you cannot modify them.
- **Direct method of modification:** You can modify data directly.
- **Erase:** Equivalent to clear (see above).
- **Indirect method of modification:** The instrument system resources modify the data; you cannot modify the data directly.
- **Instrument declassification:** Procedures that must be completed before an instrument can be removed from a secure environment. Declassification procedures include memory sanitization and memory removal.
- **Media storage and data export device:** Devices that can be used to store or export data from the instrument, such as a USB port.
- **Nonvolatile memory:** Data is retained when the instrument power is turned off.
- **Protected user data area:** Contains data that is protected by a password.
- **Remove:** Clears instrument data by physically removing the memory device from the instrument.
- **Sanitize:** Eradicates instrument data from media and memory so it cannot be recovered by other means or technology. This is typically used when the device will be moved (temporarily or permanently) from a secured area to a nonsecured area.
- **Scrub:** Directly retrieve and clear the contents of the memory device.
- **User accessible:** You can directly retrieve the contents of the memory device.
- **User data:** Measurement data that represents signals that you connect to the instrument.
- **User modifiable:** You can write to the memory device during normal instrument operation using the front-panel interface or remote control.
- **User settings:** Instrument settings that you can change.
- **Volatile memory:** Temporary memory; data is lost when the instrument is turned off.

Clear and sanitize procedures

Memory devices

The following tables list the volatile and nonvolatile memory devices in the standard instrument and listed options. Detailed procedures to sanitize or clear these devices are shown in "Clearing data".

Nonvolatile memory devices

The following table lists nonvolatile memory devices and relevant memory-related information for models listed in "Products." If the table indicates that a device can be cleared by the user, see the detailed instructions in "Clearing data."

Type	Memory size	Function	Battery backup	User modifiable	Data input method	Location	To clear	To sanitize
24LC64 EEPROM	8 k x 8 bit	Current setup, saved setups, calibration constants	No	Yes	Firmware operations and user input	CPU board		See "Clearing data"
AT91SAM7 Flash	2 k x 8 bit	Calibration data, factory data, serial number	No	Yes	Firmware operations and user input	CPU board		See "Clearing data"
AT91SAM7 Flash	256 k x 8 bit		No	No	Firmware update	CPU board		
C8051F350	8 k x 8 bit		No	No	Firmware update	Main board		

Volatile memory devices

The following table lists volatile memory devices and relevant memory-related information for models listed "Products."

Type	Memory size	Function	Battery backup	User modifiable	Data input method	Location	To clear	To sanitize
AT91SAM7 SRAM	64 k		No	No	Firmware operations	CPU board	See "Clearing data"	
C8051F350	768 byte		No	No	Firmware operations	Main board	See "Clearing data"	

Clearing data

To clear flash and EEPROM memory:

1. Select **Power** to turn on the instrument.
2. Select **Enter key**.
3. Select **Esc key**.
4. Select the **number two (2) key**.

To clear AT91SAM and STM32F103

1. Select **Power** to turn the instrument off.
2. Wait at least 15 seconds.
3. Select **Power** to turn the instrument on.