PSM3000, PSM4000, and PSM5000 Series RF and Microwave Power Sensors/Meters Declassification and Security

Instructions

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Preface

This document helps customers with data security concerns to sanitize or remove memory devices from the PSM3000, PSM4000, and PSM5000 Series RF and Microwave Power Sensors/Meters.

These products have data storage (memory) devices and data output devices (USB ports). These instructions tell how to clear or sanitize the memory devices and disable the data output devices. The instructions also tell how to declassify an instrument that is not functioning.

Products

The following Tektronix products are covered by this document:

PSM3110	PSM4110	PSM5110
PSM3120	PSM4120	PSM5120
PSM3310	PSM4320	PSM5410
PSM3320	PSM4410	PSM5320
PSM3510		

Related Documents

The following table lists the documentation that is available for the product and shows where you can find it: in a printed manual, on the product documentation CD-ROM, or on the Tektronix Web site.

Table i: Product documentation

Item	Purpose	Location
User Manual	Provides operation and application information. This manual is available in English, Japanese, Simplified Chinese, Traditional Chinese, Korean, French, German, Italian, Portuguese, Russian, and Spanish.	Product Documentation USB device and available at www.tektronix.com/manuals
Programmer Manual	Provides commands for remotely controlling the instrument.	Product Documentation USB device and available at www.tektronix.com/manuals
Specifications and Performance Verification Technical Reference	Provides specifications and performance verification procedures for checking instrument performance.	Product Documentation USB device and available at www.tektronix.com/manuals
Installation and Safety Instructions	Provides safety and compliance information along with hardware installation instructions to present the associated safety warnings. This manual is available in English, Japanese, and Simplified Chinese.	Printed manual and also available in electronic format on the Product Documentation USB device and at www.tektronix.com/manuals

Terms

The following terms may be used in this document:

- **Clear.** This removes data on media/memory before reusing it in a secured area. All reusable memory is cleared to deny access to previously stored information by standard means of access.
- **Erase.** This is equivalent to clear.
- **Media storage/data export device.** Any of several 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 is powered off.
- **Power off.** Some instruments have a “Standby” mode, in which power is still supplied to the instrument. For the purpose of clearing data, putting the instrument in Standby mode does not qualify as powering off. For these products, you will need to either press a rear-panel OFF switch or remove the power source from the instrument.
- **Remove.** This is a physical means to clear the data by removing the memory device from the instrument. Instructions are available in the product Service Manual.
- **Sanitize.** This eradicates the data from media/memory so that the data 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 non-secured area.
- **Scrub.** This is equivalent to sanitize.
- **User-modifiable.** The user can write to the memory device during normal instrument operation, using the instrument interface or remote control.
- **Volatile memory.** Data is lost when the instrument is powered off.

Clear and Sanitize Procedures

Memory Devices

The following tables list the volatile and nonvolatile memory devices in the standard instrument and listed options.

Table 1: Volatile memory devices

Type and minimum size	Function	User modifiable[1]	Data input method	Location	To clear	To sanitize
DRAM 16K bytes	USB microprocessor system memory	No	Written by USB processor system	USB board	None	Disconnect the USB connection to the power sensor for at least 20 seconds

1 During normal instrument operation.

Table 2: Nonvolatile memory devices

Type and minimum size	Function	User modifiable[1]	Data input method	Location	To clear	To sanitize
EEPROM, 62K x 8 bits	Calibration constants, options, serial number, and model number	No	Programmed at the factory, no user data	Power board		Remove power board. (See page 3.)
EEPROM, 125K x 8 bits	Stores instrument firmware	No	Programmed at the factory, no user data	Power board		Remove power board. (See page 3.)

1 During normal instrument operation.

Data Export Devices

The following table lists the data export devices in the standard instrument and listed options.

Table 3: Data export devices

Type and minimum size	Function	User modifiable [1]	Data input method	Location	To disable
USB device port	Data transfer	Yes	Standard USB protocol	USB device port on rear of instrument	The USB device port cannot be disabled

1 During normal instrument operation.

Troubleshooting

How to Clear or Sanitize a Nonfunctional Instrument

To sanitize a nonfunctional instrument, use the following procedure to remove the power board. You should then return the instrument to Tektronix for installation of a new power board.

WARNING. *To avoid electric shock, disconnect the instrument from the PC before performing the following procedure. The PC supplies power to the instrument, so the instrument must be disconnected from the PC.*

WARNING. *To avoid electric shock, do not touch exposed connections.*

NOTE. *Replacement of any missing hardware will be charged according to the rate at the time of replacement.*

1. Check that the instrument is not connected to a PC or any other power source.
2. Remove the rubber bumpers from both ends of the instrument.
3. Remove the copper security cap and epoxy from the socket head screw on the rear panel of the instrument. Epoxy can be softened with a soldering iron tip and scraped out.
4. Remove the four socket head screws from the rear panel.
5. Remove the rear panel and the cylindrical outer case.
6. Remove the nylon and steel retaining screws from the USB board side of the instrument.
7. Using a non-conductive tool, carefully lever the power board out of its sockets.

How to Recover from Clearing or Removing the Instrument's Memory

Reload the system software per the loading instructions.