TLA7SA08 and TLA7SA16
Serial Analyzer Modules

Declassification and Security Instructions

Tektronix

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Preface

This document helps customers with data security concerns to sanitize or remove memory devices from TLA7SA08 and TLA7SA16 Serial Analyzer Modules.

These products have data storage (memory) devices and data output devices (USB ports). These instructions tell how to do the following:

- Clear or sanitize the memory devices

- Clear or sanitize an instrument that is not functioning

Products The following Tektronix products are covered by this document:

- TLA7SA08

- TLA7SA16

Related Documents The TLA7SA08 and TLA7SA16 Serial Analyzer Modules do not have a separate service manual. Refer to the *TLA7S08 and TLA7S16 Serial Analyzer Modules Service Manual* (Tektronix part number, 071-2188-XX) for the basic remove and replace instructions. This manual is available on the Tektronix Web site at www.tektronix.com/manuals. For other service needs, contact your local Tektronix representative.

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. Various devices that are 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.

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 memory device can be written to by the user during normal instrument operation, using the instrument's user 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.

You only need to perform the *Nonvolatile Memory Security Procedure* to clear the instrument.

Table 1: Volatile memory devices

Type and minimum size	Function	User modifiable	Input method	Location	Process to clear	Process to sanitize
DDR, 8.2 G x 8 (TLA7SA16) 4.1 G x 8 (TLA7SA08)	Acquisition memory for storing acquired data	No	Written by FPGA	Acquisition board	Remove power source from the instrument for at least 20 seconds.	
DRAM, 4 M X 8	Firmware execution code	No	Written by the processor system	LPU board	Remove power source from the instrument for at least 20 seconds.	

Table 2: Nonvolatile memory devices

Type and minimum size	Function	User modifiable	Input method	Location	Process to clear	Process to sanitize
FLASH, 2 M X 16	Stores instrument firmware and FPGA data	No	Programmed at the factory, no user data	LPU board		Remove LPU board and either securely store it or destroy it.
NVRAM, 128 K X 8	Stores instrument serial number and calibration constants	No.	Written by processor	LPU board		Remove LPU board and either securely store it or destroy it.
Flash, 32 M X 16	Stores FPGA bit files	No	Programmed at the factory, no user data	Acquisition board		Remove Acquisition board and either securely store it or destroy it.

Nonvolatile Memory Security Procedure

User data is not stored in nonvolatile memory. To secure nonvolatile memory, proceed as follows:

1. Remove the LPU board and Acquisition board from the module. Refer to the *Tektronix Logic Analyzer Solutions for PCI Express 3.0 Instruction Manual* (Tektronix part number, 077-0400-XX) on the Tektronix Web site at www.tektronix.com/manuals.

2. Since there is no way for you to erase nonvolatile memory, either store these circuit boards in a secure area or destroy them.

Data Export Devices

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

Table 3: Data export devices

Type	Function	User modifiable	Input method	Location	Process to disable
Reference clock	Provides a copy of the internal reference clock	No	User directed	Front panel of module	Unplug the Reference Clock cable from the output port on the front panel (See below).
VXI backplane	Interfaces with TLA mainframe	No	Instrument function and application software	Backplane connectors	Power off the TLA mainframe power and remove the module (See below).

Reference Clock and VXI Backplane

To locate and remove the Reference Clock cable and module from the TLA mainframe, refer to the *Tektronix Logic Analyzer Solutions for PCI Express 3.0 Instruction Manual* (Tektronix part number, 077-0400-XXX) on the Tektronix Web site at www.tektronix.com/manuals.

Troubleshooting

How to Clear a Non-Functional Instrument

If your instrument is not functioning and you need to clear it, remove the power source from the instrument for at least 20 seconds.