

**RTX100B Series RF Generators  
Declassification and Security  
Instructions**

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## **Contacting Tektronix**

Tektronix, Inc.  
14200 SW Karl Braun Drive  
P.O. Box 500  
Beaverton, OR 97077  
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tektronix.com](http://www.tektronix.com) to find contacts in your area.

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# Preface

This document helps customers with data security concerns to sanitize or remove memory devices from the RTX100B Series RF Signal Generators.

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.

**Products** The following Tektronix products are covered by this document:

- RTX100B ISDB-T RF Signal Generators
- RTX130B QAM and VBS RF Signal Generators

**Related Documents** The *RTX100B Series RF Generator Service Manual*, Tektronix part number 077-0194-xx, is available on the Tektronix Web site, at [www.tektronix.com/manuals](http://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. Detailed procedures to clear or sanitize these devices, if any, are shown following each table.

**Table 1: Volatile memory devices**

Type and minimum size	Function	User modifiable	Data input method	Location	To clear	To sanitize
ZBT RAM (5) 256 K x 36 (1) 512 K x 26	Time and frequency interleaving, delay adjust, rate averager, and frame generator	No	FPGA	A150 ISDB-T RF Output board (RTX100B)	None	Remove the power source from the instrument for at least 20 seconds
ZBT RAM 256 K x 36	Time and frequency interleaving	No	FPGA	A180 QAM Modulator board (RTS130B)	None	Remove the power source from the instrument for at least 20 seconds
SDRAM 64 MB	Mega FIFO	No	Written by processor system	A12 Main board	None	Remove the power source from the instrument for at least 20 seconds
DDRAM 1 GB	Processor system memory	No	Written by processor system	CPU Processor module	None	Remove the power source from the instrument for at least 20 seconds
SRAM	Cache RAM	No	Written by processor system	CPU Processor module	None	Remove the power source from the instrument for at least 20 seconds

**Table 2: Nonvolatile memory devices**

Type and minimum size	Function	User modifiable	Data input method	Location	To clear	To sanitize
Serial Flash	Holds FPGA PCI configuration	No	Factory configuration	A150 ISDB-T RF Output board (RTX100B)	None	None
EEPROM	Holds FPGA PCI configuration	No	Factory configuration	A180 QAM Modulator board (RTS130B)	None	None
EEPROM	Holds installed options	No	Factory configuration	A12 Main board	None	None
EEPROM	Holds FPGA image	No	Factory configuration	A12 Main board	None	None

**Table 2: Nonvolatile memory devices (cont.)**

<b>Type and minimum size</b>	<b>Function</b>	<b>User modifiable</b>	<b>Data input method</b>	<b>Location</b>	<b>To clear</b>	<b>To sanitize</b>
Flash	BIOS	No	Factory configuration	CPU Processor module	None	None
Fixed IDE Hard Drive	Holds operating system and application software. Holds user storable data such as test streams, and measurement results.	Yes	Firmware operations, user input	Mounted on chassis	Erase the hard drive with commercial erasure software. Reinstall Microsoft Windows and the instrument software using the supplied recovery discs.	Remove the hard drive. Store the removed hard drive in a secure area or destroy it.



## Data Export Devices

The following table lists the data export devices in the standard instrument and listed options. Detailed procedures to disable these devices, if any, are shown following the table.

**Table 3: Data export devices**

Type and minimum size	Function	User modifiable	Data input method	Location	To disable
LAN Ethernet connector	Data transfer	N/A	N/A	CPU Processor module	N/A
USB port	USB memory devices can be used to store user-storable data such as transport streams, measurement results, and instrument settings	Yes	User Writable	Instrument front panel	Remove all USB memory devices. USB devices can be reformatted, stored in a secure area, or destroyed.