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Preface

This document helps customers with data security concerns to sanitize or remove memory devices from the Tektronix RFM220 ISDB-Tb Measurement Demodulator.

This product has data storage (memory) devices and data output devices. 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.

Supported Products

RFM220 ISDB-Tb Measurement Demodulator.

Product Documentation

The following table lists the documents supporting the RFM220 demodulator. These manuals are available on the Tektronix Web site at www.tektronix.com/manuals.

Table 1: Product documentation

Item (Tektronix part number)	Purpose
RFM220 User Manual (071-2896-XX)	Provides installation and operational overviews
RFM220 Specifications and Performance Verification Technical Reference (077-0565-XX)	Provides complete product specifications and a procedure for verifying the operation of the instrument
RFM220 Declassification and Security Instructions (077-0567-XX)	Provides instructions for removing your proprietary information from the instrument (this document)
RFM220 Software License Notices Reference (001-1581-XX)	Provides the software licenses that cover the RFM220 software

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. This refers to 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 2: Volatile memory devices

Type and user input	Function	User modifiable?	Data input method	Location in instrument	To clear	To sanitize
DDR2 64 M x16	Data and programming of processor / data and programming of DSP	No	Written by processor or DSP	Main board	N/A	Remove the power source from the instrument for at least 20 seconds
DDR2 64 M x16	Acquisition	No	Written by FPGA	Main board	N/A	Remove the power source from the instrument for at least 20 seconds

Table 3: Nonvolatile memory devices

Type and user input	Function	User modifiable?	Data input method	Location in instrument	To clear	To sanitize
Flash 128 M	Program	Yes, only during firmware upgrade	Firmware operations	Main board	N/A	Upgrade the instrument firmware or remove the Main board. Store the removed Main board in a secure area or destroy the board.
Flash 128 M	Program / factory (SN, Mac address) parameters	Yes, only during firmware upgrade	Firmware operations	Main board	N/A	Upgrade the instrument firmware or remove the Main board. Store the removed Main board in a secure area or destroy the board.
EEPROM	Configuration parameters	Yes	Firmware operations	Main board	N/A	Remove the Main board. Store the removed Main board in a secure area or destroy the board.

Clear NVRAM

There are two methods for clearing the nonvolatile RAM.

- Reset the instrument back to the factory-default settings (from the RFM220 Client application, select Reset to Factory Settings in the Configuration menu).
- Upgrade the instrument firmware (run the RFM220 Device Setup utility on the PC or server hosting the RFM220 Aggregator application).

Data Export Devices

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

Table 4: Media storage/data export disable

Type and minimum		User			Process to
size	Function	modifiable?	Data input method	Location in instrument	disable
LAN Ethernet connector	Transfer data	N/A	N/A	Rear panel	N/A
RS232 connector	Transfer data	N/A	N/A	Rear panel	N/A
ASI connector	Transfer data	N/A	N/A	Rear panel	N/A

Troubleshooting

How to Clear or Sanitize a Non-Functional Instrument

If your instrument is not functioning and you need to clear or sanitize it, proceed as follows:

Main Board

Remove power to clear any configuration information. The MAC and IP addresses are held in an EPROM. If this needs to be sanitized, remove the Main board from the instrument. Store the removed Main board in a secure area or destroy the board.

How to Recover from Clearing or Removing the Instrument Memory

Follow the procedures in the *RFM220 User Manual* to reset the network information, and to reconfigure the tests to your application. This manual is available on the Tektronix Web site: www.tektronix.com/manuals.