

How to Sanitize User Data in a 33250A Function / Arbitrary Waveform Generator for Security Reasons

Purpose

To document the internal memory used in the <insert model number> instrument and how data can be sanitized/cleared/erased for security reasons.

Volatile Memory

Type: SRAM (U203 - U206, U403, U507)

Size: 6MB

User Modifiable (Y/N): Yes

Function: Macros and status.

Process to Sanitize: Volatile memory is cleared each time power is cycled.

Type: SYNCH FAST STATIC RAM (U1304, U1305)

Size: 2MB

User Modifiable (Y/N): Yes

Function: Macros and status.

Process to Sanitize: Volatile memory is cleared each time power is cycled.

Non-Volatile Memory

Type: Program ROM Flash Memory (U207 – U210)

Size: 512K x 8-bit

User Modifiable (Y/N): Yes

Function: Arbitrary waveform storage

Process to Sanitize: Delete the user-defined arbitrary waveforms from memory. DATA:DELeTe:ALL from the bus or deleting the waveforms from the front panel will remove the arbitrary waveform. (Flash memory is erased by converting all the values in a memory block to “1s”). Arbitrary waveform names are stored in FRAM and are disassociated with the waveform memory when the waveform is deleted. For total security, rename the waveform to ARB_1, ARB_2, etc, from the front panel or download arbs with these names before deleting.



Type: FRAM (U211)

Size: 64KB

User Modifiable (Y/N): Yes

Function: Calibration coefficients, state storage, I/O settings.

Process to Sanitize: Delete the stored states from the front panel by deleting each state one at a time. From the bus, use the command `MEMory:STATe:DELeTe {1|2|3|4}` to delete the specified storage location as well as the assigned name. An error will be generated if you attempt to recall a deleted or non-existent state. The 33250A overwrites the memory (0s) when the state is deleted.

Removable Media

Type: None

Additional Information

Battery: None

Instrument Power-off state memory (this information is used by the instrument to power-up in this state if the power-down mode is enabled) <i>U211</i>	Reset the instrument to the factory default conditions before turning off the instrument by selecting the “Set to Defaults” from the front panel or sending the *RST command.
Calibration Constant Storage <i>U211</i>	Altered during the adjustment process; this information is instrument specific and is used to shift the operating point of the instrument such that the output is within specification. There is no application specific information stored in this memory
Calibration Security Code (up to 12 alphanumeric characters; this code is used to control access to the instrument adjustments) <i>U211</i>	The current code can be over-written by another code either from the front panel or the command <code>CALibration:SECure:CODE <new code></code>
Calibration Count (tracks the number of adjustment groupings that have been completed since the instrument was manufactured)	Increments upward when each block of adjustments is completed; maximum count of 65,535. There is no application specific information stored in this memory.
Calibration Message (room for a 40 character message; used to record calibration information such as dates, serial number and etc.)	This message can be over-written by another message only from the remote-interface command <code>CALibration:STRing <quoted string></code>

This information is subject to change without notice.

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<i>U211</i>	
I/O Configuration (GPIB address, baud rate, parity/data bits, and handshake) <i>U211</i>	<p>This information is used to configure the interface for programming and contains no other application specific information. If there is concern regarding this information being known, set the parameters to the factory settings using the front-panel interface:</p> <p>GPIB Address: 10 RS-232 Baud Rate: 57600 RS-232 Parity/Data Bits: None/8 data bits RS-232 Handshake: DTR/DSR</p>

Contact Information

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