

ADP5250 Statement of Volatility

Revised March 1, 2022

This manual applies to the ADP5250 rev. A.1

This document lists the location, purpose, capacity, volatility and (re)programmability of memory devices that may be installed on the ADP5250 (DPN: 411-001 and 471-058). The terms programmable and erasable refer to normal means of access available to the public. It does not include reverse-engineering or any other attempts to extract data from these devices. The content of this document is provided for information purposes only.

Volatile Memory

Type ¹	Size	User Accessible / System Accessible ²	Battery Backup?	Purpose	Method of Clearing ³
DRAM	256 MB	No / Yes	No	Stores waveform data and operating system	Remove AC Power
Microcontroller	512 B	No / No	No	Stores operating data for initialization	Remove AC Power
Power Supply SRAM	24.25 kb	No / Yes	No	Stores power supply state	Remove AC Power
DMM SRAM	76.34 kb	No / Yes	No	Stores DMM sample data and state	Remove AC Power
Scope Configuration	22 B	No / Yes	No	Stores MSO configuration information	Remove AC Power
FPGA SRAM	1456 kB	No / Yes	No	Instruction and data caches, operating system, configuration, and instrument data	Remove AC Power

¹ Calibration constants that are stored in device EEPROMs include information for the device's full operating range. Calibration constants do not maintain any unique data for specific configurations at which the device is used unless otherwise specified.

² Items are designated NO for the following reasons:

- a) Hardware changes or a unique software tool from National Instruments are required to modify contents of the memory listed.
- b) Hardware-modifying software tools are not distributed to customers for any personal access or customization, also known as non-normal use.

³ The designation *None Available to User* indicates that the ability to clear this memory is not available to the user under normal operation. The utilities required to clear the memory are not distributed by National Instruments to customers for normal use.

Non-volatile Memory

Type	Size	User Accessible / System Accessible	Battery Backup?	Purpose	Method of Clearing
NAND Flash	256 MB	No / Yes	N/A	Stores operating system, firmware, user settings, and calibration constants	None available to the user
Microcontroller Flash	8 kB	No / No	N/A	Stores initialization firmware and data	None available to the user
CPLD Flash	0.17 Mb	No / Yes	N/A	Stores firmware	None available to the user
CPLD Flash	0.33 Mb	No / Yes	N/A	Stores firmware and calibration constants	None available to the user

Clearing Notes: It is not currently possible to permanently clear any of the non-volatile memory on the device.

Terms and Definitions

User Accessible: Allows the user to directly write or modify the contents of the memory during normal instrument operation.

System Accessible: Does not allow the user to access or modify the memory during normal instrument operation. However, system accessible memory may be accessed or modified by background processes. This can be something that is not deliberate by the user and can be a background driver implementation, such as storing application information in RAM to increase speed of use.

Cycle Power: The process of completely removing power from the device and its components. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of the process.

Volatile Memory: Requires power to maintain the stored information. When power is removed from this memory, its contents are lost.

Non-volatile Memory: Retains its contents when power is removed. This type of memory typically contains calibration or chip configuration information, such as power up states.