Statement of Volatility

Latitude 7310

Regulatory Model: P33S and P34S
Regulatory Type: P33S001 and P34S001

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Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Latitude 7310 — Statement of Volatility

The Dell Latitude 7310 contains both volatile and non-volatile (NV) components. Volatile components lose their data immediately after power is removed from the component. Non-volatile (NV) components continue to retain their data even after power is removed from the component.

The following NV components are present on the Latitude 7310 system board.

Table 1. List of Non-Volatile components on system board

Description	Reference Designator	Volatility Description	User Accessible for external data	Remedial Action (Action necessary to prevent loss of data)
SSD drives.	M.2 - 2230	Non Volatile magnetic media, various sizes in GB. SSD (solid-state flash drive).	No	Low-level format
System BIOS/EC	UE1	Non-Volatile memory, 256 Mbit (16 MB), and Video BIOS for basic boot operation, PSA (on board diagnostics), PXE diagnostics.	No	Not applicable
Thunderbolt EEPROM	UT2	Non-Volatile memory, 8 Mbit (1 MB) (Thunderbolt FW)	No	Not applicable
USB-Type C Power Delivery	U6	Non-Volatile memory , 8 Mbit (1 MB) for USB type-C PD F/W	No	Not applicable
LCD Panel EEDID EEPROM	Part of panel assembly	Non-Volatile memory, Stores panel manufacturing information, display configuration data.	No	Not applicable
System Memory - DDR4 memory	Four pcs on board DDR4 memory: UD1, UD2, UD3, UD4, UD5, UD6, UD7, UD8	Volatile memory in OFF state (see state definitions later in text) Four pcs on board DDR4 memory. System memory size depends on chip size and must be between 4 GB. , 8 GB 16 GB, and 32 GB	Yes	Power off system
RTC CMOS	UC1 (PCH)	Non-Volatile memory 256 bytes Stores CMOS information	No	Not applicable
Video memory - frame buffer	For UMA platform: Using system memory	Volatile memory in off state. UMA uses main system memory size that is allocated out of main memory.	No	Power off system
Intel ME Firmware	Combine on BIOS ROM.	Non-Volatile memory, Intel ME firmware for	No	Not applicable

Table 1. List of Non-Volatile components on system board(continued)

Description	Reference Designator	Volatility Description	User Accessible for external data	Remedial Action (Action necessary to prevent loss of data)
		system configuration, security, and protection		
Security Controller Serial Flash Memory	U1 (upsell USH daughter board)	Non-Volatile memory, 128 Mbit (16 Mbyte)	No	Not applicable
TPM Controller	U Z12	Non-Volatile memory, 384 Kbytes.	No	Not applicable
ISH	Combine on BIOS ROM.		No	Not applicable
Touch screen Embedded Flash	N/A	Non-Volatile memory	No	Not applicable
Digital IMVP8 controller	PU602	Non-Volatile memory, 4096 bit (512 B) Digital IMVP8 controller	No	Not applicable
HDMI PROTOCOL CONVERTER SPI ROM	UV32	Non-Volatile memory (2M-bit)	No	Not applicable

NOTE: All other components on the system board lose data if power is removed from the system. Primary power loss (unplugging the power cable and removing the battery) destroys all user data on the memory (LP DDR3, 2133 MHz), system data on the system configuration and time-of-day information.

In addition, to clarify memory volatility and data retention in situations where the system is put in different ACPI power states the following is provided (those ACPI power states are S0, Modern standby, S4 and S5):

- **S0** state is the working state where the dynamic RAM is maintained and is read/write by the processor. Modern standby is a standby mode state that is different from S3 mode. In this state, the dynamic RAM is maintained.
- **S4** is called "suspend to disk" state or "hibernate" mode. There is no power. In this state, the dynamic RAM is not maintained. If the system has been commanded to enter S4, the operating system writes the system context to a non-volatile storage file and leave appropriate context markers. When the system is coming back to the working state, a restore file from the non-volatile storage can occur. The restore file has to be valid. Dell systems can go to S4 if the operating system and the peripherals support S4 state. Win 7 and Win 8 support S4 state.
- **S5** is the "soft" off state. There is no power. The operating system does not save any context to wake up the system. No data remains in any component on the system board, that is cache or memory. The system requires a complete boot when awakened. Since S5 is the shut off state, coming out of S5 requires power-on which clears all registers.

The following table shows all the states that are supported by Latitude 7310:

Table 2. List of states supported by Latitude 7310

Model Number	S0	Modern standby	S4	S5
Latitude 7310	✓	✓	✓	✓