Statement of Volatility – Dell Latitude 7320 Detachable

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

The Dell Latitude 7320 Detachable contains both volatile and non-volatile components. Volatile components lose their data immediately after power is removed from the component. Non-volatile components continue to retain their data even after power is removed from the component. The following Non-volatile components are present on the Latitude 7320 Detachable 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)
LCD Panel EEDID EEPROM	Part of panel assembly	Non-Volatile memory, stores panel manufacturing information and display configuration data.	No	Part of panel assembly
System BIOS/EC	UC2 (32 MB)	Non-Volatile memory, 256 MB (32 MB), System BIOS, Embedded controller and Video BIOS for basic boot operation, PSA (on board diags), PXE diags.	No	NA
System Memory – LPDDR4x on-board memory	Memory down LPDDR4x memory: UD1; UD2	Volatile memory in OFF state System memory size will depend on LPDDR4x, 4 GB/8 GB/16 GB (x64) per package	No	Power off system
RTC CMOS – BBRAM (battery backed up)	Inside battery pack BATT1 (RTC pin)	Non-Volatile memory 256 bytes Stores CMOS information	No	Remove the on-board coin cell and replace it from battery LDO
Video memory – frame buffer	For UMA platform: Using system memory	Volatile memory in off state. UMA uses main system memory size allocated out of main memory.	No	Power off system
ISH	Combine on BIOS ROM		No	N/A
SSD drive (s)	M.2 - 2230	Non-Volatile magnetic media, various sizes in GB. SSD (solid state flash drive)	Yes	N/A
TPM Controller	UZ2	Non-Volatile memory, 192 K bits (24 K bytes) ROM	No	N/A
TYPE C PD FW	Combine on BIOS ROM	128 KB of embedded Flash memory for PD controller	No	N/A
Thunderbolt Re-timer FW	UT2 UT5	Non-Volatile memory, 64 Mbit (8 MB), Thunderbolt/type C operation	No	N/A

⚠ **CAUTION: All other components on the system board lose data if power is removed from the system. Primary power loss (unplugging the power cord and removing the battery) destroys all user data on the memory (DDR4, 2933/3200 MHz-XMP configuration). Secondary power loss (removing the on-board coin-cell battery) destroys 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, S1/S3 (Linux only), S4, and S5):

S0 state is the working state, where the dynamic RAM is maintained and is read/write by the processor.

S1 state is a low wake-up latency sleeping state. In this state, no system context is lost (CPU or chipset) and hardware maintains all system contexts.

S3 is called suspend to RAM state or stand-by mode. In this state the dynamic RAM is maintained. Dell systems will be able to go to S3 if the operating system and the peripherals used in the system supports S3 state. Windows 8 support S3 state.

S4 is called suspend to disk state or hibernate mode, with 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 comes back to the working state, a restore file from the non-volatile storage can occur. The restore file must be valid. Dell systems will be able to go to S4 if the operating system and the peripherals support S4 state. Windows 8 support S4 state.

S5 is the soft off state, with no power. The operating system does not save any context to wake up the system. No data will remain 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 supported by Dell Latitude 7320 Detachable:

Model Number	S0	S1/S3 (Linux OS only)	Modern Standby	S4	S5
Dell Latitude 7320 Detachable	V	X	V	V	V

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