



Date: January 03, 2018

Subject: Statement of Volatility – Dell Inspiron 3052

To whom it may concern:

The Dell Inspiron 3052 contains both “volatile” and “non-volatile” (NV) components. Volatile components lose their data immediately upon removal of power from the component. Non-volatile components continue to retain their data even after the power has been removed from the component. The following volatile and NV components are present on the Dell Inspiron 3052 motherboard:

Description	Reference Designator	Volatility Description	User Accessible for external data	Remedial Action (action necessary to lose data)
Embedded Flash memory in embedded controller ITE8739	U15	1Mbit in non-volatile memory	No	N/A
System BIOS	U8	Non Volatile memory, 64Mbit (8MB), System BIOS and Video BIOS for basic boot operation, PSA (on board diags.)	No	N/A
EDID EEPROM	U25	64Kbytes in non-volatile memory, which stores EDID Information & DP firmware.	No	N/A
System Memory – DDR3L DIMM memory	Connectors :DIMM1,	Volatile memory in OFF state (see state definitions later in text) One or two modules will be populated. System memory size will depend on DIMM modules and will be between 2GB to 8GB.	No	Power off system N/A
Video memory – type – see next column	UMA architecture-uses system DDR3L.	Volatile memory in off state. UMA uses main system memory size allocated out of main memory.	No	Enter S3-S5 state below.
	dGPU architecture-uses DDR3: MEM1 MEM2 MEM3 MEM4	2GB Volatile memory in off state.		
RTC CMOS	BATTERY	Volatile Battery back-backed CMOS memory 256 bytes Stores CMOS information	No	Removing the on board Coin Cell battery

Description	Reference Designator	Volatility Description	User Accessible for external data	Remedial Action (action necessary to lose data)
Hard drive	User replaceable	Non Volatile magnetic media, various sizes in GB	Yes	Low level format
<u>CD-ROM/RW/</u> <u>DVD/</u> <u>DVD+RW/</u> <u>Diskette</u> <u>Drives</u>	User replaceable	Non Volatile optical/magnetic media	Yes	Low level format / erase

All other components on the motherboard will lose data once power is removed from the system. Primary power loss (Unplug the power cord and remove the battery) will destroy all user data on the memory (DDR3L, 1600/1333MHz). Secondary power loss (removing the on board coin cell battery) will destroy 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, 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 chip set) 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 OS and the peripherals used in the system supports S3 state.

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 OS will write 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 will be able to go to S4 if the OS and the peripherals support S4 state.

S5 is the "soft" off state. There is no power. The OS does not save any context to wake up the system. No data will remain in any component on the system board, i.e. cache or memory. The system will require 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 Inspiron 3052

Model Number	S0	S1	S3	S4	S5
Dell Inspiron 3052	X		X	X	X

Please direct any questions to your Dell Marketing contact.

Sincerely,

Dell Marketing

DELL CONFIDENTIAL