

Statement of Volatility – Dell Pro Essential Micro PVM1265

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

The [Dell Pro Essential Micro PVM1265](#) contains both volatile and non-volatile components. Volatile components erase 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 [Dell Pro Essential Micro PVM1265](#) 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 erase data)
SSD drive(s)	M.2 – 2280/30 SSD1 and SSD2	Non-Volatile magnetic media, various sizes in GB. SSD (solid state flash drive).	Yes	Low level format
System BIOS/EC	U2501 (32 MB) - Non RPMC	Non-Volatile memory, 256Mbits(32MB), System BIOS and Video BIOS for basic boot operation, ePSA (on board diags), PXE diags.	No	Not applicable
System Memory – DDR5 memory	Two SOIMM on board DDR5 memory: DM1/DM2	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 8GB to 64GB.	Yes	Power off system
System memory SPD EEPROM	On memory DIMM(s)	Non-volatile EEPROM memory. 512 bytes. One Device present on each DIMM. Stores memory manufacturer data and timing information for correct operation of system memory.	No	Not applicable
RTC CMOS	BATTERY BT1	Non-Volatile memory 256 bytes Stores CMOS information	No	Removing the on-board Coin Cell battery.
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	Enter MODS-S5 state below
Embedded Flash memory in embedded controller NUVOTON NPCX993DB0BX	U2401	The two SRAM blocks in the NPCX993DB0BX, in total 256KB. The NPCX993DB0BX contains a 64KB block of ROM. EC uses 1 MB with SPI ROM by G3 sharing mode.	No	Not applicable
TPM Controller NPCT760JAEYX	U9101	Non-Volatile memory, 192K bits (24K bytes) ROM	No	Not applicable

⚠ CAUTION: All other components on the system board lose data if power is removed from the computer. Primary power loss (unplugging the power cable and removing the battery) destroys all user data on the memory. Secondary power loss (removing the onboard coin-cell battery) destroys system data on the system configuration and time-of-day information.

Power-state definitions

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, MODS, 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 (processor or chip set) and hardware maintains all system contexts.
- MODS is called “suspend to RAM” state or stand-by mode. In this state the dynamic RAM is maintained. Dell computers will be able to go to MODS if the OS and the peripherals used in the system supports MODS state. Linux and Windows11 support MODS state.
- **S3** is called *suspend to RAM* state or stand-by mode. The S3 sleeping state is a low wake latency sleeping state. This state is similar to the S1 sleeping state except that the CPU and system cache context is lost (the OS is responsible for maintaining the caches and CPU context). Control starts from the processor's reset vector after the wake event. In NCR systems, during S3, power is only provided to the USB 3.0 ports.
- **S4** is called *suspend to disk* or *hibernate* mode. There is no power. In this state, the dynamic RAM is not maintained. If the computer 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 must be valid. Dell systems will be able to go to S4 if the OS and the peripherals support S4 state. Windows 11 support S4 state.
- **S5** is the *soft-off* state and 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, for example, cache or memory. The computer requires a complete boot when awakened. Since S5 is the shut off state, coming out of S5 requires power-on which clears all registers.

Table 2. Power states supported by Dell Pro Essential Micro PVM1265

Computer model	S0	S1	MODS	S4	S5
Dell Pro Essential Micro PVM1265	Supported	Not supported	Supported	Supported	Supported