

Statement of Volatility – Dell Pro 24 All-in-One QC24250

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

The Dell Pro 24 All-in-One QC24250 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 24 All-in-One QC24250 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)	SSD1, SSD2	Non-Volatile magnetic media, various sizes in GB. SSD (solid state flash drive).	No	Low level format
System BIOS/EC Firmware	U2504 (32 MB), U2501 (16 MB)	Non-Volatile memory, Video BIOS for basic boot operation, PSA (on board diagnostics), PXE diagnostics.	No	N/A
Scalar Firmware	U5503	Non-Volatile memory, 16 Mbit (2 MB) for Scalar.	No	N/A
HDCP KEY	U5504	Non-Volatile memory, 32 Kbit for HDCP KEY.	No	N/A
LCD Panel EDID	U5505	Non-Volatile memory, 2 Kbit for stores panel manufacturing information, display configuration data.	No	N/A
LOM Serial Flash Memory	U9702	Non-Volatile memory, WOL settings, PXE settings.	No	N/A
System Memory – DDR5 memory	DM5, DM6	Volatile memory in OFF state (see state definitions later in text)	Yes	Power off system
RTC CMOS	BT1	Non-Volatile memory 256 bytes. Stores CMOS information.	No	Remove the coin cell battery on board.
Video memory – frame buffer	N/A	Volatile memory in off state.	No	Power off system
Intel ME Firmware	Combine on BIOS ROM	Non-Volatile memory, Intel ME firmware for system configuration, security, and protection.	No	N/A
TPM Controller (NUVOTON NPCT760JABYX)	U9101	Non-Volatile memory, 32 KB ROM.	No	N/A
ISH	Combine on BIOS ROM		No	N/A

⚠ CAUTION: All other components on the system board erase data if power is removed from the system. Primary power loss (unplugging the power cord) destroys all user data on the memory. Secondary power loss (removing the 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, 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 computer context is lost (CPU 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 systems 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. In this state, the dynamic RAM is maintained. Dell computers will be able to go to S3 if the operating system and the peripherals that are used with the computer supports the S3 state. Windows 10 and Windows 11 support the 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 computer has been commanded to enter S4, the operating system will write the system context to a non-volatile storage file and leave appropriate context markers. When the computer is coming back to the working state, a restore file from the nonvolatile storage can occur. The restore file must be valid. Dell computers will be able to go to S4 if the operating system and the peripherals support S4 state. Windows 10 and Windows 11 support the 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 will remain in any component on the system board, i.e. cache or memory. The computer 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 that are supported by Dell Pro 24 All-in-One QC24250:

Model Number	S0	S1	MODS	S4	S5
Dell Pro 24 All-in-One QC24250	X		X	X	X