# DELL Technologies

# Statement of Volatility – Dell Pro Slim QCS1250

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

The Dell Pro Slim QCS1250 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 Slim QCS1250 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) |
|---|---|---|---|---|
| Embedded Flash memory in embedded controller Microchip DEC1547H-D0-I | U2403 | 320 Kb Code/Data SRAM (240 KB for code, 80 KB for data) 64 bytes battery-powered storage SRAM. 4 Kb OTP | No | Not applicable |
| System BIOS | U2501 | Non-volatile memory, 256 Mb (32 MB), System BIOS and Video BIOS for basic boot operation, ePSA (on-board diagnostics.) | No | Not applicable |
| | U2502 | Non-volatile memory, 128 Mb (16 MB), System BIOS and Video BIOS or basic boot operation, ePSA (on-board diagnostics). | No | Not applicable |
| | U2504 | Non-volatile memory, 256 Mb (32 MB), System BIOS and Video BIOS for basic boot operation, ePSA (on-board diagnostics). | No | Not applicable |
| System memory – DDR5 DIMM memory | Connectors: DIMM1, DIMM2 | Volatile memory in OFF state. One to four modules will be populated. System memory size will depend on DIMM modules and the total will be between 8 GB and 64 GB. | Yes | Power off system |
| System memory SPD EEPROM | On memory DIMM | Non-volatile EEPROM memory. One Device present on each DIMM. Stores memory manufacturer data and timing information for correct operation of system memory. | No | Not applicable |
| TPM | U9101 | 32 KB non-volatile memory located in the TPM module. | No | Not applicable |
| RTC CMOS | RTC | Volatile battery back-backed CMOS memory 256 bytes. Stores CMOS information. | No | Removing the coin-cell battery. |
| Video memory – type – see next column | UMA architecture-uses system memory. | Volatile memory in off state. UMA uses main system memory size allocated out of main memory. | No | Enter MODS-S5 state below. |
| M.2 Solid State Disk | User replaceable | Non-volatile magnetic media, various sizes in GB. | Yes | Low level format |
| Hard drive | User replaceable | Non-volatile magnetic media, various sizes in GB. | Yes | Low level format |
| CD-ROM/RW/ DVD/ DVD+RW/ Diskette Drives | User replaceable | Non-volatile optical/magnetic media. | Yes | Low level format/erase |

⚠ 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, MODS, 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.

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.

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. Windows 11 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 Pro Slim QCS1250:

| Model Number | S0 | S1 | MODS | S4 | S5 |
|---|---|---|---|---|---|
| Dell Pro Slim QCS1250 | X |  | X | X | X |