

Statement of Volatility – Dell Latitude 7340

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

The Dell Latitude 7340 contains both volatile and non-volatile (NV) components. Volatile components lose their data immediately after power is removed from the component. Non-volatile (NV) components continue to retain their data even after power is removed from the component. The following NV components are present on the Latitude 7340 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 | M.2 – 2230 | Non Volatile memory, various sizes in GB. SSD (solid state flash drive). | Yes | Low level format |
| Embedded Flash in embedded controller MEC5200 | U2401 | 288 KB of embedded Flash memory | No | NA |
| System BIOS/EC | U2501 (64MB) | Non Volatile memory, System BIOS, embedded controller and Video BIOS for basic boot operation, PSA (on board diags), PXE diags. | No | NA |
| Thunderbolt EEPROM | U7103 (1MB) | Non Volatile memory | No | NA |
| System memory -LPDDR5 | RAM1, RAM2, RAM3, RAM4 (8GB ~ 64GB) | Volatile memory in OFF state (see state definitions later in text) | No | Power off system |
| RTC CMOS | CPU1 (PCH) | Non Volatile memory 256 bytes Stores CMOS information | No | Remove the onboard coin cell battery |
| Security Controller Serial Flash Memory | U1 (up-sell USH daughter board) | Non Volatile memory, 128 Mbit (16Mbyte) | No | N/A |
| TPM Controller | U9101 | Non Volatile memory, 384K bits | No | N/A |
| Digital IMVP9.1 controller | PU4601 | Non Volatile memory, 232bits Digital IMVP9.1 controller (Total 29 index , each index 8 bits.) | 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 and removing the battery) destroys all user data on the memory (DDR4, 2667 MHz). 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, S4, S5 and Modern Standby):

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

Modern Standby is a standby mode state that is different from S3 mode. In this state, the dynamic RAM is maintained.

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 11/10/8.1/7 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.

Table 2. The following table shows all the states supported by Dell Latitude 7340:

| Model Number | S0 | Modern standby | S4 | S5 |
|---------------------|-----------|-----------------------|-----------|-----------|
| Dell Latitude 7340 | v | v | v | v |