

Lenovo ThinkStation

P340 Tower and P340 SFF Memory Configurator

Lenovo



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Overview

The purpose of this document is to provide guidelines for users on how to optimally configure the system memory in the ThinkStation P340 Tower and P340 SFF platforms in order to provide the best performance.

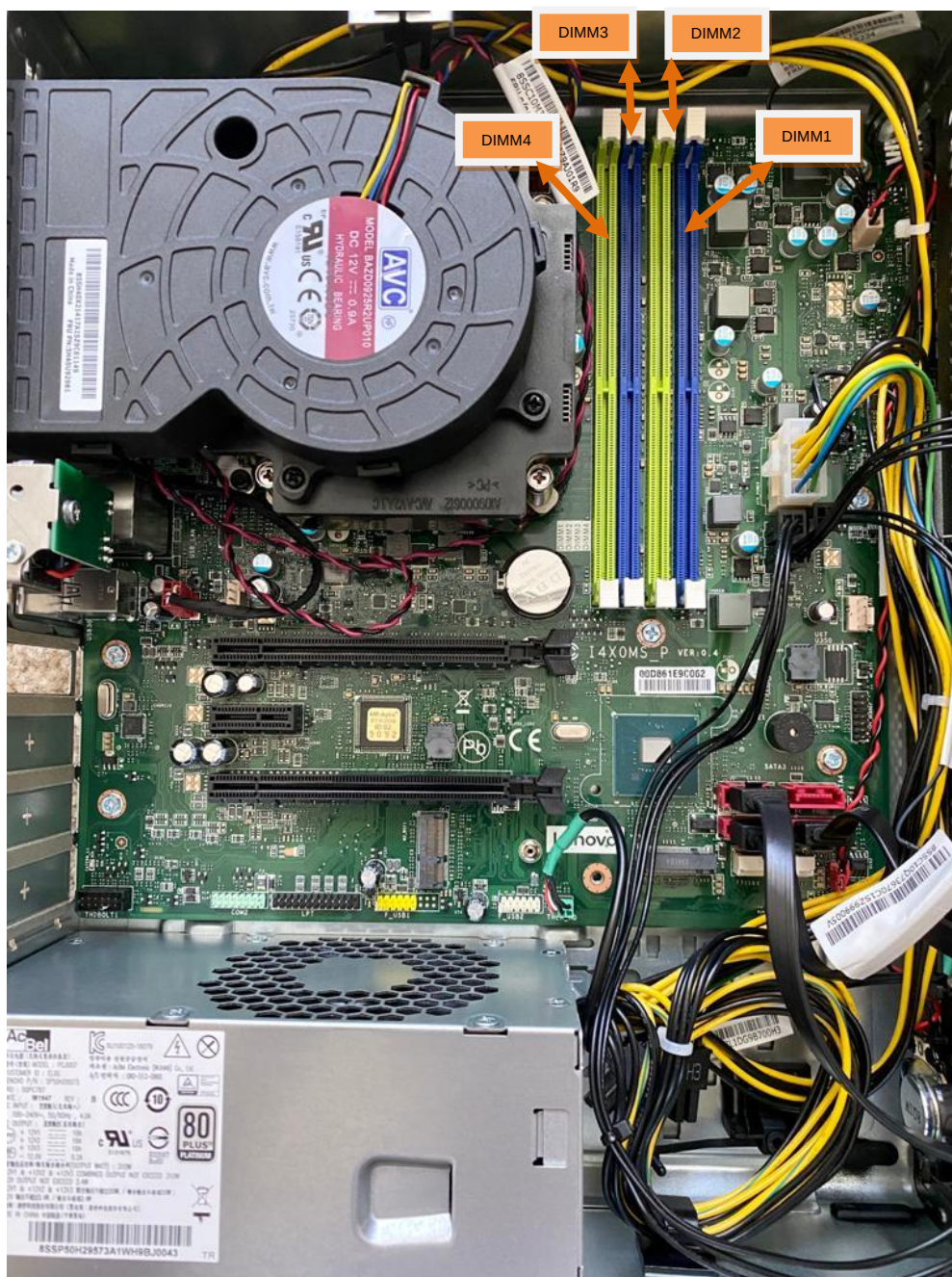
Section 1 – Platform Memory Architecture

The launch of the Intel Comet Lake platform brings with it some important updates to the memory system architecture. The main new feature is a higher top supported memory bus speed, which provides increased memory performance and bandwidth. Both ThinkStation P340 Tower and P340 SFF can take advantage of this improvement.

Section 2 – P340 Memory Configurations

The ThinkStation P340 is Lenovo's newest mainstream single CPU workstation. The platform has a total of 4 DIMM slots with a top supported memory bus speed of 2933MHz. The P340 takes full advantage of the 2 memory channels offered by the Intel Comet Lake Xeon and Comet Lake Core CPUs and supports a 2-DIMM-per-channel design. This allows the P340 to offer incredible memory capacity at a top supported memory bus speed of 2933MHz. *Figure 1* below shows a visual reference of the DIMM slot layout for the P340 platform.

Figure 1 - P340 Tower/SFF Motherboard DIMM Layout



The following guidelines are recommended by Lenovo for obtaining the best memory bandwidth from your P340 when filling DIMM slots:

- For optimal memory bandwidth, Lenovo recommends filling DIMM slots in multiples of 2 DIMMs or 4 DIMMs to fully take advantage of all 2 memory channels. Utilizing all 4 DIMM slots should yield maximum memory bandwidth performance.
- DIMM slots should be filled in the order listed in Figure 2.
- If using mixed capacity memory, fill DIMM slots in numerical order starting with the largest DIMMs first.

Figure 2 - P340 Tower/SFF Slot Fill Order Recommendations

# of DIMMs	DIMM slots used
1 DIMM	DIMM slot 2
2 DIMMs	DIMM slot 2, DIMM slot 4
3 DIMMs	DIMM slot 2, DIMM slot 4, DIMM slot 1
4 DIMMs	DIMM slot 2, DIMM slot 4, DIMM slot 1, DIMM slot 3

Section 3 – Document Revision History

Version	Date	Author	Updates
1.0	06/09/2020	Sayali Pawar	Initial launch release