Advantech AE Technical Share Document

Date	2023/06/02	Release Note	□ Internal ■ External
Category	■FAQ □SOP	Related OS	N/A
Abstract	Memory Support on Alder Lake and Raptor Lake Platforms		
Keyword	DDR5, Memory, DIMM, 5600 MT/s, 5200 MT/s, 4800 MT/s, 4400 MT/s		
Related Product	ASMB-788, ASMB-588, ASMB-610V3		

■ **Problem Description:**

We've met several customer who queried about the memory support for 5600 MT/s, 5200 MT/s, 4800 MT/s, 4400 MT/s, and 4000 MT/s on ASMB-788, ASMB-588, and ASMB-610V3 motherboards. This document indicates how to select compatible memory configuration with correct frequency support.

■ **Memory Configurations with Different Frequency:**

Below table from Intel datasheet indicates DDR support matrix table for Alder Lake and Raptor Lake platform. We uses 2DPC (2 DIMM Per Channel) design for ASMB-788, ASMB-588, and ASMB-610V3 motherboards.

4800 MT/s or Higher

Only available for motherboard with 1DPC design, which is NOT supported.

4400 MT/s

Maximum frequency can be supported when installing 1 DIMM per channel, total 2 DIMMs installed on DIMMA1 & DIMMB1 slots.

4000 MT/s

Maximum frequency can be supported when installing 2 x 1R DIMM per channel, total 4 DIMMs on motherboard.

3600 MT/s

Maximum frequency can be supported when installing 2 x 2R DIMM per channel, total 4 DIMMs on motherboard.