

HX421C13SB/4

4GB 512M x 64-Bit

DDR4-2133 CL13 288-Pin DIMM

**DESCRIPTION**

HyperX HX421C13SB/4 is a 512M x 64-bit (4GB) DDR4-2133 CL13 SDRAM (Synchronous DRAM) 1Rx8, memory module, based on eight 512M x 8-bit FBGA components. Each module supports Intel® XMP (Extreme Memory Profiles). Each module has been tested to run at DDR4-2133 at a low latency timing of 13-13-13 at 1.2V. The SPDs are programmed to JEDEC standard latency DDR4-2133 timing of 15-15-15 at 1.2V. Each 288-pin DIMM uses gold contact fingers. The JEDEC standard electrical and mechanical specifications are as follows:

XMP TIMING PARAMETERS

- JEDEC: DDR4-2133 CL15-15-15 @1.2V
- XMP Profile #1: DDR4-2133 CL13-13-13 @1.2V

SPECIFICATIONS

CL(IDD)	15 cycles
Row Cycle Time (tRCmin)	46.5ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	33ns (min.)
Maximum Operating Power	TBD W*
UL Rating	94 V - 0
Operating Temperature	0° C to +85° C
Storage Temperature	-55° C to +100° C

*Power will vary depending on the SDRAM used.

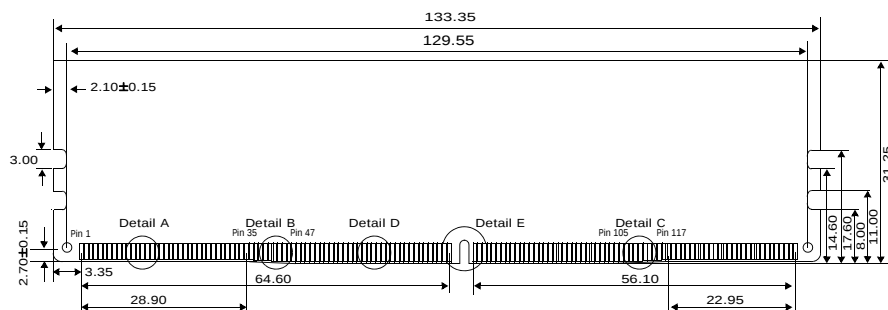
FEATURES

- Power Supply: VDD = 1.2V Typical
- VDDQ = 1.2V Typical
- VPP - 2.5V Typical
- VDDSPD = 2.25V to 3.6V
- On-Die termination (ODT)
- 16 internal banks; 4 groups of 4 banks each
- Bi-Directional Differential Data Strobe
- 8 bit pre-fetch
- Burst Length (BL) switch on-the-fly BL8 or BC4(Burst Chop)
- Height 1.36" (34.57mm)

Continued >>

Technical drawing of the HyperX Savage DDR4 memory module. The drawing shows the top and side views. The top view is a rectangle with dimensions 133.35 mm (length) and 34.57 mm (height). The module features the HyperX logo and "SAVAGE DDR4" text. The side view shows the module's profile with a height of 7.90 mm.

A diagram of a 28-pin SIMM module. It is a dark grey rectangular component with a gold-plated edge connector at the bottom. The connector has two rows of pins, with a notch in the middle. On the top surface, there are eight large square chips arranged in two groups of four, and a single small square chip in the center between the two groups. A notch is visible on the left side of the module.



All Kingston products are tested to meet our published specifications. Some motherboards or system configurations may not operate at the published HyperX memory speeds and timing settings. Kingston does not recommend that any user attempt to run their computers faster than the published speed. Overclocking or modifying your system timing may result in damage to computer components.