# Memory Module Specifications



# HX432S20IB/32

32GB 4G x 64-Bit DDR4-3200 CL20 260-Pin SODIMM



## **SPECIFICATIONS**

CL(IDD)	20 cycles
Row Cycle Time (tRCmin)	45.75ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns (min.)
Row Active Time (tRASmin)	26.25ns (min.)
UL Rating	94 V - 0
Operating Temperature	0°C to 85°C
Storage Temperature	-55°C to +100°C

## **DESCRIPTION**

HyperX HX432S20IB/32 is a 4G x 64-bit (32GB) DDR4-3200 CL20 SDRAM (Synchronous DRAM) 2Rx8, memory module, based on sixteen 2G x 8-bit DDR4 FBGA components. Each module supports Intel® Extreme Memory Profiles (Intel® XMP) 2.0. This module has been tested to run at DDR4-3200 at a low latency timing of 20-22-22 at 1.2V. Additional timing parameters are shown in the PnP Timing Parameters section below. The JEDEC standard electrical and mechanical specifications are as follows:

**Note:** HyperX DDR4 PnP memory will run in most DDR4 systems up to the speed allowed by the manufacturer's system BIOS. PnP cannot increase the system memory speed faster than is allowed by the manufacturer's BIOS.

#### **FEATURES**

- Power Supply: VDD = 1.2V Typical
- VDDQ = 1.2V Typical
- VPP = 2.5V Typical
- VDDSPD = 2.2V 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 1.18" (30.00mm)

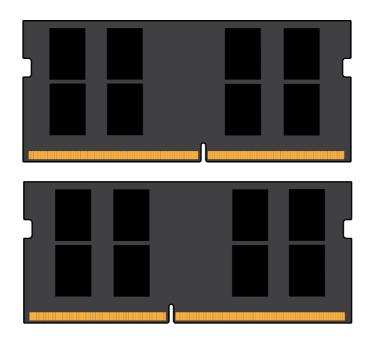
# PnP JEDEC TIMING PARAMETERS:

JEDEC/PnP: DDR4-3200 CL20-22-22 @1.2V
XMP Profile #1: DDR4-3200 CL20-22-22 @1.2V
XMP Profile #2: DDR4-2933 CL17-19-19 @1.2V

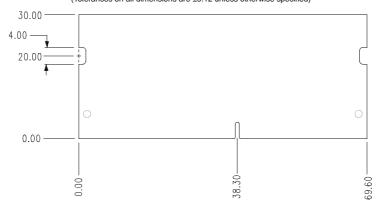
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# **MODULE DIMENSIONS**



All measurements are in millimeters. (Tolerances on all dimensions are  $\pm 0.12$  unless otherwise specified)





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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.