

## **HX316LS9IB/8**

8GB 1G x 64-Bit DDR3L-1600 CL9 204-Pin SODIMM



#### **DESCRIPTION**

HyperX HX316LS9IB/8 is a 1G x 64-bit (8GB) DDR3L-1600 CL9 SDRAM (Synchronous DRAM) 2Rx8, low voltage, memory module, based on sixteen 512M x 8-bit DDR3 FBGA components. This module has been tested to run at DDR3L-1600 at a low latency timing of 9-9-9 at 1.35V or 1.5V. Additional timing parameters are shown in the PnP Timing Parameters section below. The JEDEC standard electrical and mechanical specifications are as follows:

**Note:** The PnP feature offers a range of speed and timing options to support the widest variety of processors and chipsets. Your maximum speed will be determined by your BIOS.

#### PnP JEDEC TIMING PARAMETERS:

- DDR3-1600 CL9-9-9 @1.35V or 1.5V
- DDR3-1333 CL8-8-8 @1.35V or 1.5V
- DDR3-1066 CL6-6-6 @1.35V or 1.5V

### **SPECIFICATIONS**

CL(IDD)	9 cycles
Row Cycle Time (tRCmin)	48.125ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	33.75ns (min.)
Maximum Operating Power	TBD W* @1.35V
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

<sup>\*</sup>Power will vary depending on the SDRAM used.

### **FEATURES**

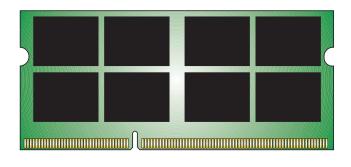
- JEDEC standard 1.35V (1.28V ~ 1.45V) and 1.5V (1.425V ~ 1.575V) Power Supply
- VDDQ = 1.35V (1.28V ~ 1.45V) and 1.5V (1.425V ~ 1.575V)
- 800MHz fCK for 1600Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL 2, or CL 1 clock
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- Bi-directional Differential Data Strobe
- Internal(self) calibration: Internal self calibration through ZQ pin (RZQ: 240 ohm ± 1%)
- On Die Termination using ODT pin
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE ≤ 95°C</li>
- Asynchronous Reset
- PCB: Height 1.180" (30.00mm), double sided component

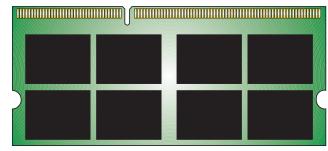
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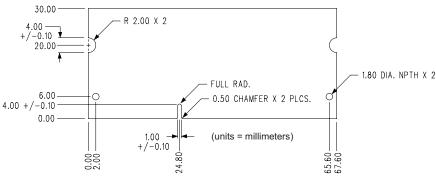
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# **MODULE DIMENSIONS**









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