

## HX316C10F/4

4GB 512M x 64-Bit DDR3-1600 CL10 240-Pin DIMM



DESCRIPTION

HyperX HX316C10F/4 is a 512M x 64-bit (4GB) DDR3-1600 CL10 SDRAM (Synchronous DRAM) 1Rx8 memory module, based on eight 512M x 8-bit DDR3 FBGA components. This module has been tested to run at DDR3-1600 at a low latency timing of 10-10-10 at 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 CL10-10-10 @1.5V
- DDR3-1333 CL9-9-9 @1.5V
- DDR3-1066 CL7-7-7 @1.5V

## **SPECIFICATIONS**

CL(IDD)	10 cycles
Row Cycle Time (tRCmin)	48.125ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	37.5ns (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

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

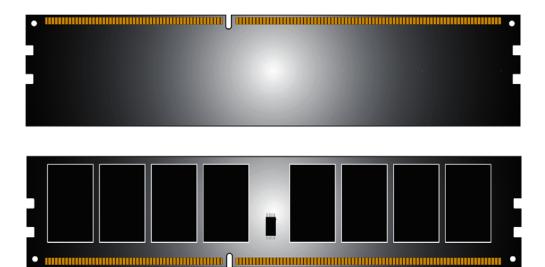
## **FEATURES**

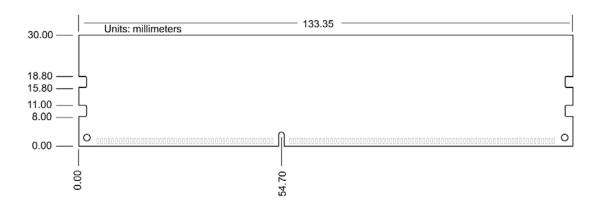
- JEDEC standard 1.5V (1.425V ~1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 800MHz fCK for 1600Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL 2, or CL 1 clock
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without 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), single sided component

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continued HyperX

# **MODULE DIMENSIONS**





# **MODULE WITH HEAT SPREADER**



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