HYPERX HX316LC10FB/4 4GB 512M x 64-Bit DDR3L-1600CL10 240-Pin DIMM PC RAM User Guide

Contents

HYPERX HX316LC10FB/4 4GB 512M x 64-Bit DDR3L-1600CL10 240-Pin DIMM PC RAM

DESCRIPTION

HyperX HX316LC10FB/4 is a 512M x 64-bit (4GB) DDR3L-1600 CL10 SDRAM (Synchronous DRAM) 1Rx8, low voltage, memory module, based on eight 512M x 8-bit DDR3 FBGA components. Each module kit supports Intel® Extreme Memory Profiles (Intel® XMP) 2.0. This module has been tested to run at DDR3L-1600 at a low latency timing of 10-10-10 at 1.35V. Additional timing parameters are shown in the PnP Timing Parameters section below. The JEDEC standard electrical and mechanical specifications areas 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

- **JEDEC/PnP:** DDR3L-1600 CL10-10-10 @1.35V/1.5V DDR3L-1333 CL9-9-9 @1.35V/1.5V DDR3L-1066 CL7-7-7 @1.35V/1.5V
- **XMP Profile #1:** DDR3L-1600 CL10-10-10 @1.35V

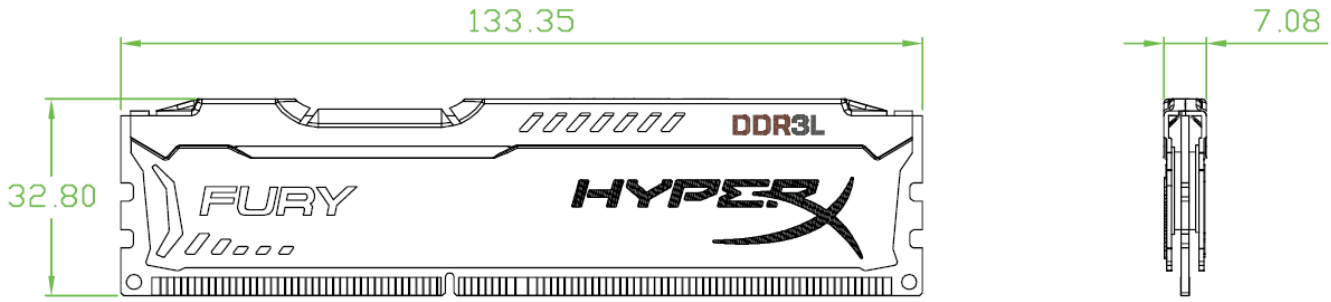
SPECIFICATIONS

- CL(IDD) 10 cycles
- Row Cycle Time (tRCmin) 48.125ns (min.)
- Refresh to Active/Refresh 260ns (min.)
- Command Time (tRFCmin)
- Row Active Time (tRASmin) 37.5ns (min.)
- Maximum Operating Power TBD W*
- UL Rating 94 V – 0
- Operating Temperature 0o C to 85o C
- Storage Temperature -55o C to +100o C

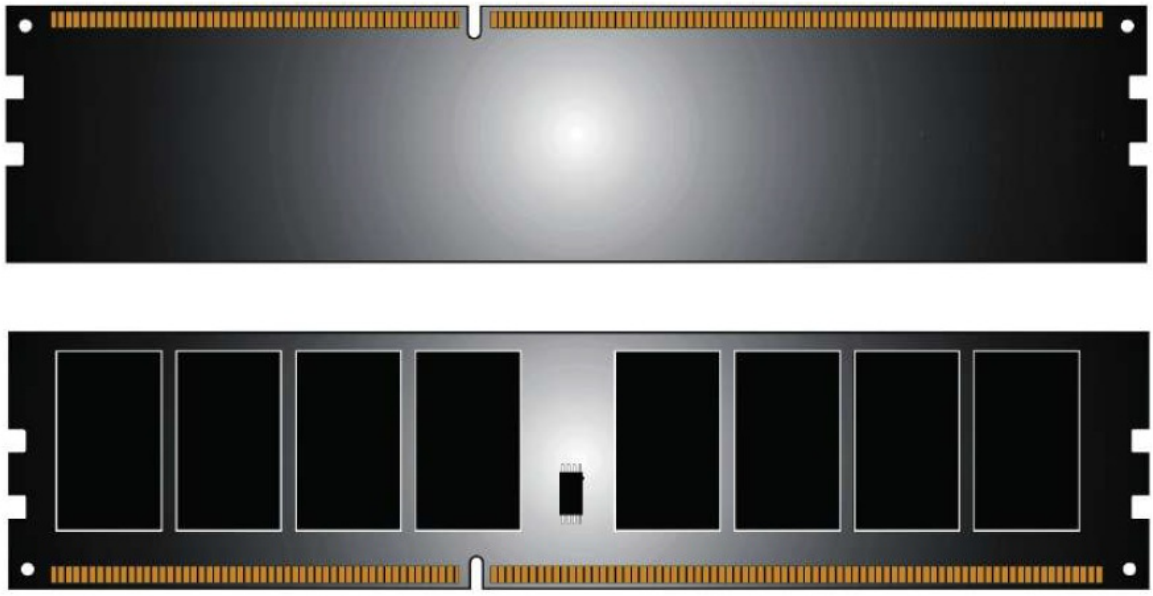
FEATURES

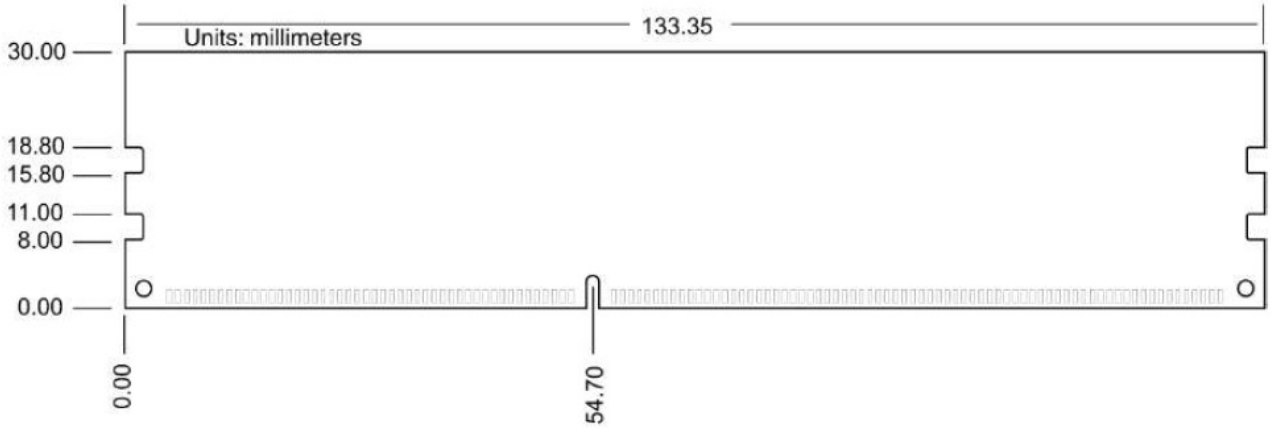
- JEDEC standard 1.35V and 1.5V Power Supply
- VDDQ = 1.35V and 1.5V
- 800MHz fCK for 1600Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL – 2, or CL – 1 clock
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, 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
- Asynchronous Reset
- Height 1.291” (32.80mm) w/heatsink, single sided component

MODULE WITH HEAT SPREADER



MODULE DIMENSIONS





FOR MORE INFORMATION, GO TO HYPERXGAMING.COM

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.

HyperX is a division of Kingston.

Documents / Resources

	HYPERX HX316LC10FB/4 4GB 512M x 64-Bit DDR3L-1600CL10 240-Pin DIMM PC RAM [pdf] User Guide HX316LC10FB 4 4GB 512M x 64-Bit DDR3L-1600CL10 240-Pin DIMM PC RAM, HX316LC10FB 4, 4GB 512M x 64-Bit DDR3L-1600CL10 240-Pin DIMM PC RAM, DIMM PC RAM, PC RAM

References

- HyperX | High Quality Gaming Gear