KHX18C10/8

8GB 1G x 64-Bit DDR3-1866
CL10 240-Pin DIMM

SPECIFICATIONS

CL(IDD)	11 cycles
Row Cycle Time (tRCmin)	48.125ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	35ns (min.)
Maximum Operating Power	3.924 W*
UL Rating	94 V - 0
Operating Temperature	0º C to 85º C
Storage Temperature	-55º C to +100º C

*Power will vary depending on the SDRAM used.

DESCRIPTION

This document describes Kingston's 1G x 64-bit (8GB) DDR3-1866 CL10 SDRAM (Synchronous DRAM) 2Rx8 memory module, based on sixteen 512M x 8-bit DDR3 FBGA components. This module supports **Intel® XMP** (Extreme Memory Profiles). This module has been tested to run at DDR3-1866 at a low latency timing of 10-11-10 at 1.5V. The SPD is programmed to JEDEC standard latency DDR3-1600 timing of 11-11-11 at 1.5V. This 240-pin DIMM uses gold contact fingers and requires +1.5V. The JEDEC standard electrical and mechanical specifications are as follows:

XMP TIMING PARAMETERS

- JEDEC: DDR3-1600 CL11-11-11 @1.5V
- XMP Profile #1: D3-1866 CL10-11-10 @1.5V
- XMP Profile #2: D3-1600 CL9-9-9 @1.5V

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

- Asynchronous Reset

- PCB : Height 1.180" (30.00mm), double sided component

MODULE DIMENSIONS

Units: millimeters

133.35

30.00

18.80
15.80

11.00
8.00

0.00

0.00

54.70
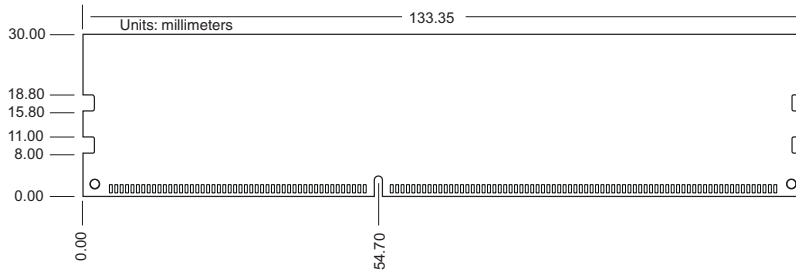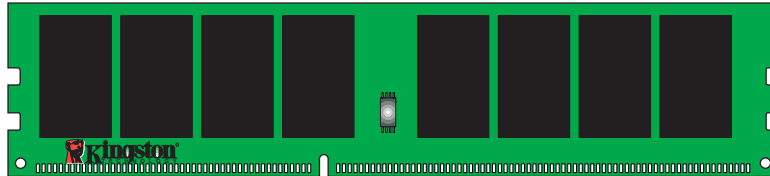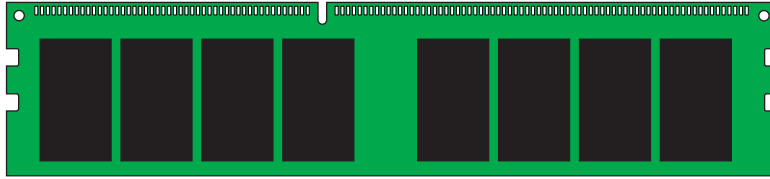
MODULE WITH HEAT SPREADER

FOR MORE INFORMATION, GO TO WWW.KINGSTON.COM/HYPERX