KHX14400D3/2G
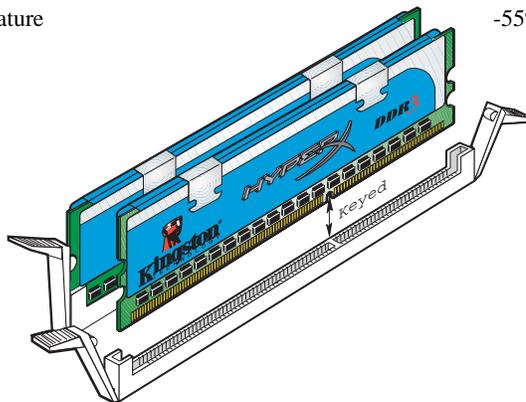## 2GB 256M x 64-Bit PC3-14400
CL8 240-Pin DIMM

DESCRIPTION:

This document describes Kingston's 256M x 64-bit 2GB (2048MB) DDR3-1800 CL8 SDRAM (Synchronous DRAM) memory module, based on sixteen 128M x 8-bit DDR3 FBGA components. This module has been tested to run at DDR3-1800MHz at a latency timing of 8-8-8 at 1.9V. The SPD is programmed to JEDEC standard latency DDR3-1333Mhz timing of 9-9-9 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:
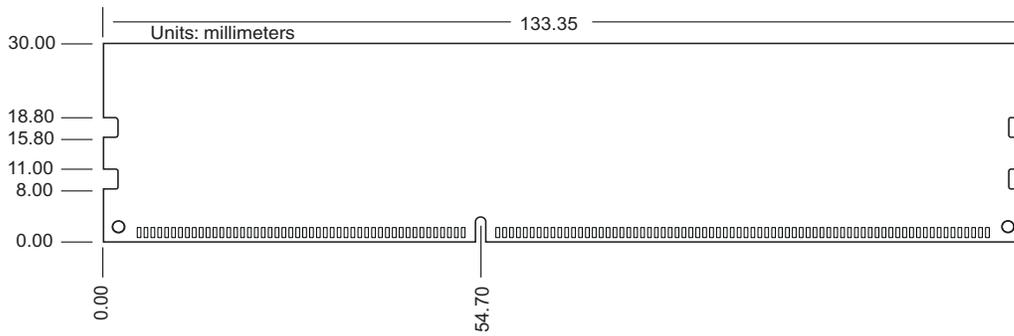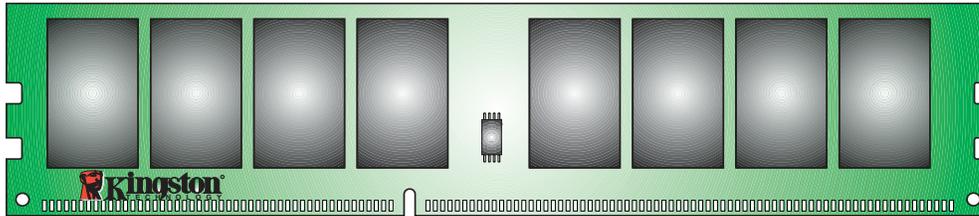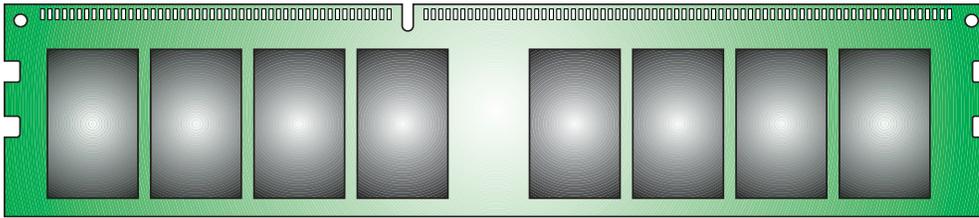
FEATURES:

- JEDEC standard 1.5V ± 0.075V Power Supply
- VDDQ = 1.5V ± 0.075V
- 667MHz fCK for 1333Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 6,7,8,9
- Posted CAS
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- Programmable CAS Write Latency(CWL) = 9(DDR3-1333)
- 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 then TCASE 85°C, 3.9us at 85°C < TCASE . 95°C
- Asynchronous Reset
- PCB : Height 1.180" (30.00mm), double sided component

PERFORMANCE:

- CL(IDD)   9 cycles
- Row Cycle Time (tRCmin)   49.5ns (min.)
- Refresh to Active/Refresh Command Time (tRFCmin)   110ns
- Row Active Time (tRASmin)   36ns (min.)
- Power   1.800 W (operating)
- UL Rating   94 V - 0
- Operating Temperature   0° C to 85° C
- Storage Temperature   -55° C to +100° C

MODULE DIMENSIONS:

Units: millimeters

133.35

30.00

18.80
15.80
11.00
8.00

0.00

0.00

54.70

w/ heatsink assembly

Keyed