

# Memory Module Specification

# KHX6400D2/2G 2GB 256M x 64-Bit PC2-6400 CL5 240-Pin DIMM

### **DESCRIPTION:**

This document describes Kingston's 256M x 64-bit 2GB (2048MB) DDR2-800 CL5 SDRAM (Synchronous DRAM) memory module, based on sixteen 128M x 8-bit DDR2 FBGA components. This module has been tested to run at DDR2 800MHz at latency timing of 5-5-5-15 at 1.85V. The SPD is programmed to JEDEC standard latency 667Mhz timing of 5-5-5-15 at 1.8V. This 240-pin DIMM uses gold contact fingers and requires +1.8V. The electrical and mechanical specifications are as follows:

#### **FEATURES:**

Power supply: Vdd:  $1.8V \pm 0.1V$ , Vddq:  $1.8V \pm 0.1V$ 

Double-data-rate architecture; two data transfers per clock cycle

☑ Bidirectional data strobe(DQS)

☑ Differential clock inputs(CK and CK)

DLL aligns DQ and DQS transition with CK transition

Programmable Read latency 5 (clock)

Burst Length: 4, 8 (Interleave/nibble sequential)

Programmable Burst type (sequential & interleave)

☐ Timing Reference: 5-5-5-15 at +1.8V / 5-5-5-15 at +1.85V

Edge aligned data output, center aligned data input

Auto & Self refresh, 7.8us refresh interval (8K/64ms refresh)

Serial presence detect with EEPROM

High Performance Heat Spreader

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

#### PERFORMANCE:

Clock Cycle Time (tCK) CL=5 3ns (min.) / 8ns (max.)

Row Cycle Time (tRC) 60ns (min.)

Refresh to Active/Refresh Command Time (tRFC) 127.5ns

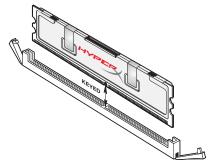
Row Active Time (tRAS) 45ns (min.) / 70,000ns (max.)

✓ Single Power Supply of +1.8V (+/- .1V)
✓ Power 2.016 W (operating)

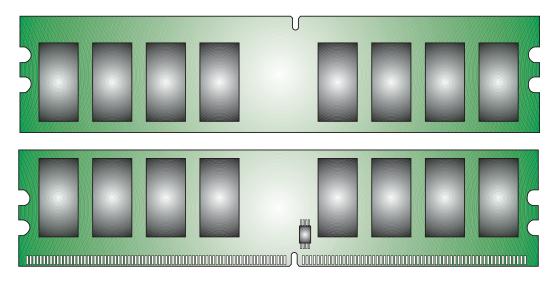
✓ UL Rating 94 V - 0

Operating Temperature 0° C to 55° C

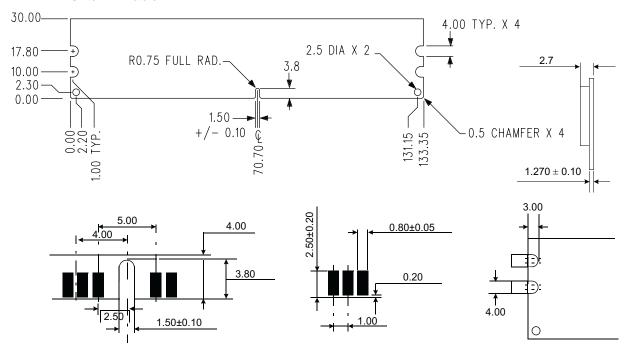
Storage Temperature -55° C to +125° C



### **MODULE DIMENSIONS:**



#### Units: millimeters



## For more information, go to www.kingston.com

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