

# Memory Module Specification

### KHX4300D2K2/512

## 512MB (256MB 32M x 64-Bit x 2 pcs.) PC2-4300 CL3 240-Pin DIMM Kit

#### **DESCRIPTION:**

Kingston's KHX4300D2K2/512 is a kit of two 32M x 64-bit (256MB) DDR2-533 CL3 SDRAM (Synchronous DRAM) memory modules, based on four 32M x 16-bit DDR2 FBGA components (per module). Total kit capacity is 512MB. Each pair has been tested to run at DDR2 533MHz at low latency timing of 3-3-3-10 at 1.85V. The SPDs are programmed to JEDEC standard latency timing of 4-4-4-12 at 1.8V. Each 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 3 (clock)
- Burst Length: 4, 8 (Interleave/nibble sequential)
- Programmable Burst type (sequential & interleave)
- Timing Reference: 3-3-3-10 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), single sided component

#### PERFORMANCE:

<b>⊻</b> Cl	ock Cycle	e Time (	(tCK)	CL=3
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Row Cycle Time (tRC)

Refresh to Active/Refresh Command Time (tRFC)

Row Active Time (tRAS)

Single Power Supply of

2 Power

UL Rating

☑ Operating Temperature

**☑** Storage Temperature

5ns (min.) / 8ns (max.)

60ns (min.)

105ns

45ns (min.) / 70,000ns (max.)

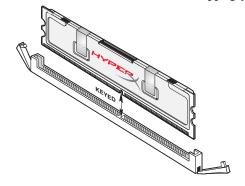
+1.8V (+/- .1V)

0.864 W (operating per module)

94 V - 0

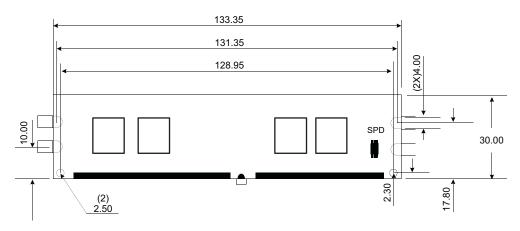
0° C to 55° C

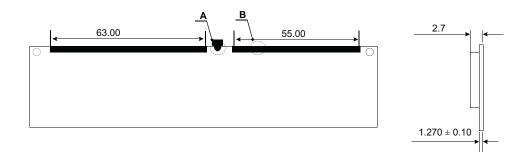
-55° C to +125° C

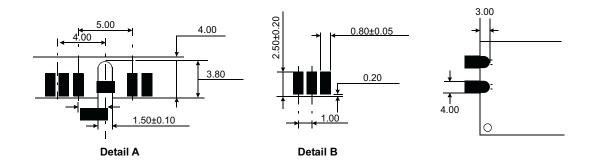


#### **MODULE DIMENSIONS:**









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