# Memory Module Specifications

# HYPES

#### KHX18C10T3K4/16

16GB (4GB 512M x 64-Bit x 4 pcs.)
DDR3-1866 CL10 240-Pin DIMM Kit





#### **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	3.480 W* (per module)
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

<sup>\*</sup>Power will vary depending on the SDRAM used.

#### DESCRIPTION

Kingston's KHX18C10T3K4/16 is a kit of four 512M x 64-bit (4GB) DDR3-1866 CL10 SDRAM (Synchronous DRAM) 1Rx8 memory modules, based on eight 512M x 8-bit DDR3 FBGA components per module. Each module kit supports Intel® XMP (Extreme Memory Profiles). Total kit capacity is 16GB. Each module kit has been tested to run at DDR3-1866 at a low latency timing of 10-11-10 at 1.5V. The SPDs are programmed to JEDEC standard latency DDR3-1600 timing of 11-11-11 at 1.5V. Each 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**

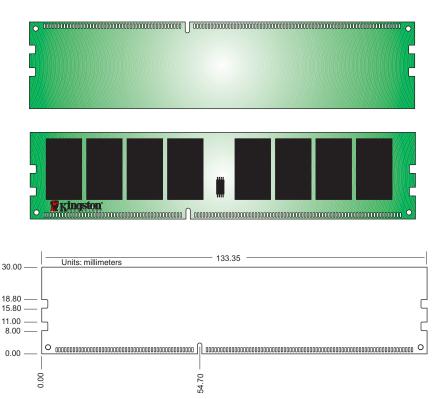
- JEDEC standard 1.5V (1.425V ~1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 800MHz fCK for 1600Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL 2, or CL 1 clock
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without 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</li>
- · Asynchronous Reset
- PCB : Height 1.827" (46.41mm) w/ heatsink, single sided component

Continued >>

Page 1

continued HyperX

## **MODULE DIMENSIONS**



### **MODULE WITH HEAT SPREADER**



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