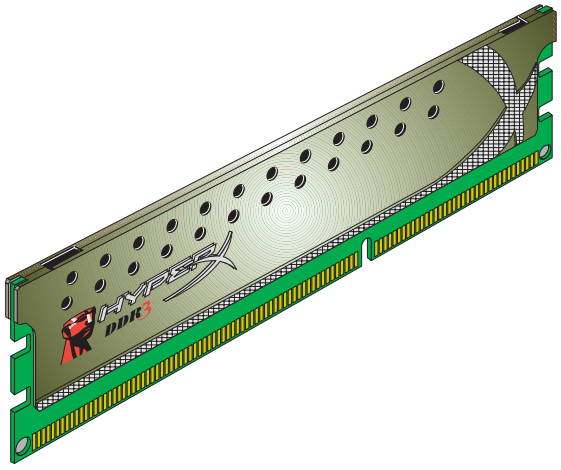
KHX2133C10D3X2K2/4GX

4GB (2GB 256M x 64-Bit x 2 pcs.)
DDR3-2133MHz CL10 240-Pin DIMM Kit



SPECIFICATIONS

CL(IDD)	9 cycles
Row Cycle Time (tRCmin)	49.5ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	160ns (min.)
Row Active Time (tRASmin)	36ns (min.)
Power (Operating)	0.795 W* (per module)
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

*Power will vary depending on the SDRAM used.

DESCRIPTION

Kingston's KHX2133C10D3X2K2/4GX is a kit of two 256M x 64-bit (2GB) DDR3-2133 CL10 SDRAM (Synchronous DRAM) 1Rx8 memory modules, based on eight 256M x 8-bit DDR3 FBGA components per module. Each module kit supports **Intel® XMP** (Extreme Memory Profiles). Total kit capacity is 4GB. Each module kit has been tested to run at DDR3-2133 at a low latency timing of 10-11-10 at 1.65V. The SPDs are programmed to JEDEC standard latency DDR3-1333 timing of 9-9-9 at 1.5V. Each 240-pin DIMM uses gold contact fingers. The JEDEC standard electrical and mechanical specifications are as follows:

XMP TIMING PARAMETERS

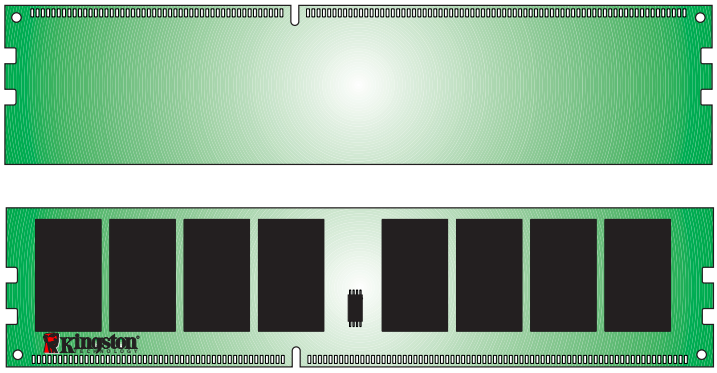
- JEDEC: DDR3-1333 CL9-9-9 @1.5V
- XMP Profile #1: D3-1866 CL9-11-10 @1.65V
- XMP Profile #2: D3-2133 CL10-11-10 @1.65V

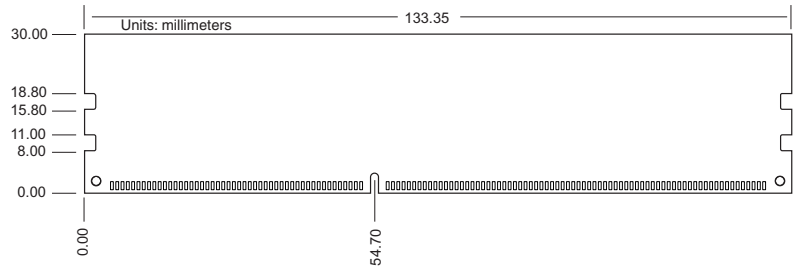
FEATURES

- JEDEC standard 1.5V (1.425V ~ 1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 667MHz fCK for 1333Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 9, 8, 7, 6
- Posted CAS
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- Programmable CAS Write Latency(CWL) = 7 (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 than TCASE 85°C, 3.9us at 85°C < TCASE ≤ 95°C
- Asynchronous Reset
- PCB : Height 1.18” (30.00mm), single sided component

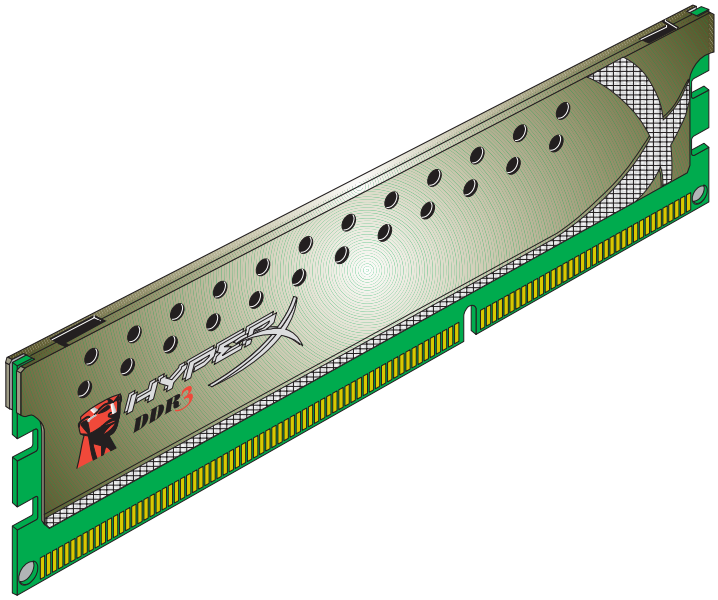
Continued >>

MODULE DIMENSIONS





MODULE WITH HEAT SPREADER



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.