HYPERX

KHX21S12P1K2/8

8GB (4GB 512M x 64-Bit x 2 pcs.)
DDR3-2133 CL12 204-Pin SODIMM Kit
Supports Kingston HyperX Plug and Play (PnP)

SPECIFICATIONS

CL(IDD)	12 cycles
Row Cycle Time (tRCmin)	44.22ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	33ns (min.)
Maximum Operating Power	TBD W* (per module)
UL Rating	94 V - 0
Operating Temperature	0º C to 85º C
Storage Temperature	-55º C to +100º C

*Power will vary depending on the SDRAM used.

DESCRIPTION

HyperX KHX21S12P1K2/8 is a kit of two 512M x 64-bit (4GB) DDR3-2133 CL12 SDRAM (Synchronous DRAM) 1Rx8 memory modules, based on eight 512M x 8-bit DDR3 FBGA components per module. Total kit capacity is 8GB. Each module kit has been tested to run at JEDEC DDR3-2133 at a low latency timing of 12-12-12 at 1.5V. Additional timing parameters are shown in the PnP Timing Parameters section. Each 204-pin SODIMM uses gold contact fingers and requires +1.5V. The electrical and mechanical specifications are as follows:

Note: PnP implementation is only possible in configurations that include a BIOS that supports the PnP function. Your maximum speed will be determined by your BIOS.

PnP JEDEC TIMING PARAMETERS:

- DDR3-2133 CL12-12-12 @1.5V
- DDR3-1866 CL11-11-11 @1.5V
- DDR3-1600 CL9-9-9 @1.5V

FEATURES

- JEDEC standard 1.5V (1.425V ~ 1.575V) Power Supply

- VDDQ = 1.5V (1.425V ~ 1.575V)

- 1066MHz fCK for 2133Mb/sec/pin

- 8 independent internal bank

- Programmable CAS Latency: 12, 11, 10, 9, 8, 7, 6, 5

- Posted CAS

- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock

- Programmable CAS Write Latency(CWL) = 10 (DDR3-2133)

- 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 1.180" (30.00mm), double sided component

MODULE DIMENSIONS
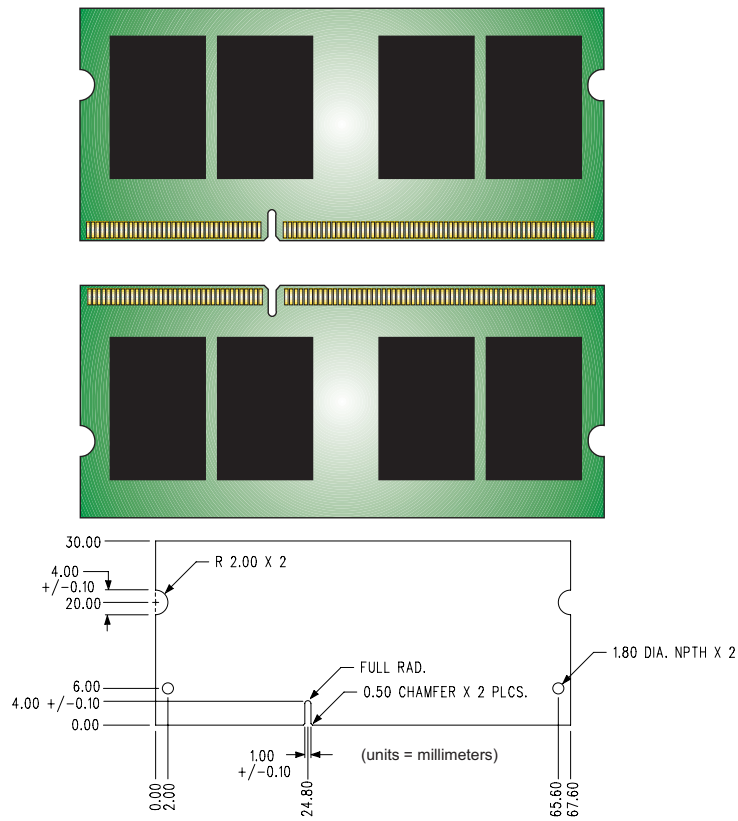
FOR MORE INFORMATION, GO TO WWW.KINGSTON.COM/HYPERX