Memory Module Specifications



KVR1333D3D8R9SK2/4G

4GB (2GB 256M x 72-Bit x 2 pcs.) PC3-10600 CL9 Registered w/Parity 240-Pin DIMM Kit

DESCRIPTION

ValueRAM's KVR1333D3D8R9SK2/4G is a kit of two 256M x 72-bit 2GB (2048MB) DDR3-1333MHz CL9 SDRAM (Synchronous DRAM) registered w/parity, dual-rank memory modules, based on eighteen 128M x 8-bit DDR3-1333MHz FBGA components per module. Total kit capacity is 4GB (4096MB). The SPDs are programmed to JEDEC standard latency 1333MHz timing of 9-9-9 at 1.5V. This 240-pin DIMM uses gold contact fingers and requires +1.5V. The electrical and mechanical specifications are as follows:

FEATURES

- JEDEC standard 1.5V ± 0.075V Power Supply
- $VDDQ = 1.5V \pm 0.075V$
- 667MHz fCK for 1333Mb/sec/pin
- · 8 independent internal bank
- Programmable CAS Latency: 6,7,8,9,10
- 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
- · On-DIMM thermal sensor (Grade B)
- 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

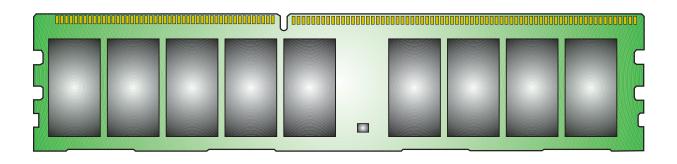
SPECIFICATIONS

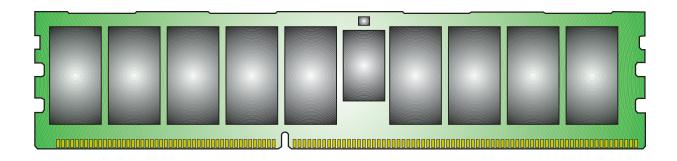
| CL(IDD) | 9 cycles |
|---|--------------------------------|
| Row Cycle Time (tRCmin) | 49.5ns (min.) |
| Refresh to Active/Refresh Command Time (tRFCmin) | 110ns (min.) |
| Row Active Time (tRASmin) | 36ns (min.) |
| Power | 3.480 W (operating per module) |
| UL Rating | 94 V - 0 |
| Operating Temperature | 0° C to 85° C |
| Storage Temperature | -55° C to +100° C |
| | |

Continued >>

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MODULE DIMENSIONS:





(units = millimeters)

