Memory Module Specifications



KVR1333D3S4R9S/2G

2GB 256M x 72-Bit PC3-10600 CL9 Registered w/Parity 240-Pin DIMM

DESCRIPTION

This document describes ValueRAM's 256M x 72-bit 2GB (2048MB) DDR3-1333 CL9 SDRAM (Synchronous DRAM) registered w/parity, single-rank memory module, based on eighteen 256M x 4-bit DDR3-1333 FBGA components. The SPD is 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
- · 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
- · On-DIMM thermal sensor (Grade B)
- 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

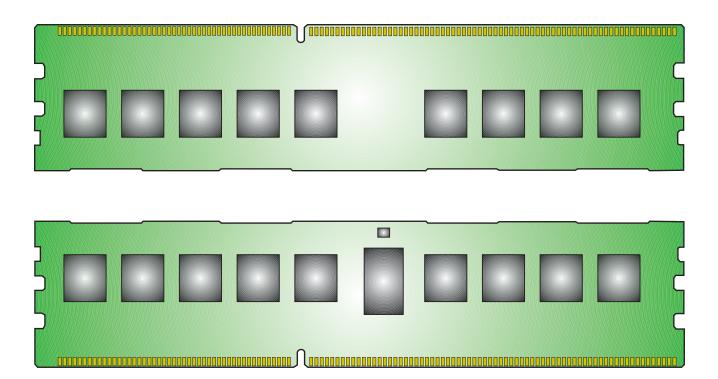
SPECIFICATIONS

CL(IDD)	9 cycles
Row Cycle Time (tRCmin)	49.5ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	110ns
Row Active Time (tRASmin)	36ns (min.)
Power	3.885 W (operating)
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

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MODULE DIMENSIONS:



(units = millimeters)

