

Memory Module Specifications

KVR1066D3N7/1G

1GB 1Rx8 128M x 64-Bit PC3-8500

CL7 240-Pin DIMM

Important Information: The module defined in this data sheet is one of several configurations available under this part number. While all configurations are compatible, the DRAM combination and/or the module height may vary from what is described here.

DESCRIPTION

This document describes ValueRAM's 128M x 64-bit (1GB) DDR3-1066 CL7 SDRAM (Synchronous DRAM), 1Rx8 memory module, based on eight 128M x 8-bit DDR3-1066 FBGA components. The SPD is programmed to JEDEC standard latency DDR3-1066 timing of 7-7-7 at 1.5V. This 240-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- JEDEC standard 1.5V (1.425V ~1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 533MHz fCK for 1066Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 8, 7, 6
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- Programmable CAS Write Latency(CWL) = 6 (DDR3-1066)
- 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 $\pm$ 1%)
- On Die Termination using ODT pin
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE $\leq$ 95°C
- Asynchronous Reset
- PCB: Height 0.740" (18.75mm), single sided component

SPECIFICATIONS

CL(IDD)	7 cycles
Row Cycle Time (tRCmin)	50.63ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	110ns (min.)
Row Active Time (tRASmin)	37.5ns (min.)
Power (Operating)	1.080 W*
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.

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The diagram illustrates two horizontal strips of material. The top strip is green with a yellow border and a white U-shaped notch. The bottom strip is green with a yellow border and a white U-shaped notch, and it contains several black rectangular blocks.

Technical drawing of a rectangular plate with the following dimensions and features:

- Overall width: 133.35
- Overall height: 18.75
- Left side features:
 - Top flange: 15.80
 - Top flange thickness: 2.30
 - Top flange radius: R 0.75
 - Top flange chamfer: 0.50 x 45 DEG. 2 PLACES
 - Top flange hole: 2.50 DIA X 2
 - Top flange hole position: 131.15
 - Top flange hole diameter: 2.50
 - Top flange hole position: 131.25
 - Top flange hole position: 133.35
- Right side features:
 - Top flange: 15.80
 - Top flange thickness: 2.30
 - Top flange radius: R 0.65
 - Top flange chamfer: 0.50 x 45 DEG. 2 PLACES
 - Top flange hole: 2.50 DIA X 2
 - Top flange hole position: 131.15
 - Top flange hole diameter: 2.50
 - Top flange hole position: 131.25
 - Top flange hole position: 133.35
- Bottom features:
 - Bottom flange: 15.80
 - Bottom flange thickness: 2.30
 - Bottom flange radius: R 0.75
 - Bottom flange chamfer: 0.50 x 45 DEG. 2 PLACES
 - Bottom flange hole: 2.50 DIA X 2
 - Bottom flange hole position: 131.15
 - Bottom flange hole diameter: 2.50
 - Bottom flange hole position: 131.25
 - Bottom flange hole position: 133.35