

Memory Module Specifications

KSM32RD8/32SB

32GB 2Rx8 4G x 72-Bit PC4-3200

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD8/32SB is a 4G x 72-bit (32GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM) registered w/ parity, 2Rx8, ECC, memory module, based on eighteen 2G x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-3200 timing of 22-22-22 at 1.2V. Each 288-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- Power Supply: VDD = 1.2V
- VDDQ = 1.2V
- VPP = 2.5V
- VDDSPD = 2.41V to 2.75V
- Functionality and operations comply with the DDR4 SDRAM datasheet
- 16 internal banks
- Bank Grouping is applied, and CAS to CAS latency (tCCD_L, tCCD_S) for the banks in the same or different bank group accesses are available
- Data transfer rates: PC4-3200, PC4-2933, PC4-2666, PC4-2400, PC4-2133, PC4-1866, PC4-1600
- Bi-Directional Differential Data Strobe
- 8 bit pre-fetch
- Burst Length (BL) switch on-the-fly BL8 or BC4(Burst Chop)
- Supports ECC error correction and detection
- On-Die Termination (ODT)
- Temperature sensor with integrated SPD
- This product is in compliance with the RoHS directive.
- Per DRAM Addressability is supported
- Internal Vref DQ level generation is available
- Write CRC is supported at all speed grades
- CA parity (Command/Address Parity) mode is supported

SPECIFICATIONS

CL(IDD)	22 cycles
Row Cycle Time (tRCmin)	45.75ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns(min.)
Row Active Time (tRASmin)	32ns(min.)
Maximum Operating Power	*
UL Rating	94 V - 0
Operating Temperature	0° C to +85° C
Storage Temperature	-55° C to +100° C

*See IDD Specifications (page 2)

Module Assembly

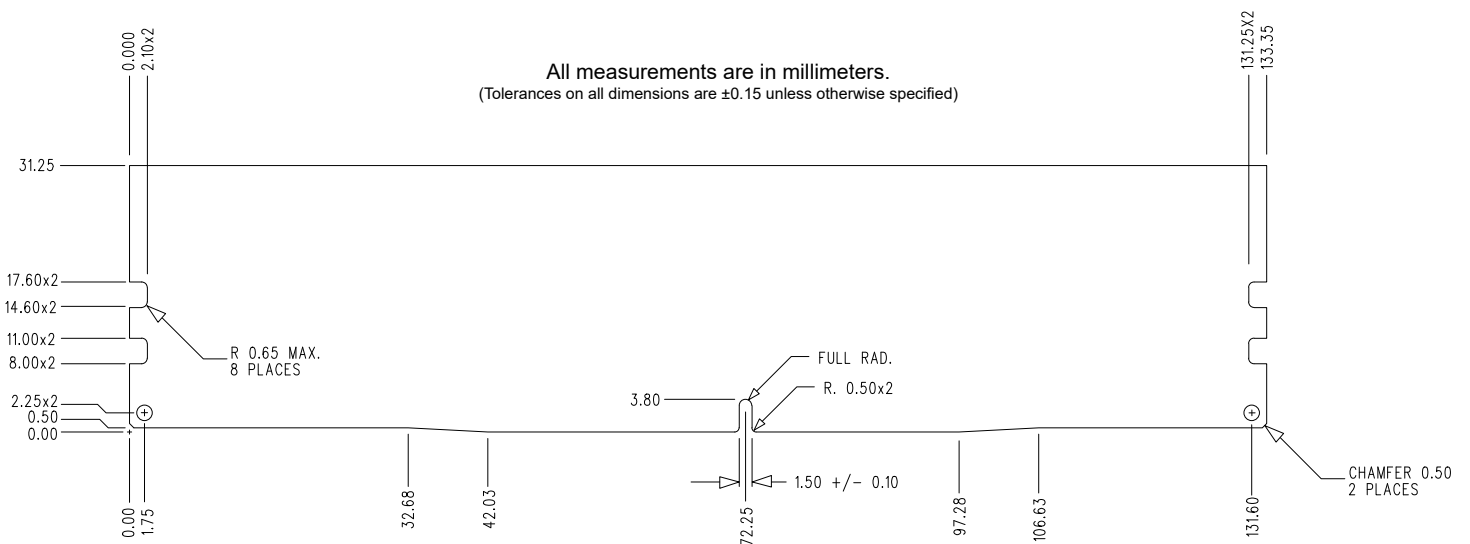
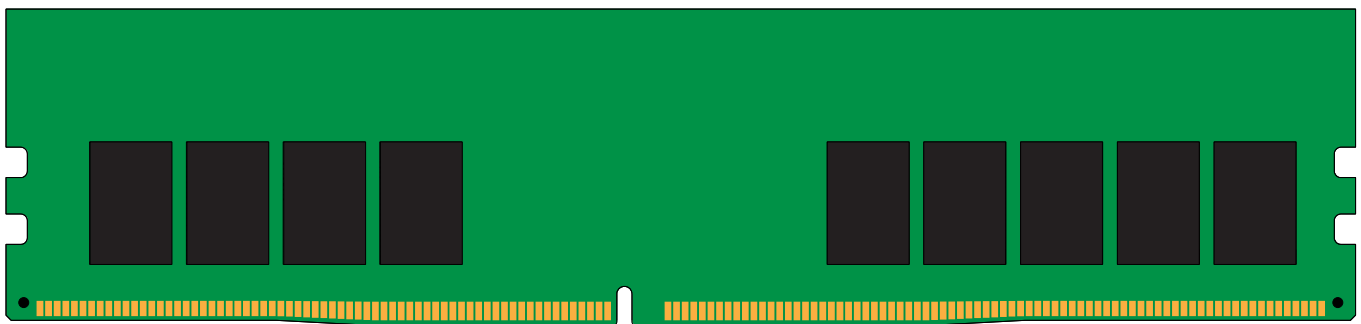
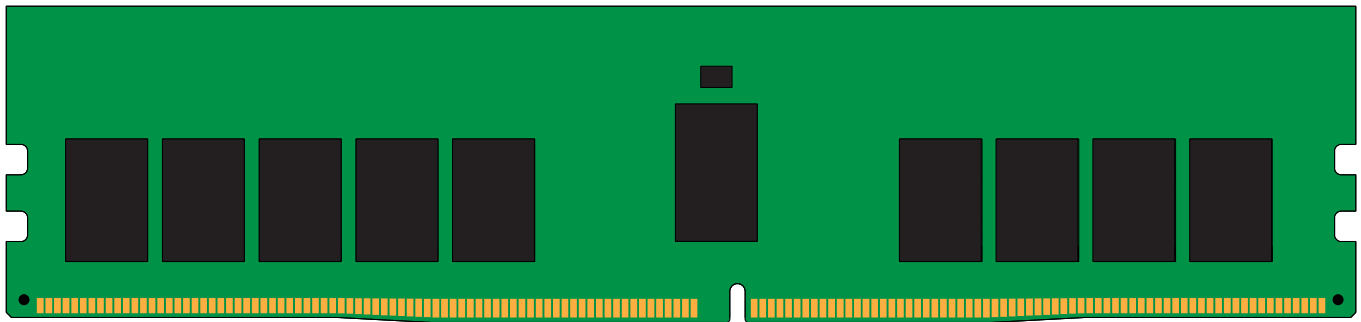
DRAM: Samsung (B-DIE)

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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	941	mA
IDD0A	964	mA
IDD1	1097	mA
IDD1A	1125	mA
IDD2N	804	mA
IDD2NA	811	mA
IDD2NT	836	mA
IDD2NL	727	mA
IDD2NG	809	mA
IDD2ND	767	mA
IDD2NP	833	mA
IDD2P	539	mA
IDD2Q	773	mA
IDD3N	1052	mA
IDD3NA	1061	mA
IDD3P	668	mA
IDD4R	1802	mA
IDD4RA	1783	mA
IDD4RB	1828	mA
IDD4W	1691	mA
IDD4WA	1761	mA
IDD4WB	1692	mA
IDD4WC	1606	mA
IDD4WP	1446	mA
IDD5B	4844	mA
IDD5F2	3649	mA
IDD5F4	3100	mA
IDD6N	728	mA
IDD6E	1180	mA
IDD6R	619	mA
IDD6A	722	mA
IDD7	2153	mA
IDD8	248	mA

MODULE DIMENSIONS



The product images shown are for illustration purposes only and may not be an exact representation of the product.
Kingston reserves the right to change any information at anytime without notice.

Revision No.	History	Release Date	Remark	Editor	Approved
A	Initial Release	03/19/24		David Y.	Henry N.
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