

Memory Module Specifications

KSM32RD4/32SE

32GB 2Rx4 4G x 72-Bit PC4-3200

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD4/32SE is a 4G x 72-bit (32GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM) registered w/ parity, 2Rx4, ECC, memory module, based on thirty-six 2G x 4-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

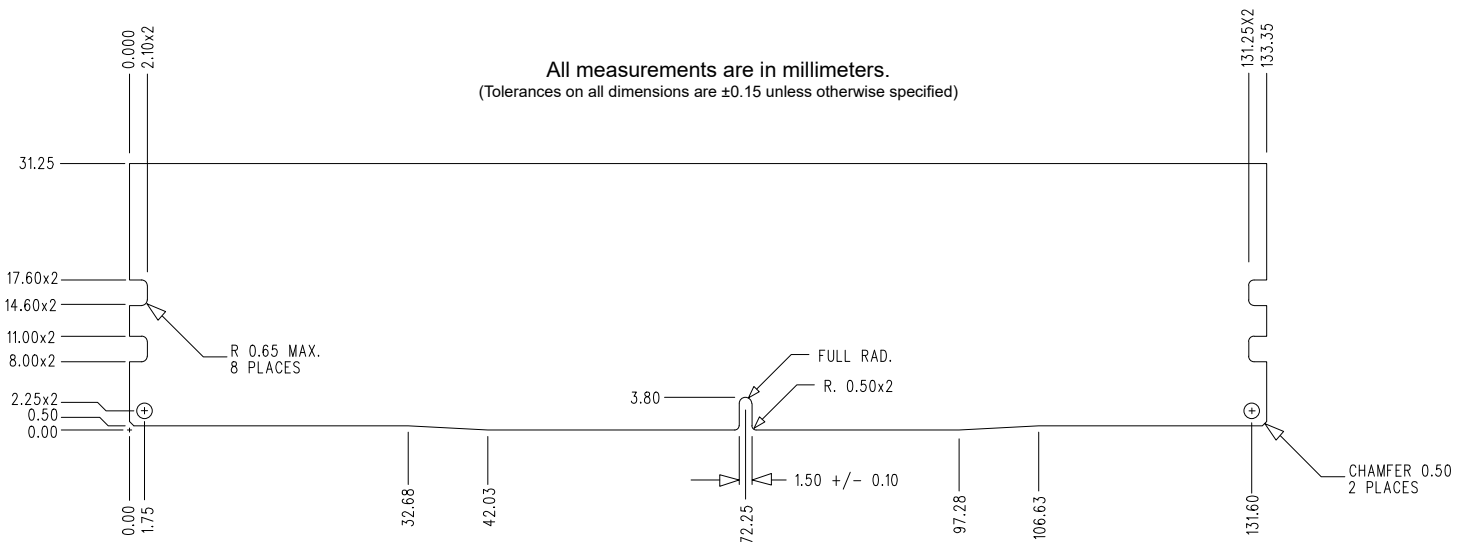
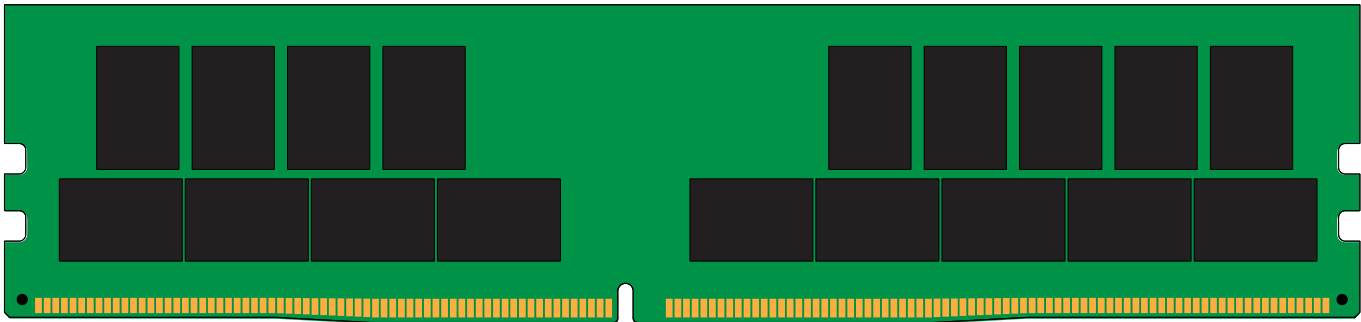
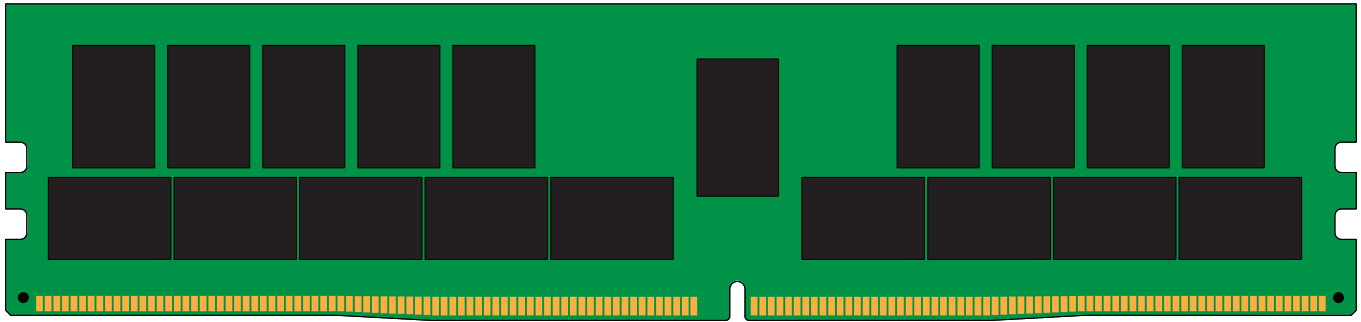
DRAM: Samsung (E-DIE)

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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	1283	mA
IDD0A	1328	mA
IDD1	1493	mA
IDD1A	1546	mA
IDD2N	1130	mA
IDD2NA	1100	mA
IDD2NT	1137	mA
IDD2NL	941	mA
IDD2NG	1099	mA
IDD2ND	1009	mA
IDD2NP	1130	mA
IDD2P	551	mA
IDD2Q	1042	mA
IDD3N	1425	mA
IDD3NA	1444	mA
IDD3P	692	mA
IDD4R	2312	mA
IDD4RA	2388	mA
IDD4RB	2341	mA
IDD4W	2397	mA
IDD4WA	2507	mA
IDD4WB	2397	mA
IDD4WC	2266	mA
IDD4WP	2615	mA
IDD5B	4925	mA
IDD5F2	3710	mA
IDD5F4	3258	mA
IDD6N	717	mA
IDD6E	1097	mA
IDD6R	524	mA
IDD6A	697	mA
IDD7	4235	mA
IDD8	280	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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