

Memory Module Specifications

KSM32RD8/32HD

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

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD8/32HD 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: Hynix (D-DIE)

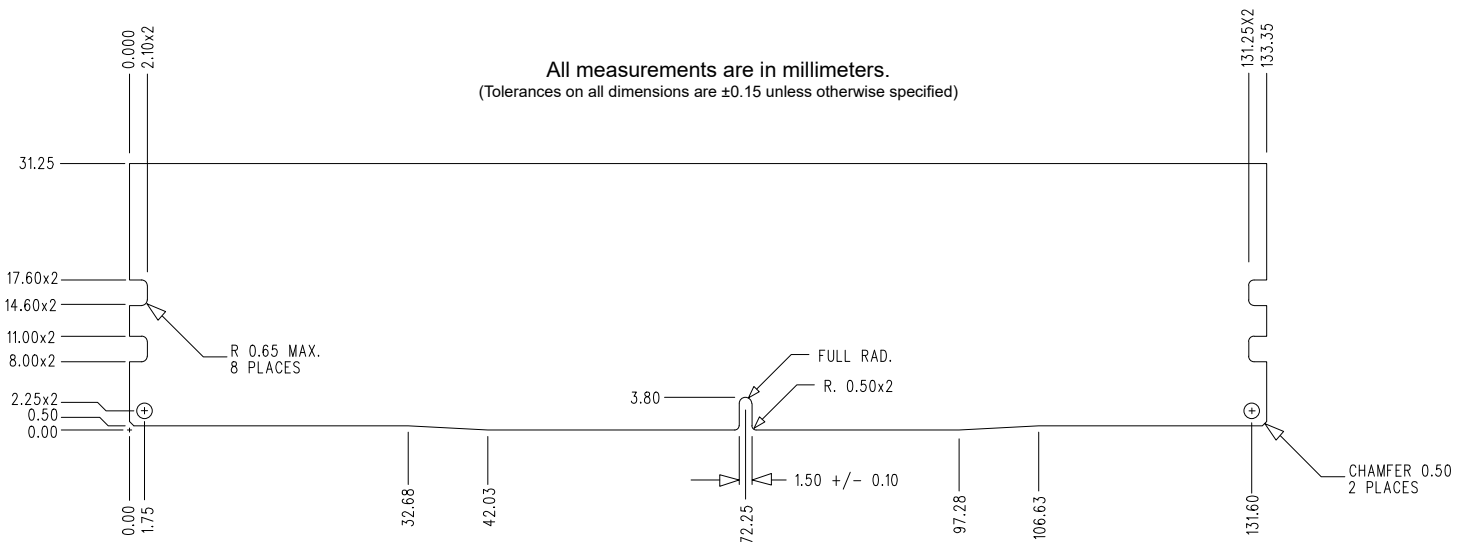
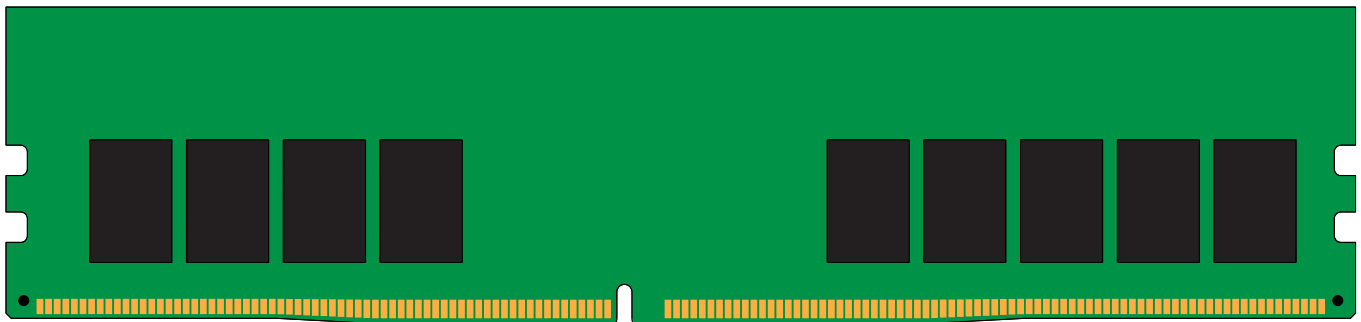
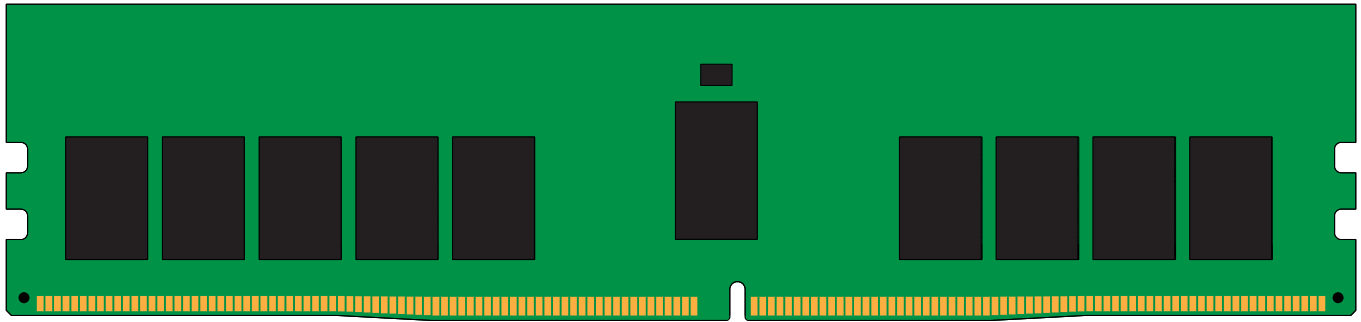
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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	1336	mA
IDD0A	1336	mA
IDD1	1470	mA
IDD1A	1506	mA
IDD2N	1219	mA
IDD2NA	1219	mA
IDD2NT	1309	mA
IDD2NL	985	mA
IDD2NG	1219	mA
IDD2ND	1165	mA
IDD2NP	1237	mA
IDD2P	781	mA
IDD2Q	1165	mA
IDD3N	1615	mA
IDD3NA	1633	mA
IDD3P	1175	mA
IDD4R	2298	mA
IDD4RA	2334	mA
IDD4RB	2325	mA
IDD4W	2262	mA
IDD4WA	2307	mA
IDD4WB	2199	mA
IDD4WC	2199	mA
IDD4WP	2514	mA
IDD5B	5890	mA
IDD5F2	4342	mA
IDD5F4	3802	mA
IDD6N	742	mA
IDD6E	1246	mA
IDD6R	382	mA
IDD6A	1246	mA
IDD7	2568	mA
IDD8	274	mA

IPP		unit
Symbol	3200	
IPP0	61.2	mA
IPP1	56.7	mA
IPP2N	37.8	mA
IPP2P	34.2	mA
IPP3N	59.4	mA
IPP3P	57.6	mA
IPP4R	49.5	mA
IPP4W	52.2	mA
IPP5B	801	mA
IPP5F2	551.7	mA
IPP5F4	445.5	mA
IPP6N	108	mA
IPP6E	194.4	mA
IPP6R	52.2	mA
IPP6A	194.4	mA
IPP7	220.5	mA
IPP8	36	mA

MODULE DIMENSIONS



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