

Memory Module Specifications

KSM32RD4/64HD

64GB 2Rx4 8G x 72-Bit PC4-3200

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD4/64HD is a 8G x 72-bit (64GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM) registered w/ parity, 2Rx4, ECC, memory module, based on thirty-six 4G 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: Hynix (D-DIE)

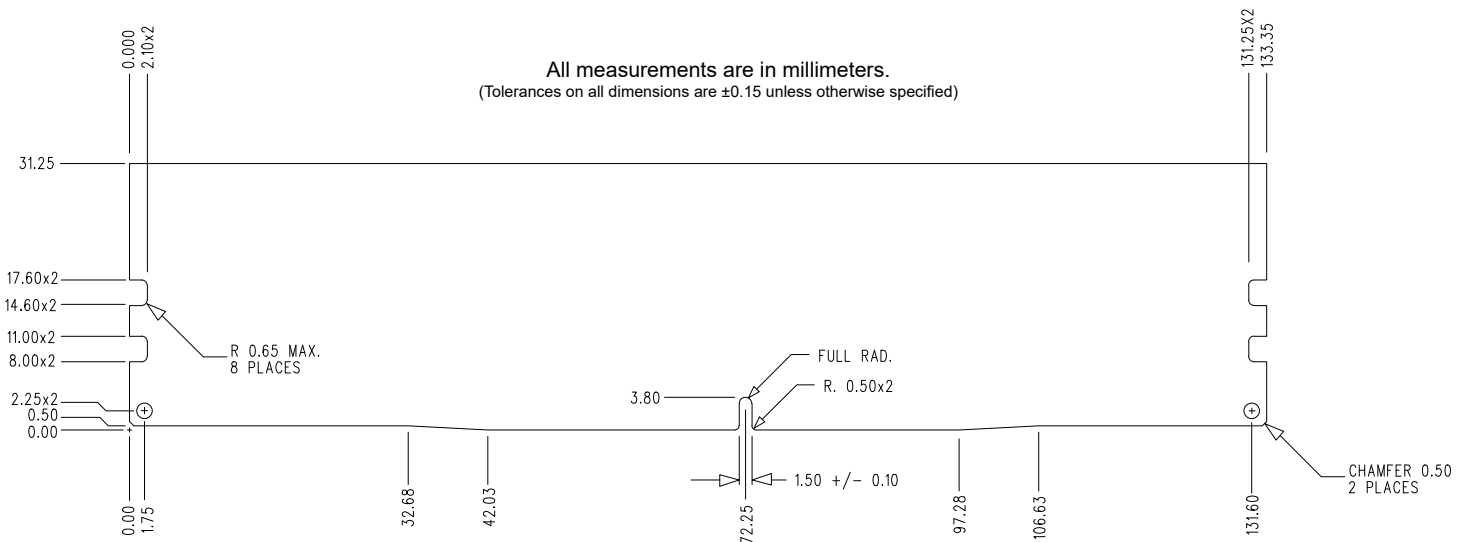
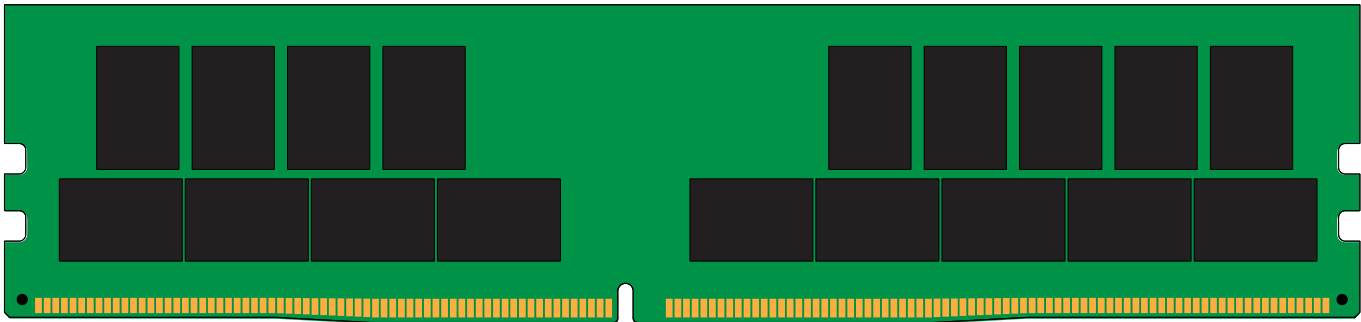
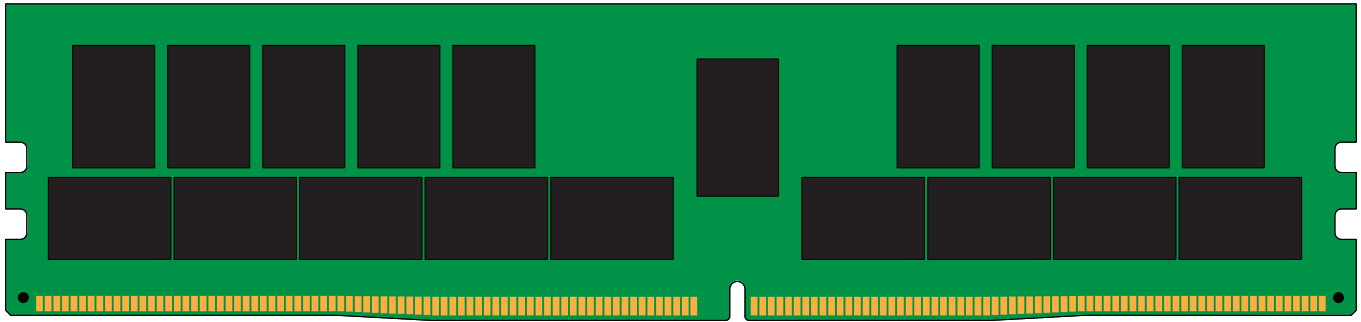
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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	2101	mA
IDD0A	2101	mA
IDD1	2325	mA
IDD1A	2397	mA
IDD2N	1939	mA
IDD2NA	1939	mA
IDD2NT	2119	mA
IDD2NL	1471	mA
IDD2NG	1939	mA
IDD2ND	1831	mA
IDD2NP	1975	mA
IDD2P	1249	mA
IDD2Q	1831	mA
IDD3N	2299	mA
IDD3NA	2407	mA
IDD3P	1897	mA
IDD4R	3405	mA
IDD4RA	3477	mA
IDD4RB	3405	mA
IDD4W	3387	mA
IDD4WA	3477	mA
IDD4WB	3063	mA
IDD4WC	3333	mA
IDD4WP	3891	mA
IDD5B	11281	mA
IDD5F2	8185	mA
IDD5F4	7105	mA
IDD6N	1462	mA
IDD6E	2470	mA
IDD6R	742	mA
IDD6A	2470	mA
IDD7	5241	mA
IDD8	526	mA

IPP		unit
Symbol	3200	
IPP0	111.6	mA
IPP1	102.6	mA
IPP2N	75.6	mA
IPP2P	68.4	mA
IPP3N	122.4	mA
IPP3P	126	mA
IPP4R	100.8	mA
IPP4W	97.2	mA
IPP5B	1602	mA
IPP5F2	1103.4	mA
IPP5F4	891	mA
IPP6N	216	mA
IPP6E	388.8	mA
IPP6R	104.4	mA
IPP6A	388.8	mA
IPP7	682.2	mA
IPP8	72	mA

MODULE DIMENSIONS



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