

Memory Module Specifications

KSM32RD8/16HE

16GB 2Rx8 2G x 72-Bit PC4-3200

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD8/16HE is a 2G x 72-bit (16GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM) registered w/ parity, 2Rx8, ECC, memory module, based on eighteen 1G 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 (E-DIE)

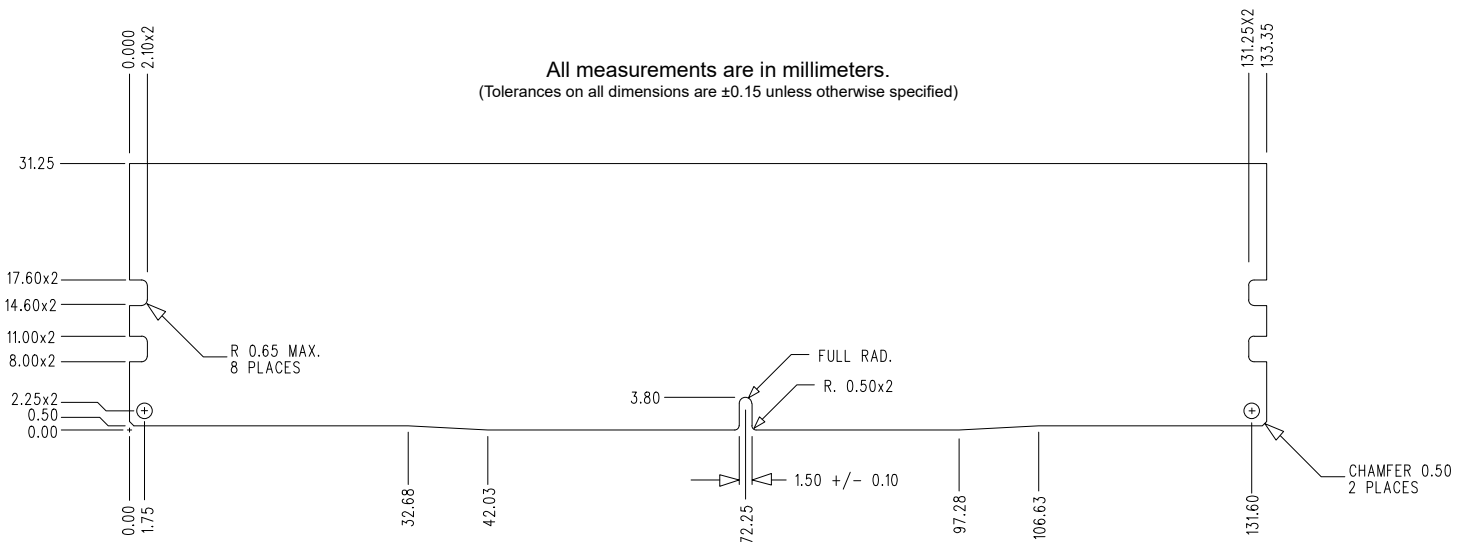
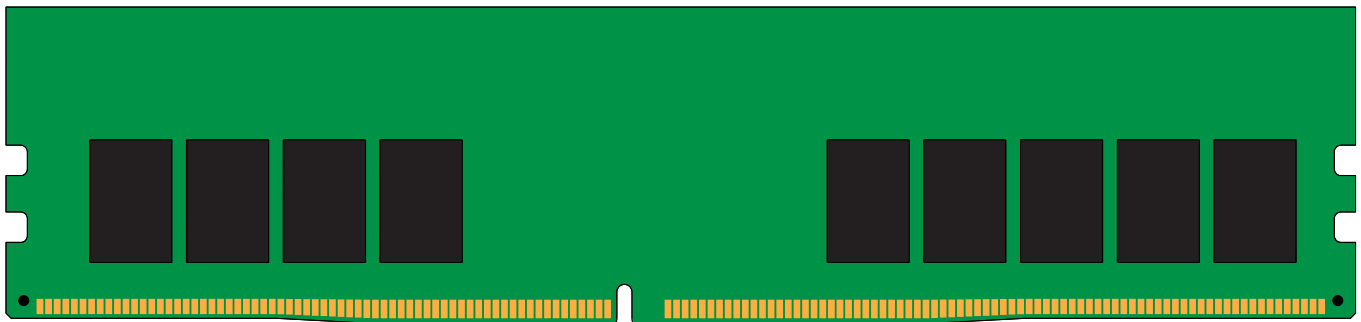
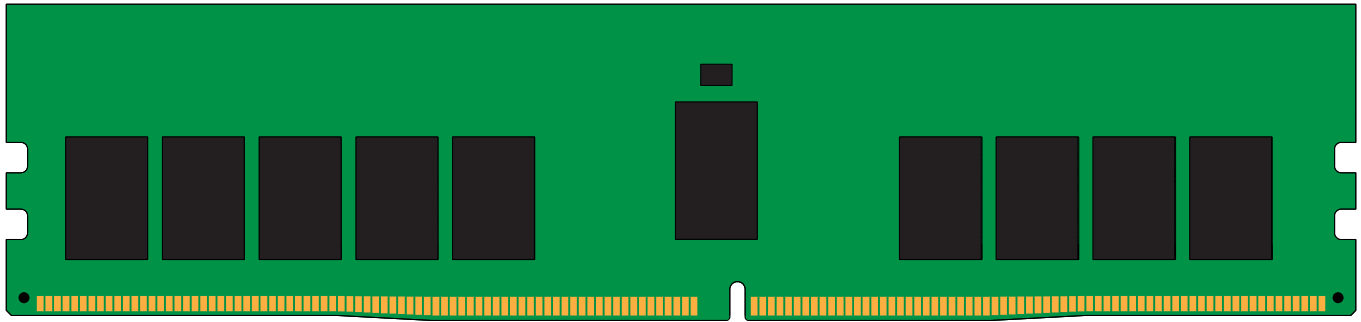
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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	1147	mA
IDD0A	1147	mA
IDD1	1272	mA
IDD1A	1299	mA
IDD2N	1039	mA
IDD2NA	1039	mA
IDD2NT	1129	mA
IDD2NL	841	mA
IDD2NG	1039	mA
IDD2ND	1003	mA
IDD2NP	1039	mA
IDD2P	637	mA
IDD2Q	1039	mA
IDD3N	1525	mA
IDD3NA	1525	mA
IDD3P	1058	mA
IDD4R	2010	mA
IDD4RA	2046	mA
IDD4RB	2037	mA
IDD4W	1929	mA
IDD4WA	1992	mA
IDD4WB	1884	mA
IDD4WC	1929	mA
IDD4WP	2028	mA
IDD5B	3208	mA
IDD5F2	2506	mA
IDD5F4	2236	mA
IDD6N	400	mA
IDD6E	616	mA
IDD6R	220	mA
IDD6A	616	mA
IDD7	2127	mA
IDD8	166	mA

IPP		unit
Symbol	3200	
IPP0	36	mA
IPP1	36	mA
IPP2N	18	mA
IPP2P	18	mA
IPP3N	36	mA
IPP3P	36	mA
IPP4R	54	mA
IPP4W	54	mA
IPP5B	324	mA
IPP5F2	225	mA
IPP5F4	189	mA
IPP6N	54	mA
IPP6E	90	mA
IPP6R	36	mA
IPP6A	72	mA
IPP7	144	mA
IPP8	18	mA

MODULE DIMENSIONS



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