

Memory Module Specifications

KSM32RD4/64HAR

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

CL22 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RD4/64HAR 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)	22cycles
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 (A-DIE)

RCD: Rambus

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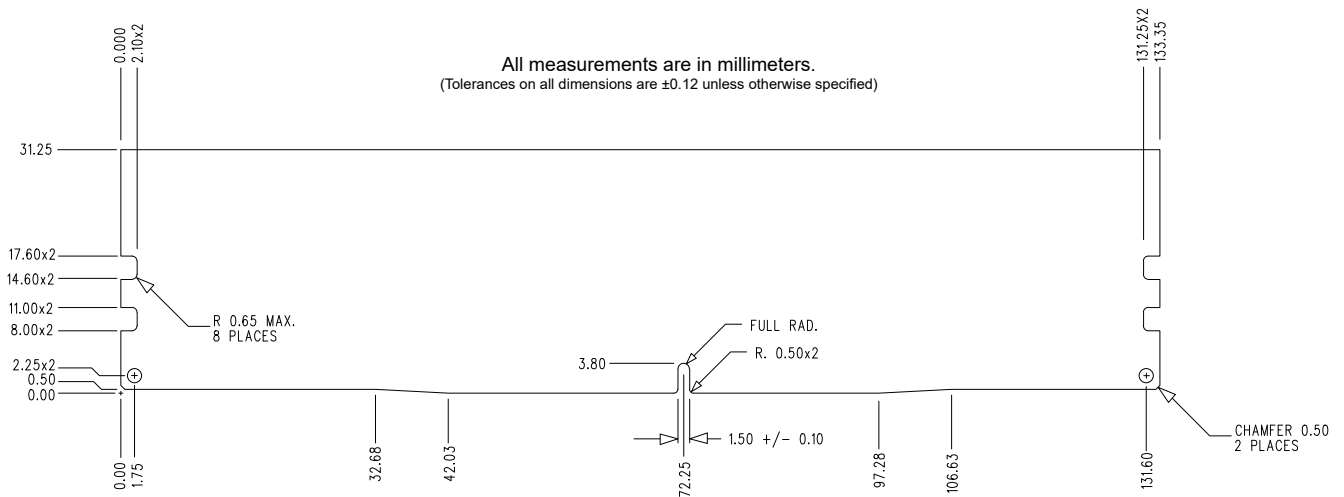
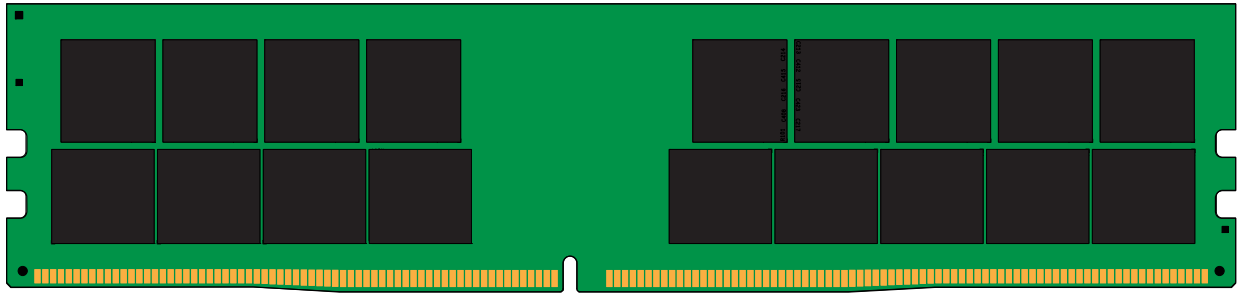
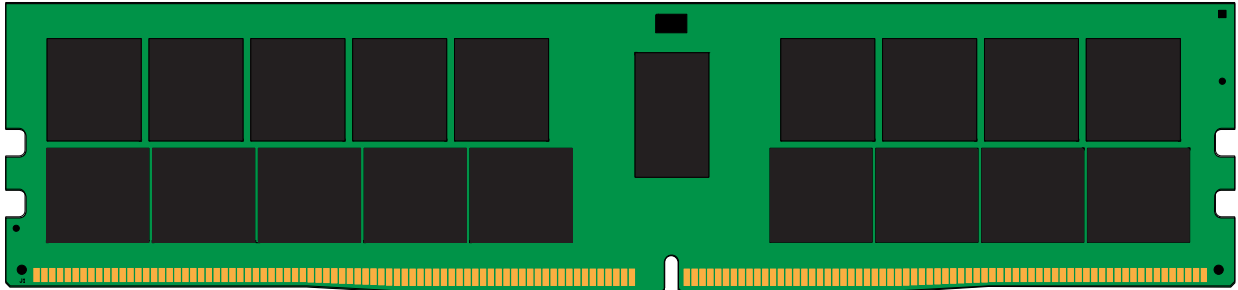
IDD Specifications

IDD		unit
Symbol	3200	
IDD0	2226	mA
IDD0A	2226	mA
IDD1	2435	mA
IDD1A	2525	mA
IDD2N	2064	mA
IDD2NA	2064	mA
IDD2NT	2244	mA
IDD2NL	1668	mA
IDD2NG	2028	mA
IDD2ND	1956	mA
IDD2NP	2100	mA
IDD2P	1487	mA
IDD2Q	1920	mA
IDD3N	2352	mA
IDD3NA	2352	mA
IDD3P	1847	mA
IDD4R	3713	mA
IDD4RA	3767	mA
IDD4RB	3731	mA
IDD4W	3443	mA
IDD4WA	3551	mA
IDD4WB	3191	mA
IDD4WC	3425	mA
IDD4WP	4019	mA
IDD5B	6294	mA
IDD5F2	5376	mA
IDD5F4	4350	mA
IDD6N	1527	mA
IDD6E	2211	mA
IDD6R	951	mA
IDD6A	2211	mA
IDD7	4937	mA
IDD8	771	mA

IPP		unit
Symbol	3200	
IPP0	234	mA
IPP1	252	mA
IPP2N	216	mA
IPP2P	216	mA
IPP3N	504	mA
IPP3P	504	mA
IPP4R	360	mA
IPP4W	378	mA
IPP5B	1584	mA
IPP5F2	1242	mA
IPP5F4	900	mA
IPP6N	360	mA
IPP6E	540	mA
IPP6R	288	mA
IPP6A	432	mA
IPP7	432	mA
IPP8	216	mA

continued

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.