

# Memory Module Specifications

## KSM32RD8/16MEI

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

CL22 Registered w/Parity 288-Pin DIMM

### DESCRIPTION

Kingston's KSM32RD8/16MEI 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 Table (page2)

### Module Assembly

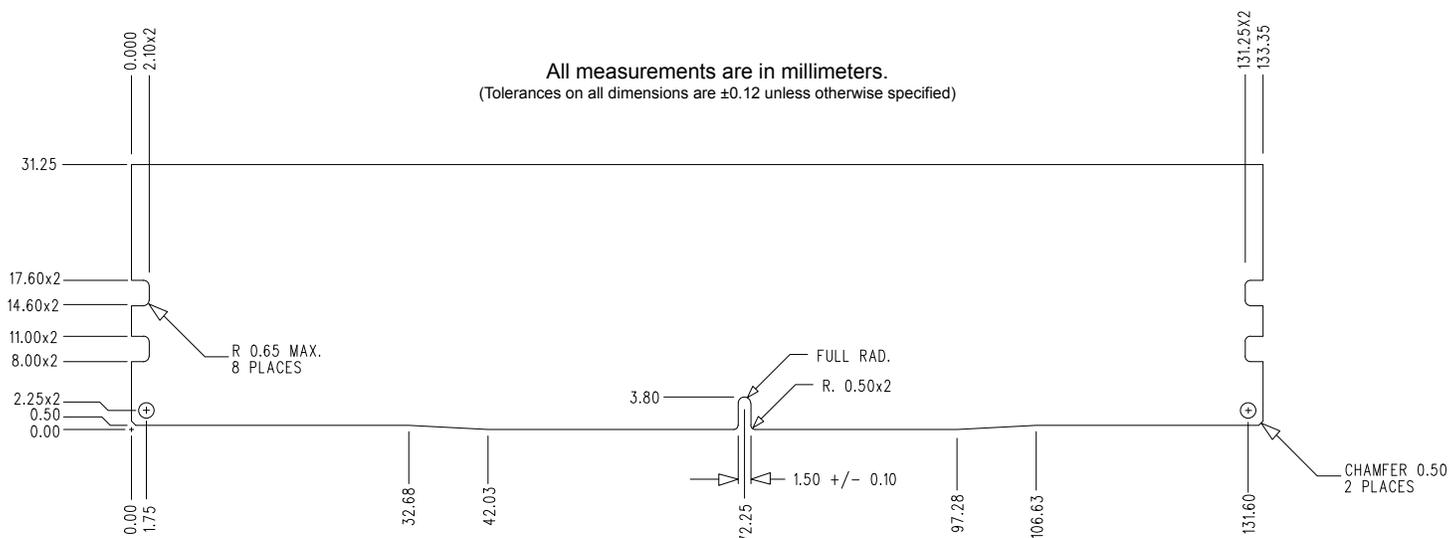
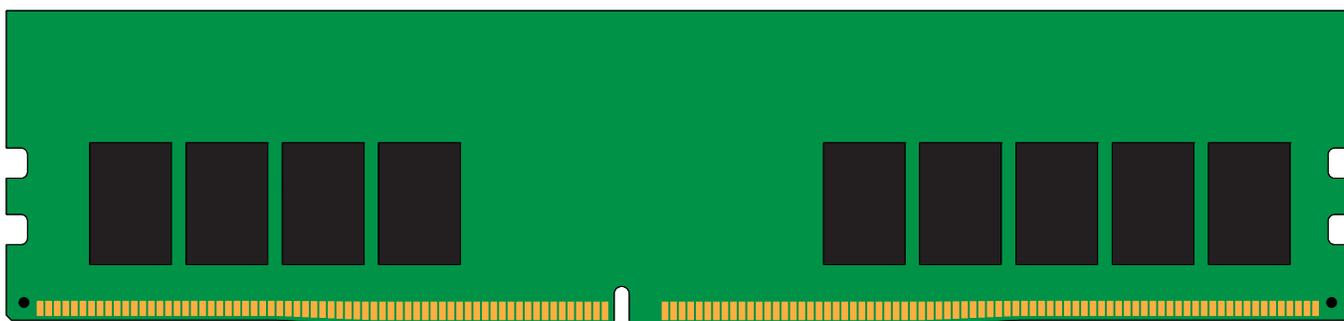
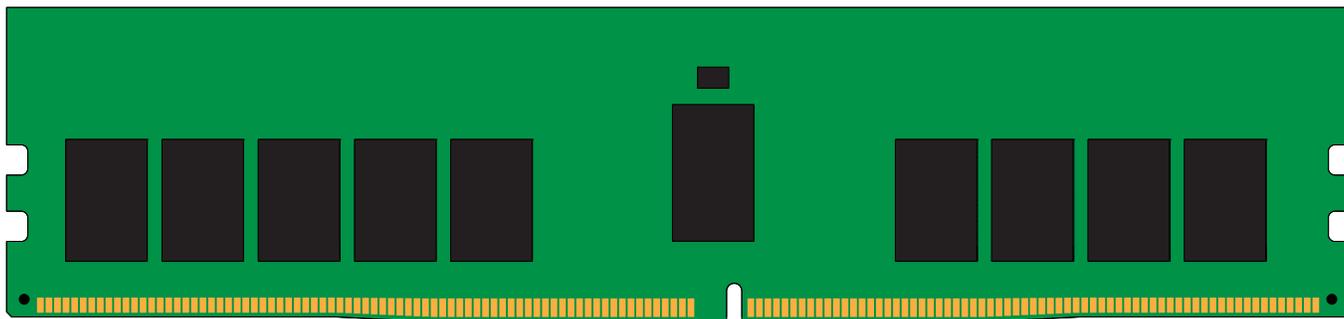
<b>DRAM:</b> MICRON (E-DIE)
<b>RCD:</b> IDT

Continued >>

## IDD Specifications

Symbol	3200	Units
I <sub>DD0</sub>	621	mA
I <sub>PP0</sub>	54	mA
I <sub>DD1</sub>	765	mA
I <sub>DD2N</sub>	594	mA
I <sub>DD2NT</sub>	594	mA
I <sub>DD2P</sub>	396	mA
I <sub>DD2Q</sub>	468	mA
I <sub>DD3N</sub>	774	mA
I <sub>PP3N</sub>	54	mA
I <sub>DD3P</sub>	594	mA
I <sub>DD4R</sub>	1800	mA
I <sub>DD4W</sub>	1548	mA
I <sub>DD5R</sub>	648	mA
I <sub>PP5R</sub>	72	mA
I <sub>DD6N</sub>	612	mA
I <sub>DD6E</sub>	1044	mA
I <sub>DD6R</sub>	378	mA
I <sub>DD6A</sub>	154.8	mA
I <sub>DD6A</sub>	378	mA
I <sub>DD6A</sub>	558	mA
I <sub>DD6A</sub>	1044	mA
I <sub>PP6X</sub>	90	mA
I <sub>DD7</sub>	1908	mA
I <sub>PP7</sub>	144	mA
I <sub>DD8</sub>	324	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.