

KSM24RD4/32MEI

32GB 2Rx4 4G x 72-Bit PC4-2400 CL17 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM24RD4/32MEI is a 4G x 72-bit (32GB) DDR4-2400 CL17 SDRAM (Synchronous DRAM) registered w/parity, 2Rx4, ECC, memory module, based on thirty-six 2G x 4-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-2400 timing of 17-17-17 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 = 2.25V 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: PC4-2400, 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)	17 cycles
Row Cycle Time (tRCmin)	46.16ns(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: MICRON (E-DIE)
RCD: IDT

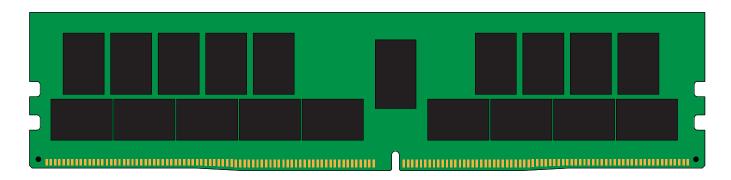
Continued >>

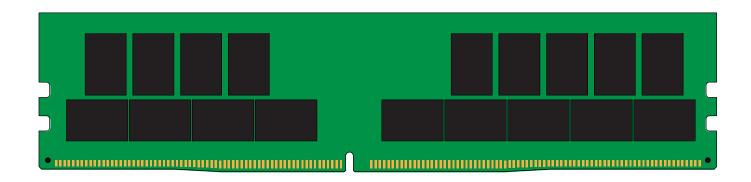
IDD Specifications

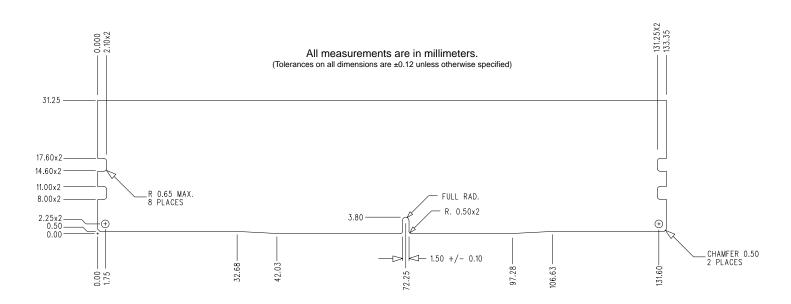
Symbol	2400	Units
I _{DD0}	1224	mA
I _{PP0}	108	mA
I _{DD1}	1440	mA
I _{DD2N}	1224	mA
I _{DD2NT}	1350	mA
I _{DD2P}	900	mA
I _{DD2Q}	1080	mA
I _{DD3N}	1548	mA
I _{PP3N}	108	mA
I _{DD3P}	1152	mA
I _{DD4R}	2610	mA
I _{DD4W}	2394	mA
I _{DD5R}	1494	mA
I _{PP5R}	144	mA
I _{DD6N}	1224	mA
I _{DD6E}	1656	mA
I _{DD6R}	756	mA
I _{DD6A}	309.6	mA
I _{DD6A}	756	mA
I _{DD6A}	1116	mA
I _{PP6X}	180	mA
I _{DD7}	3780	mA
I _{PP7}	360	mA
I _{DD8}	900	mA

kingston.com Document No. 4808541B Page 2

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.