

# Memory Module Specifications

## KSM24LQ4/64HAI

64GB 4Rx4 8G x 72-Bit PC4-2400

CL17 Load Reduced w/Parity 288-Pin DIMM

### DESCRIPTION

Kingston's KSM24LQ4/64HAI is a 8G x 72-bit (64GB) DDR4-2400 CL17 SDRAM (Synchronous DRAM) load reduced w/ parity, 4Rx4, ECC, memory module, based on thirty-six 4G x 4-bit DDP 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 Table (page 2)

### Module Assembly

<b>DRAM:</b> HYNIX (A-DIE)
<b>RCD:</b> IDT

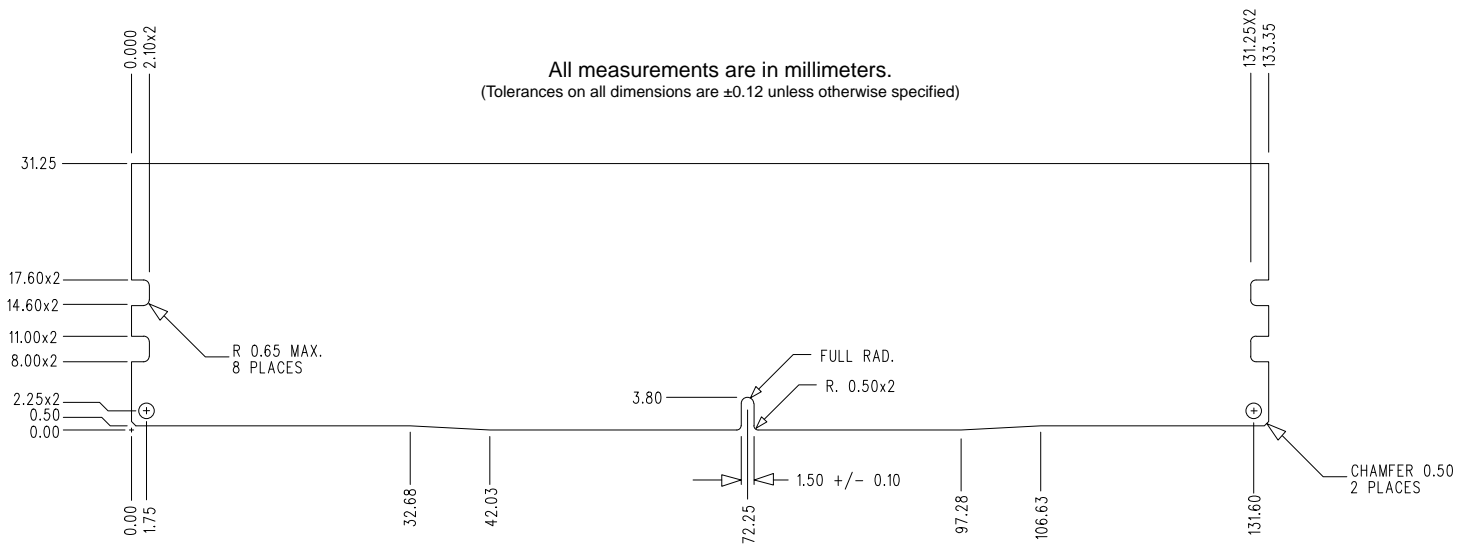
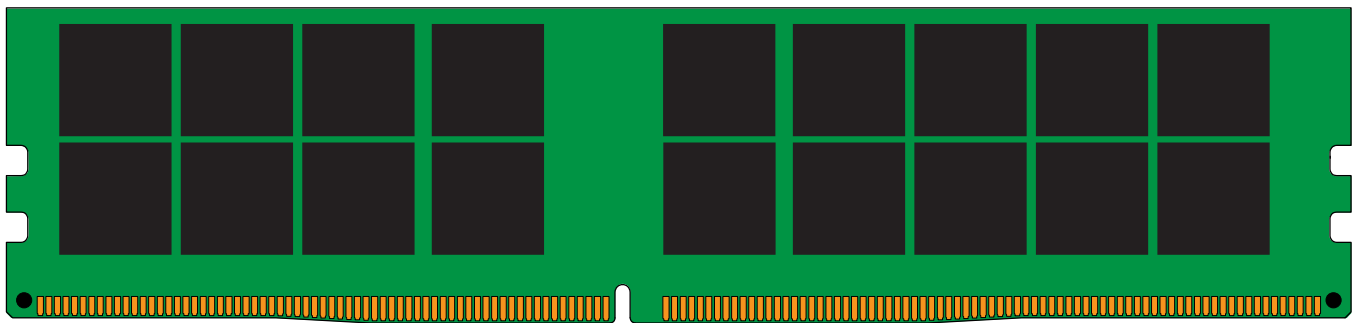
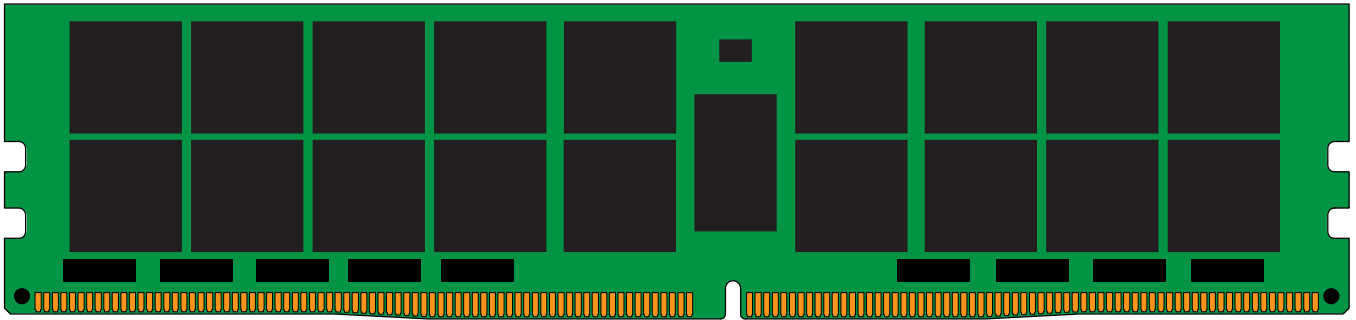
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## IDD Specifications

IDD		unit
Symbol	2400	
IDD0	4290	mA
IDD0A	4290	mA
IDD1	4299	mA
IDD1A	4335	mA
IDD2N	4092	mA
IDD2NA	4092	mA
IDD2NT	4452	mA
IDD2NL	3444	mA
IDD2NG	4020	mA
IDD2ND	4020	mA
IDD2NP	4020	mA
IDD2P	3246	mA
IDD2Q	3732	mA
IDD3N	5388	mA
IDD3NA	5388	mA
IDD3P	4614	mA
IDD4R	5551	mA
IDD4RA	5731	mA
IDD4RB	5713	mA
IDD4W	5539	mA
IDD4WA	5575	mA
IDD4WB	5449	mA
IDD4WC	5395	mA
IDD4WP	5809	mA
IDD5B	7134	mA
IDD5F2	6162	mA
IDD5F4	5892	mA
IDD6N	1901	mA
IDD6E	2333	mA
IDD6R	1325	mA
IDD6A	2333	mA
IDD7	6703	mA
IDD8	1181	mA

IPP		unit
Symbol	2400	
IPP0	281	mA
IPP1	299	mA
IPP2N	230	mA
IPP2P	230	mA
IPP3N	1080	mA
IPP3P	1080	mA
IPP4R	443	mA
IPP4W	443	mA
IPP5B	1343	mA
IPP5F2	1001	mA
IPP5F4	893	mA
IPP6N	288	mA
IPP6E	504	mA
IPP6R	295	mA
IPP6A	504	mA
IPP7	623	mA
IPP8	230	mA

## MODULE DIMENSIONS



The product images shown are for illustration purposes only and may not be an exact representation of the product.  
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