

# Memory Module Specifications

## KSM24RS8/8HCI

8GB 1Rx8 1G x 72-Bit PC4-2400

CL17 Registered w/Parity 288-Pin DIMM

### DESCRIPTION

Kingston's KSM24RS8/8HCI is a 1G x 72-bit (8GB) DDR4-2400 CL17 SDRAM (Synchronous DRAM) registered w/ parity, 1Rx8, ECC, memory module, based on nine 1G x 8-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 = 2.41V 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: PC4-2400, 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

**DRAM:** HYNIX (C-DIE)

**RCD:** IDT

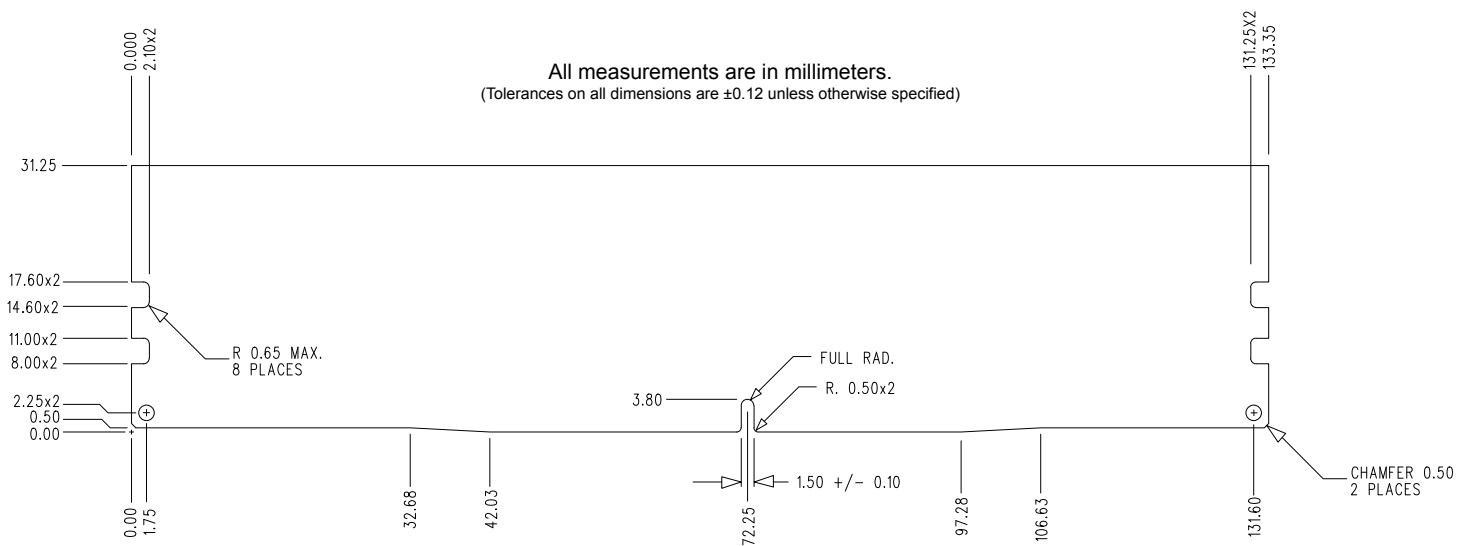
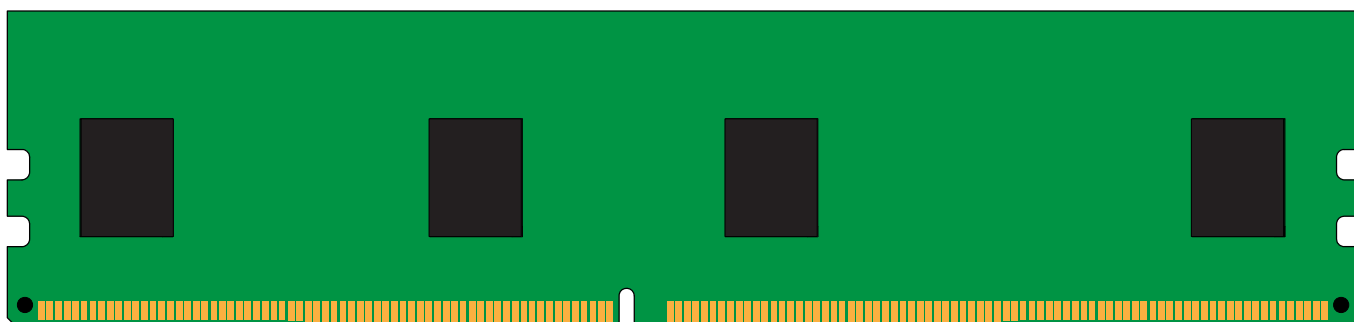
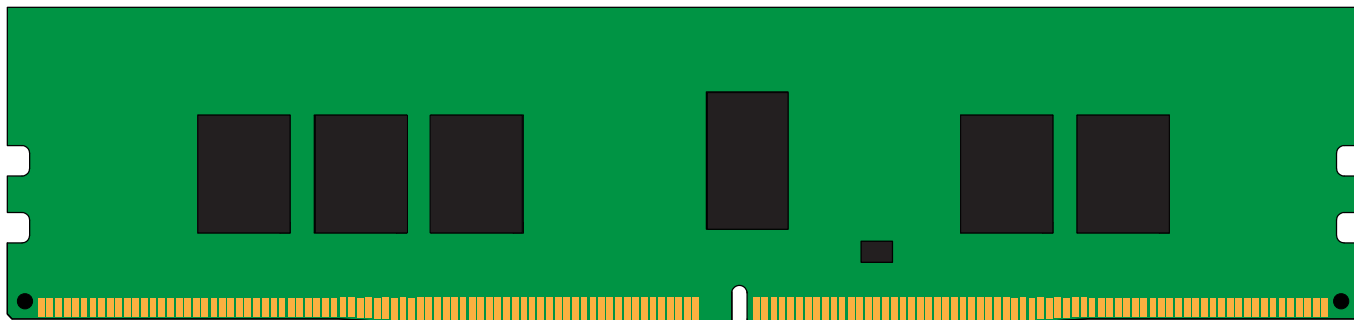
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## IDD Specifications

IDD		unit
Symbol	2400	
IDD0	817	mA
IDD0A	817	mA
IDD1	939	mA
IDD1A	966	mA
IDD2N	736	mA
IDD2NA	736	mA
IDD2NT	781	mA
IDD2NL	673	mA
IDD2NG	736	mA
IDD2ND	727	mA
IDD2NP	736	mA
IDD2P	477	mA
IDD2Q	718	mA
IDD3N	826	mA
IDD3NA	826	mA
IDD3P	576	mA
IDD4R	1578	mA
IDD4RA	1605	mA
IDD4RB	1605	mA
IDD4W	1434	mA
IDD4WA	1461	mA
IDD4WB	1389	mA
IDD4WC	1416	mA
IDD4WP	1569	mA
IDD5B	2257	mA
IDD5F2	1771	mA
IDD5F4	1636	mA
IDD6N	211	mA
IDD6E	274	mA
IDD6R	148	mA
IDD6A	274	mA
IDD7	1794	mA
IDD8	130	mA

IPP		unit
Symbol	2400	
IPP0	50	mA
IPP1	59	mA
IPP2N	29	mA
IPP2P	29	mA
IPP3N	144	mA
IPP3P	144	mA
IPP4R	171	mA
IPP4W	171	mA
IPP5B	567	mA
IPP5F2	360	mA
IPP5F4	315	mA
IPP6N	45	mA
IPP6E	63	mA
IPP6R	37	mA
IPP6A	63	mA
IPP7	153	mA
IPP8	29	mA

## MODULE DIMENSIONS



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