

Memory Module Specifications

KSM24RS4/16MEI

16GB 1Rx4 2G x 72-Bit PC4-2400

CL17 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM24RS4/16MEI is a 2G x 72-bit (16GB) DDR4-2400 CL17 SDRAM (Synchronous DRAM) registered w/ parity, 1Rx4, ECC, memory module, based on eighteen 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)

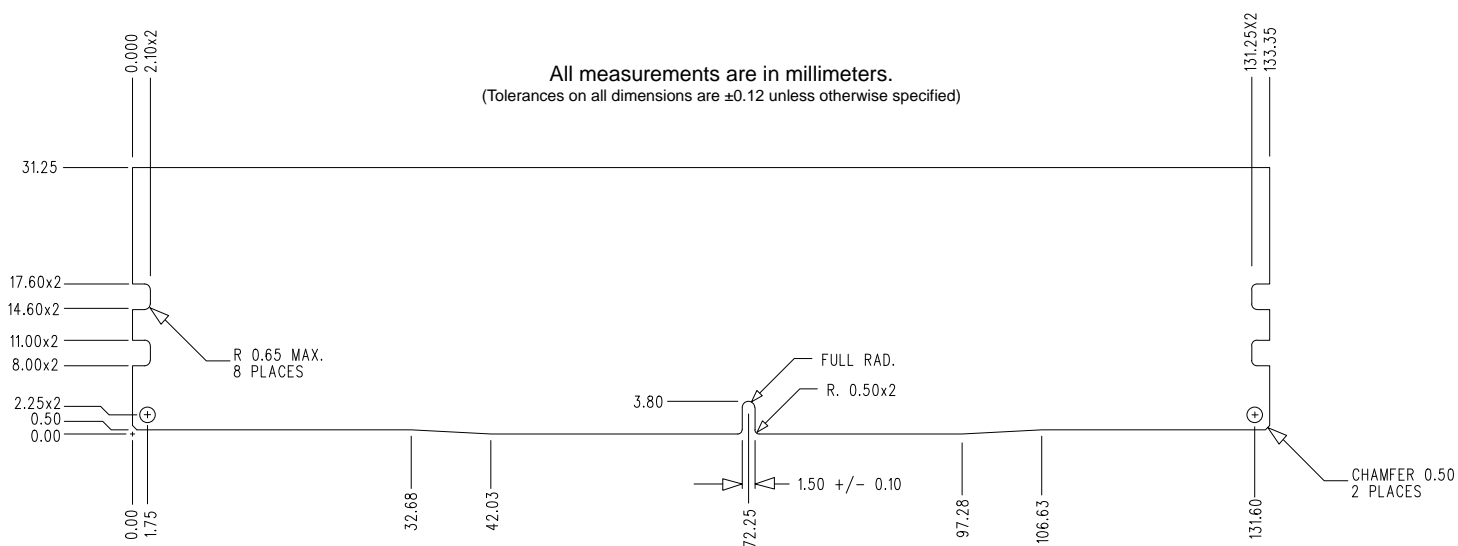
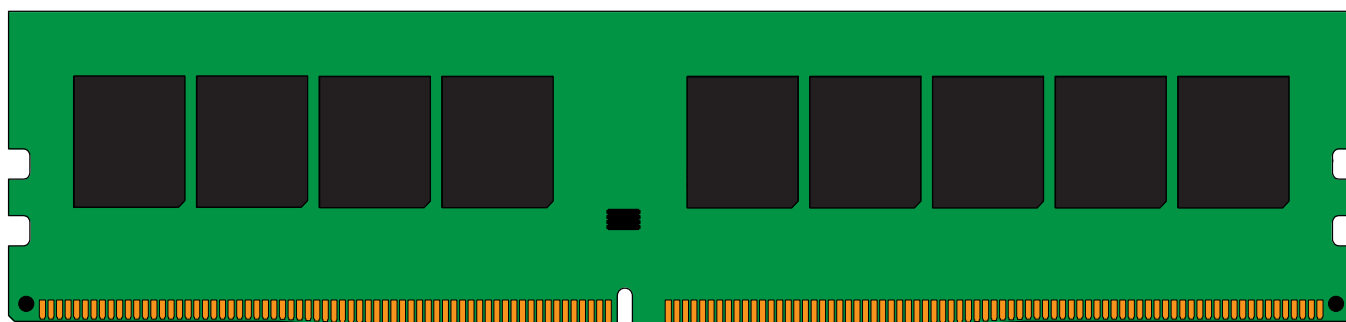
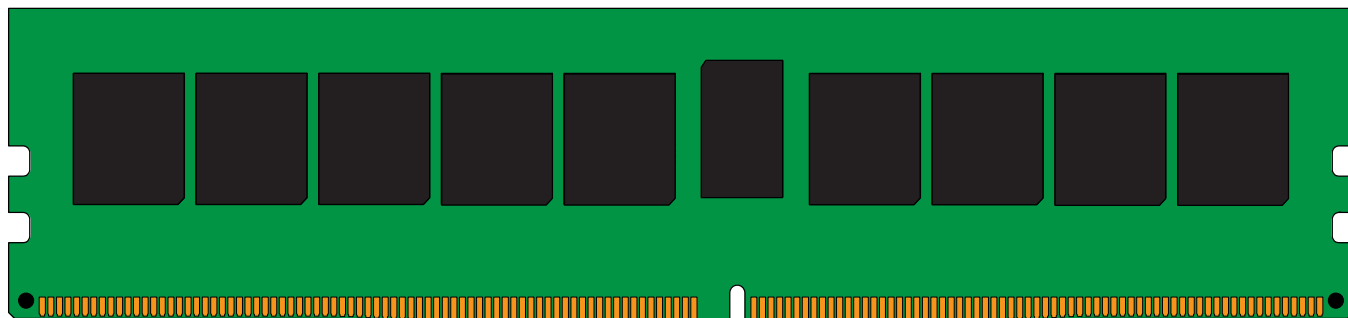
RCD: IDT

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IDD Specifications

| Symbol | 2400 | Units |
|-------------|-------|-------|
| I_{DD0} | 774 | mA |
| I_{PP0} | 54 | mA |
| I_{DD1} | 990 | mA |
| I_{DD2N} | 612 | mA |
| I_{DD2NT} | 900 | mA |
| I_{DD2P} | 450 | mA |
| I_{DD2Q} | 540 | mA |
| I_{DD3N} | 774 | mA |
| I_{PP3N} | 54 | mA |
| I_{DD3P} | 576 | mA |
| I_{DD4R} | 2160 | mA |
| I_{DD4W} | 1944 | mA |
| I_{DD5R} | 1044 | mA |
| I_{PP5R} | 90 | mA |
| I_{DD6N} | 612 | mA |
| I_{DD6E} | 828 | mA |
| I_{DD6R} | 378 | mA |
| I_{DD6A} | 154.8 | mA |
| I_{DD6A} | 378 | mA |
| I_{DD6A} | 558 | mA |
| I_{PP6X} | 90 | mA |
| I_{DD7} | 3330 | mA |
| I_{PP7} | 306 | mA |
| I_{DD8} | 450 | mA |

MODULE DIMENSIONS



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