LPDDR5 CAMM2 LGA644 CONN PRODUCT FAMILY

DEREA

RELEVANT INFORMATION

Traditional SO-DIMM connectors can no longer meet the functional requirements of high-speed transmission in future notebooks. As a member of JEDEC, DEREN actively participated in the discussion of new design schemes and independently developed LPDDR5 CAMM2 connectors, changing the traditional card type to double-sided LGA package and compacted type.

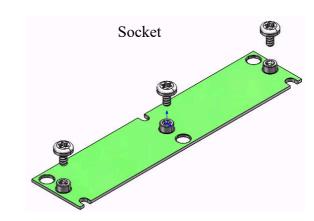
LPDDR5 CAMM2 connector adopts double-sided terminal compression contact design, which eliminates the welding process, effectively improves the process efficiency, eliminates the risk caused by product welding abnormalities, and save space for the height design of the whole sets.

- The traces on the mainboard for the RAM to communicate with the CPU—can be much shorter with CAMM2 compared to SO-DIMM. Shorter electrical paths require less power and can reach higher speeds.
- The signal pins of SO DIMM are isolated by GND pins, but the signal pins of CAMM2 are surrounded by GND pins, which will have better X-talk performance.
- CAMM2 has much lower Z-height than SO-DIMM. SO-DIMM modules are taller, especially when you stagger more than one, taking up crucial space that can be used for cooling or a different board layout.
- the reduced footprint on the PCB underneath the CAMM2 module also saves valuable space for other motherboard components.

FEATURE

- Voltage: 25 Volts AC (rms).
- Recommended torque for screw fastening: 0.1~0.2N.m (14.2~28.3 oz.in).
- Normal Force Terminal (fully compressed): Max 35gf per pin.
- Retention Force -Terminal: 50gf minimum per pin; maximum movement of contact of 0.38 mm.
- Continuous Temperature: 15° C to 85° C.
- Operating temperature : -55°C to 85°C.





Product

TARGET MARKET

■ LPDDR5 CAMM2 is aimed at highperformance notebooks and mainstream desktops.

BENEFIT

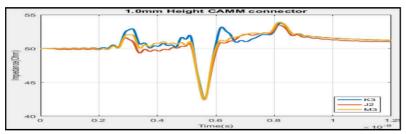
- Meet JEDEC standard.
- Meet transmission efficiency.
- Fits for customer process.

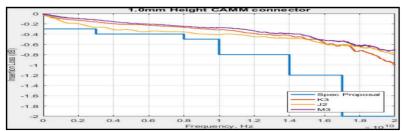
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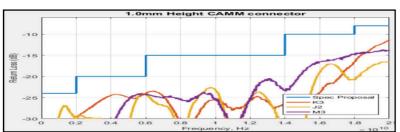


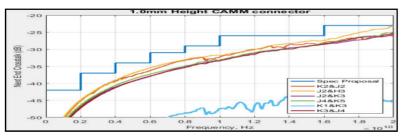
TECHNICAL INFORMATION

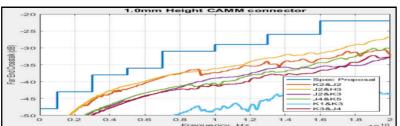
SIGNAL INTEGRITY PERFORMANCE

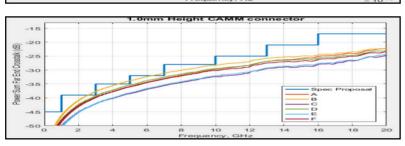












MECHANICAL PERFORMANCE

- Normal Force: max35 g-f per pin
- Retention Force Terminal : min 50 g-f per pin
- Durability: 25times.
- Dye and Pry: <25% solder joint crack
- Recommended fastening torque (mounting): 0.1~0.2 N.m (14.2~28.3 oz.in)
- Recommended fastening retention (un-mounting): 0.08 N.m. (11.3 oz.in) minimum

ELECTRICAL PERFORMANCE

- Low level contact resistance :Initial single pin 50mΩ max. after reliability test and initial LLCR fluctuations of 20mΩ max.
- Dielectric withstanding voltage: 500VAC RMS.
- Current rating: 1.0A/pin De-rate.
- Insulation resistance: 250 MΩ Min. (Initial) \sim 100 MΩ Min. (Final)
- Voltage: 25 Volts AC (rms)

ENVIRONMENTAL

- Flammability: UL 94 V-0.
- Compliant with RoHS directive 2011/65/EU

SPECIFICATION

- SPEC: Meet JEDEC standard.
- DEREN PRODUCT SPEC: DR-PS-0142.

MATERIALS

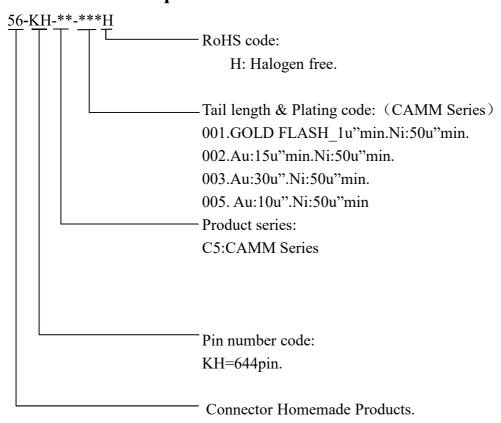
- Base Housing: LCP, UL 94 V-0.
- Contact: Copper Alloy.
- Finish: Au Plating on contact area (SEE TABLEA) [50u"~100u"] Ni plating over all.
- Back plate: stainless steel.

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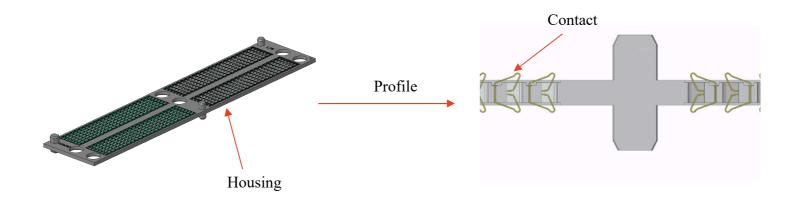


PART NUMBERS & STRUCTRUE

Part Number Description:



Product Structure



Socket Assembly