

CPU SOCKET PRODUCT FAMILY

LGA 1700 SOCKET-V0



DEREN

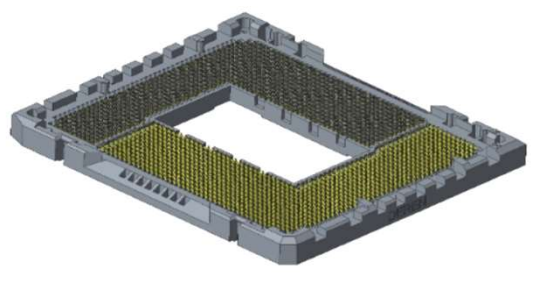
RELEVANT INFORMATION

At present, the interface methods commonly used by CPU are contact type and pin type. By product type can be divided into LGA, PGA and BGA. LGA1700, also known as Socket V0, is used in Intel 12 generation Core product series. The pin arrangement adopts the ' double L ' design. Compared with the previous generation Socket-H, the number of pins of the product increases from 115X-1200 to 1700. In the package, the overall package is changed from square to rectangular, and the size is extended by about 7.5 mm ; in the ball planting process, the use of hot ball planting technology, to ensure that the flatness of the iron plate $\leq 0.20\text{mm}$, can greatly reduce the false welding defect rate, optimize the chip space layout and strengthen the stability of the chip signal transmission. DEREN is developed directly with Intel as its own brand. It is the only company in the mainland that can independently complete the development and mass production of CPU socket connectors, and is in the top three in the world.

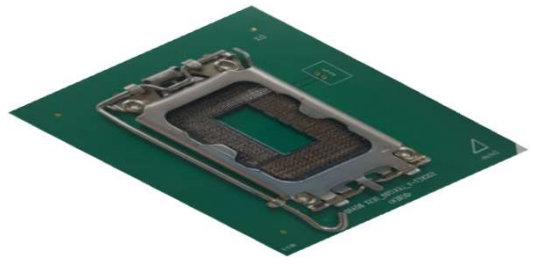
- An array electrode contact package is made on the bottom of the chip, which can accommodate more input and output pins in a smaller package.
- Total number of contacts for LGA 1700, 0.80mm orthogonal.
- Support diverse latch designs to meet customer different application fields.
- This product defines surface mount (Land Grid Array) socket

FETURE

- Data rate transfer up to 32GT/s.
- Hot Ball-Attach Process.
- Static Pre-load compressive range ILM at 400.5N ~ 845.5N.25.
- Finish: Au15" Plating in contact area and 50u"min Ni plating over all.
- Operating temperature : -40°C to 100°C.



Socket



Product

TARGET MARKET

- Applies to Intel 12generation Core processors.

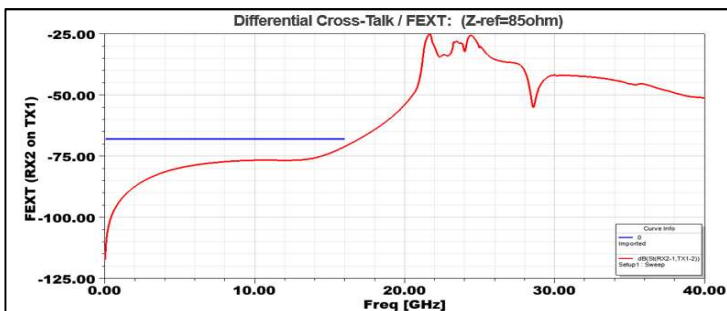
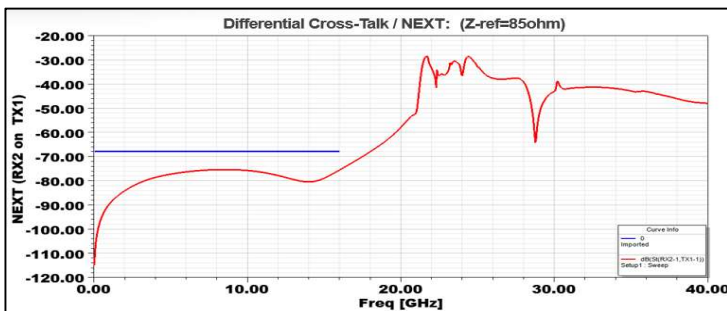
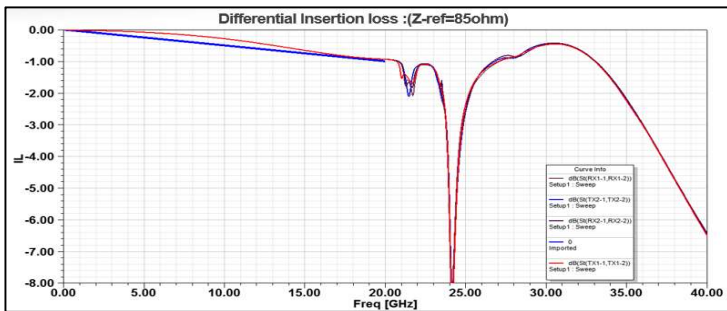
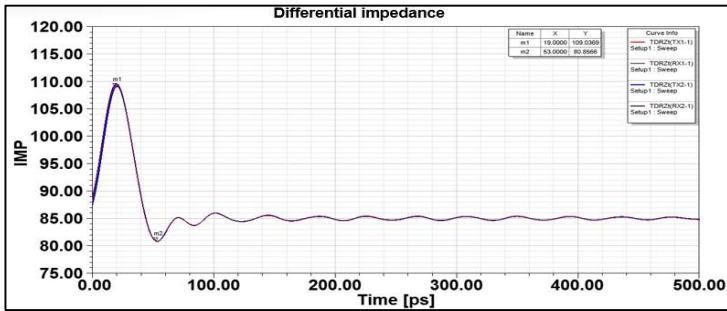
BENEFIT

- Meet Intel Design guidelines 1.0.
- Meet transmission efficiency.
- Fits for customer process.



TECHNICAL INFORMATION

SIGNAL INTEGRITY PERFORMANCE



MECHANICAL PERFORMANCE

- Static Pre-Load Compressive: 166.6N-416.5N.
- Static Compressive per Contact: 10gf-25gf.
- Durability: 30times.

ELECTRICAL PERFORMANCE

- Average Low level contact resistance : $\leq 27m\Omega$.
- Insulation resistance: 800 M Ohms.
- Dielectric withstanding voltage: 360 Volts RMS .
- Current rating: 0.5A/pin De-rate.

ENVIRONMENTAL

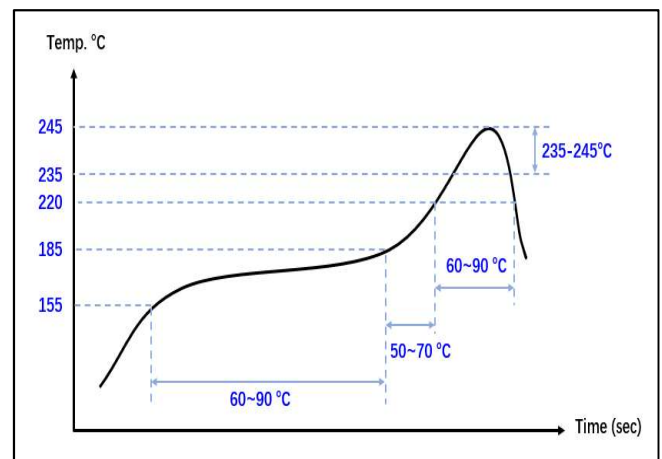
- Flammability: UL 94 V-0.
- Low halogen: 900ppm max. Cl, 900ppm max Br.
- Compliant with RoHS directive 2011/65/EU.
- Operating Temperature: $-40^{\circ}C$ to $+100^{\circ}C$.

SPECIFICATION

- SPEC: Intel Design guidelines 1.0.
- DEREN PRODUCT SPEC: DR-PS-0128.

APPLICATION SPEC

- Reflow temperature profile:

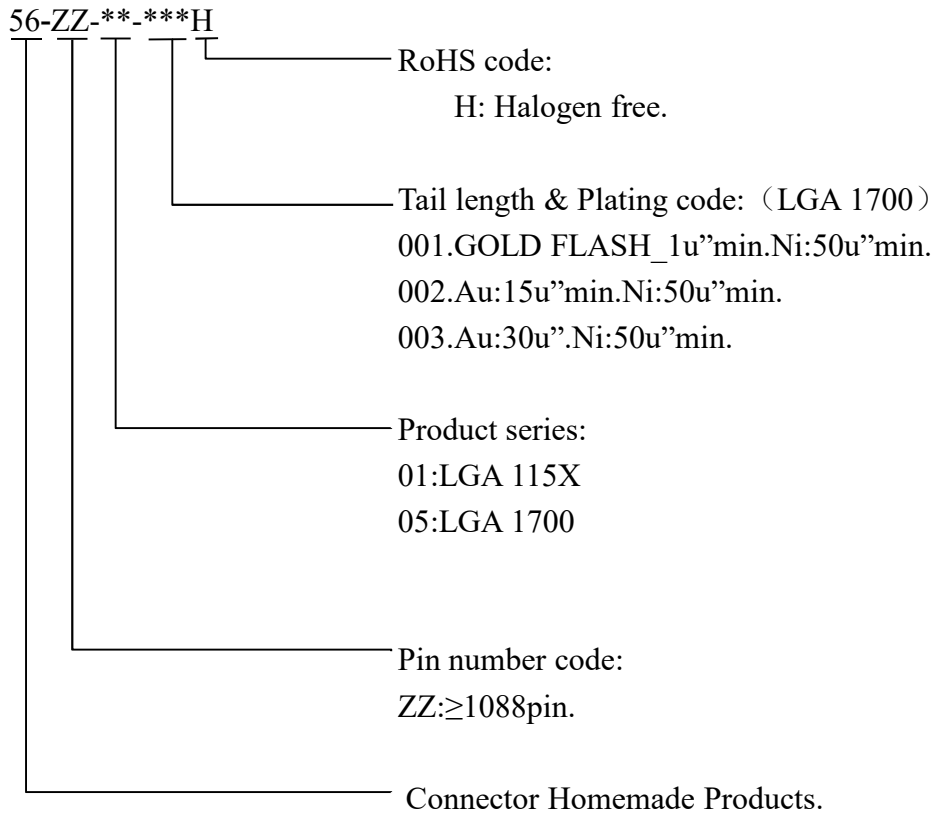


- Recommended stencil thickness: 0.13mm.

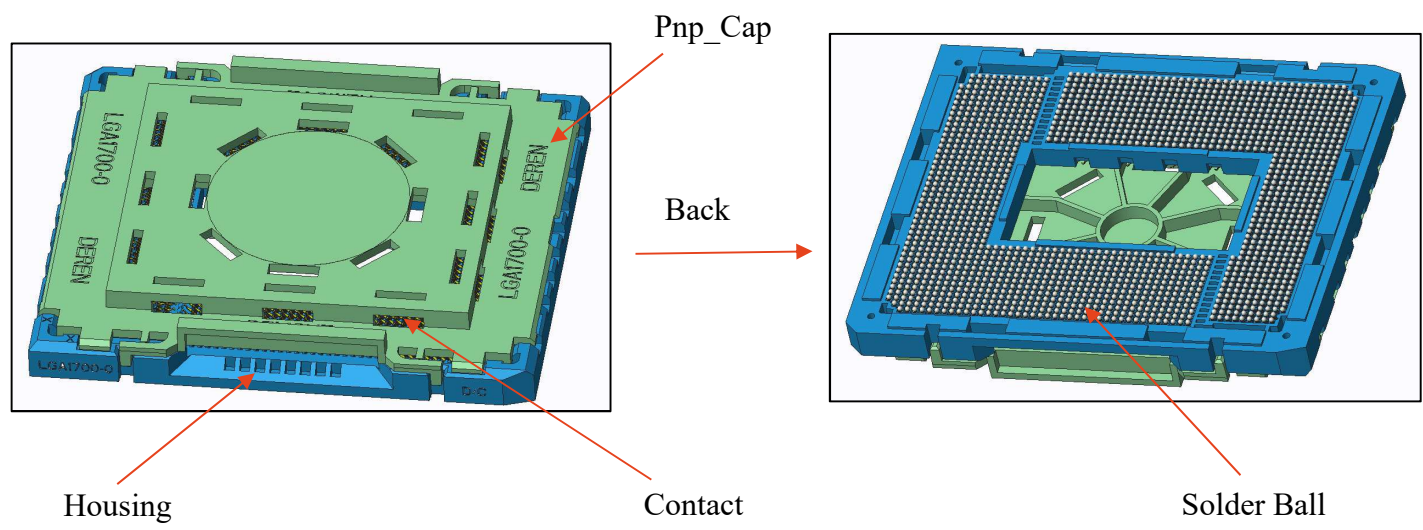


PART NUMBERS & STRUCTURE

Part Number Description:



Product Structure



Socket Assembly