Reliable Connections for Next Generation Packaging

New solder ball product that simultaneously achieves thermal fatigue resistance and drop impact resistance

Our new "M770" is a breakthrough solder ball product that has successfully achieved both thermal fatigue resistance and drop impact resistance which are opposite material characteristics. It is optimal for smartphones, tablet PCs or on-board equipment used under severe environments. In addition, the product is capable of suppressing the formation of intermetallic compound layers, which break due to drop impact, and is compatible with every type of surface treatment material. The product is available in various sizes according to application purposes, and will also realize a reduction in cost.

Solder ball that withstands severe usage conditions

M770 Sn-2Ag-Cu-Ni
High reliability solder ball
M770

Simultaneously realizing high thermal fatigue resistance and drop impact reliability

- Meets contradicting requirements through the use of technologies to control precipitation strengthening and interface reaction
- Excellent compatibility with various types of surface treatment materials (Cu, Ni, Au)
- Optimal for ball mounting of mobile equipment including smart phones and on-board equipment

Specifications

- Evaluation on Cu/OSP PCB
  - Drop impact resistance (Cu/OSP PCB)
  - Thermal fatigue resistance (Cu/OSP PCB)

- Evaluation on electroless Ni/Au plated PCB
  - Drop impact resistance (electroless Ni/Au plated PCB)
  - Thermal fatigue resistance (electroless Ni/Au plated PCB)

- Material selection according to purpose and application
  - M60
  - M61
  - M770

Material structures

SMIC
Senju Metal Industry Co., Ltd.