

APPLICATION NOTE

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Universal Contact Family

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The Challenge

Surface mount components with their contact system to the board have produced several problems over the years for the hand set manufacturers. The major problems are uneven spring forces and no pre-load forces resulting in poor contact resistance values or failures during vibration testing. In many cases, up to ten contacts are used per handset for various applications. Qualification time and associated costs also are an issue.



Product Features

- Small size with a minimum pitch of 1,25mm
- Pre-load after 3x reflow at 220 degrees Celsius is .30 N
- Anti-lifting feature
- Contact resistance: 20m ohms
- Max current rating: 2.0 - 3.0 amps peak, depending on the contact
- Contact is a stamped single piece design
- Different configurations available, i.e. 2-way, 3-way, 4-way

Benefit to the Customer

- Robust design, low cost
- Tape and reel packaging
- Eliminates the need for qualification on various spring contacts, standardization reducing customer time and costs
- Can be positioned in any angle resulting in improved design freedom
- Designed for pick and place process
- Compliant with WEEE and RoHS

The ITT Solution ...

ITT developed a range of contacts from 1.3mm to 4.0mm free height. All the variants are a clone of the original 2.5mm version eliminating the challenge issues. The contacts are manufactured as a single piece stamped product, incorporating a pre-load force along with several other features. It provides standardized interfaces across multiple components. The family consists of the following versions; 1.3mm, 1.8mm, 2.5mm, 3.5mm and 4.0mm (free heights) with deflections ranging from .7mm's to 1.5mm's. Universal Contacts can be gang mounted in a plastic shell producing an unlimited amount of interfaces.

Applications

- Solderless component interconnect
- I/O connector
- Battery contacts
- Antenna contact
- Grounding contact
- SIM contacts
- Board to board interconnect

To see the entire line of
Universal Contact -
 please view the brochure
 on www.ittcannon.com



For application assistance, please contact:

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