



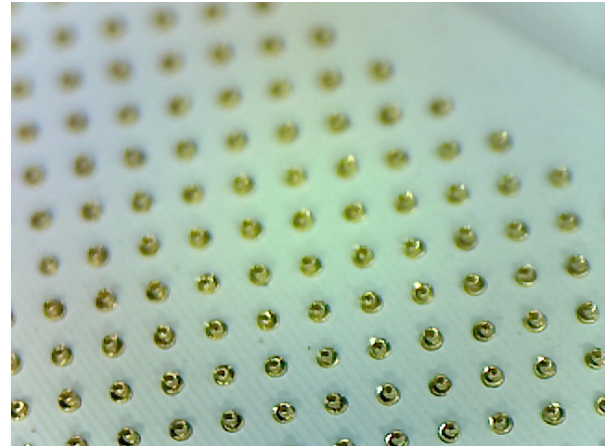
Custom Test Sockets & Interconnects

Winslow designs and manufactures unique test socket and interconnect solutions for a broad range of package types and lead pitches. Our design team use state-of-the-art computer-aided design tools, including 3D mechanical modelling, for the socket design. At this point they can supply the recommended footprint if this hasn't already been determined by the target. Following approval the product enters computer-aided manufacturing for fabrication.

Whether the requirement is for qualification, prototyping, development, device stability or mass production the *Winslow Pogo Pin* sockets have been engineered to ensure device alignment with high wear resistance and low coefficient of thermal expansion and utilises tapered guides to ensure ease of entry and integral heat-sinks when required.

Where real estate is a premium the *Winslow Delta Clip* offers an easy snap-on fit which doesn't require any bulky mechanical fixings or adhesive. Its unique contact style ensures continuity with each device termination. For instances where an individual signal needs to be put under test then the *Winslow Micro Clip* fits the bill.

For times when the lead time for a custom solution jeopardises a project or delivery to your customer the *Winslow Elastomeric Socket* can be engineered and manufactured in a little as seven days



956 BGA x 0.4mm Pitch Test Socket



Elastomeric QFN Test Socket



With the Industry gravitating towards denser arrays and smaller IC packages, Winslow ensure to integrate new materials in the support of pitch requirements to 0.5mm and less. The engineering plastics used in the manufacture of Winslow Test Sockets conform to the rigorous and precise requirements with low coefficient of expansion, high wear resistance and spring probe integrity absolutely vital for reliability at pitches down to 0.3mm to ensure compliance between the device and contacts.

To probe and verify at cyclical temperatures between -55C to 155C places extreme mechanical demands on a socket. Dimensional stability, wear and compression affected by stress, moisture absorption and temperature changes can lead to misalignment of socket probes to the device. Sockets used for burn-in require long-term stability to maintain these target properties.

For a test socket, the temperatures are not so high or the exposure as long. Winslow has a clear understanding of Engineering Plastics to meet your demand required from an effective socket partner.

Engineering Plastics

- PEEK
- CERAMIC PEEK
- CERAMA PEEK
- SEMITRON ESD PEEK
- SEMITRON ESD ULTEM
- VESPEL SP-1 POLYIMIDE
- ULTEM 2300
- TORLON 5530
- TORLON 4203

WK Spring Contact

- Minimum Pitch: 0.4mm
- Bandwidth: 23GHz
- Self Inductance: 2.4nH
- Mutual Inductance: 0.649nH
- Capacitance: 0.464pF
- Resistance: 30.4 mOhms
- Max Current: 3.1A Continuous.
- Current Leakage: 526 pA @ 10V

WQ and WB Spring Contacts.

- 0.3, 0.4, 0.5 and 1mm micro pins.
- Suitable for Test and Burn-In
- Non Magnetic – MEMs Gyro.
- Bandwidth: 10.8GHz
- Self Inductance: 1.27nH
- Mutual Inductance: 0.38nH
- Capacitance: 0.49pF
- Resistance: <30 mOhms
- Max Current: 5.1 Amp Continuous.

Test Probe and Socket Capability

- 0.3mm Minimum Pitch
- MeMs Gyro
- High Current
- Kelvin
- High Frequency
- Switching
- IC Package Direct Test Clips
- Discrete lead Micro Clips to 0.2mm pitch.