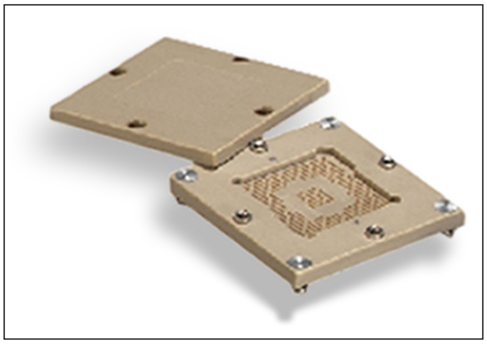
# CSP/BallNest™ Hybrid Socket

## FEATURES

- Any grid size available on 0.30mm pitch or larger
- Socket lid nests device into socket for a reliable connection
- Suitable for prototyping, test, or burn-in of CSP, BGA, µBGA and LGA devices
- ZIF style socket using Aries solderless, gold-plated pressure mount Spring Probe
- Special lid designs and/or materials can be quoted
- Socket easily located, mounted & removed from PCB
- Signal path during test only 0.077 [1.96]
- 4-point crown insures “scrub” on solder oxides. Consult factory for other available probe styles
- The gold over nickel plated compression spring probes leave very small witness marks on the bottom surface of the device solder balls



NOTE: Aries specializes in custom design and production. In addition to the standard products shown on this page, special materials, platings, sizes, and configurations can be furnished, depending on quantities. Aries reserves the right to change product specifications without notice.

## SPECIFICATIONS

- Body Material: PEEK or TORLON
- 1dB Bandwidth: 1GHz (0.80mm pitch) (large probe)
- Estimated Contact Life: 500,000 cycles
- Compression Spring Probes: heat-treated Beryllium-Copper with 30µ min. [0.75µ] Gold per Mil-G-45204 over 30µ min. [0.75µ] Nickel per SAE-AMS-QQ-N-290
- Contact Force : 15g per contact on 0.30-0.35mm pitch
  : 16g per contact on 0.40-0.45mm pitch
  : 25g per contact on 0.50-0.75mm pitch
  : 25g per contact on 0.80mm pitch or larger
- Screws and Alignment Pins: Stainless Steel
- Inserts: Brass Alloy per QQ-B-626, Tin-plated
- Operating Temperature Range: -55ºC to 150ºC [-67º to 302º]

## MOUNTING CONSIDERATIONS

- Sockets must be handled with care when mounting or removing sockets to/from PCB
- Test PCB Diameter “P” : 0.025 [0.64] (large probe 0.80mm pitch and larger)
  : 0.015 [0.38] (small probe 0.50-0.75mm pitch)
  : 0.012 [0.31] (small probe 0.40-0.45mm pitch)
  : 0.009 [0.23] (small probe 0.30-0.35mm pitch)
- Test PCB Diameter Spring Probe Pad Plating Spec: 30µ" min. [0.75µ] Gold per MIL-G-45204 over 30µ" min. Nickel per SEA-AMS-QQ-N-290. Pad must be the same height as top surface of PCB. Please refer to the Custom Socket Drawing supplied by Aries after receipt of your order for your specific application.

## ORDERING INFO

CONSULT FACTORY FOR P/N

A detailed device drawing must be sent to Aries to quote and design a socket.

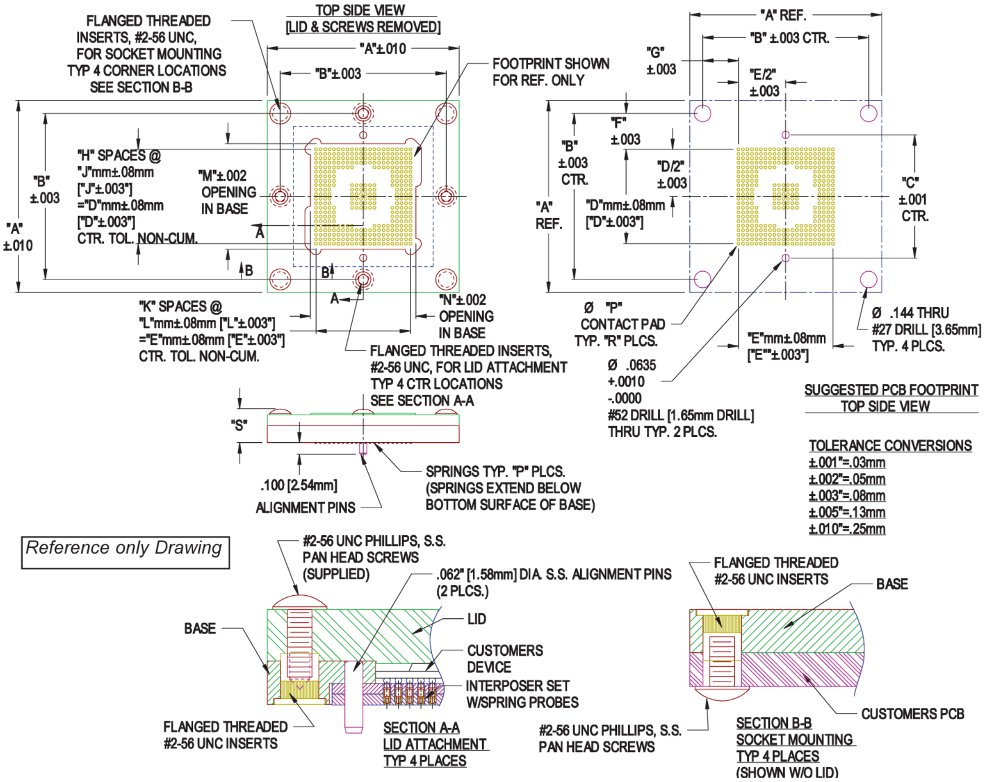
See Data Sheet...

**23021** µBGA up to 6.5mm
**23017** µBGA up to 13mm
**23018** µBGA up to 27mm
**23018-APP** w/Adj Pressure Pad
**23019** µBGA up to 40mm
**23020** µBGA up to 55mm

**24013** RF up to 6.5mm
**24008** RF up to 13mm
**24009** RF up to 27mm
**24009-APP** w/Adj Pressure Pad
**24011** RF up to 40mm
**24012** RF up to 55mm

**24010** RF Machined Socket
**23022** Kelvin Test Socket

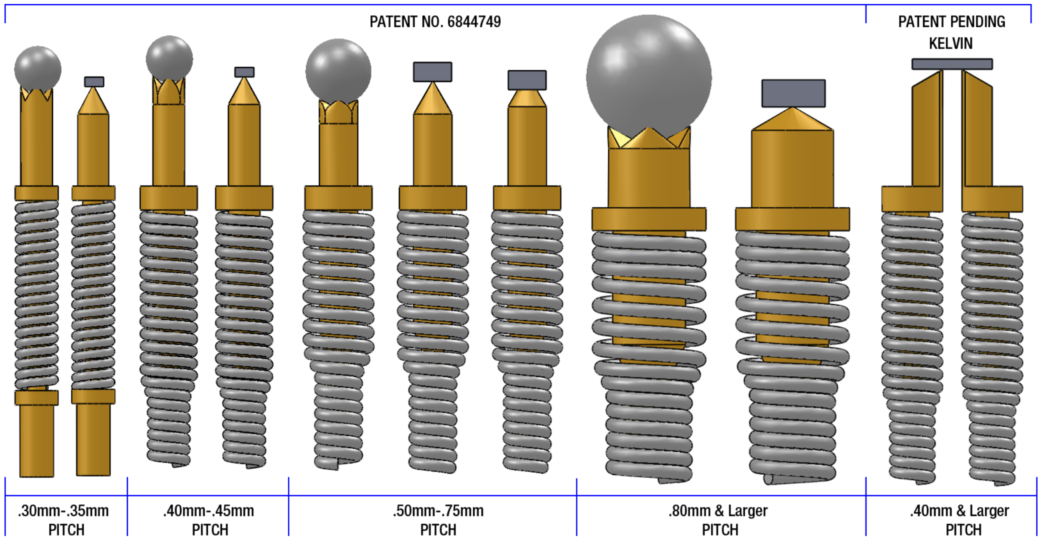
# CSP/BallNest™ Hybrid Socket



ALL DIMENSIONS: INCHES [MILLIMETERS]

ALL TOLERANCES: ±0.005 [0.13]
UNLESS OTHERWISE SPECIFIED

CONSULT FACTORY for DIM. "A" - "S"



**SPRING PROBES**