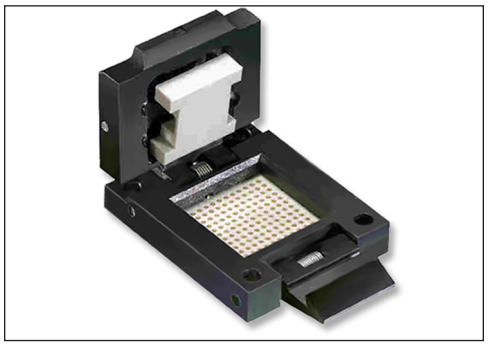
CSP/MicroBGA Test & Burn-In Socket for Devices up to 13mm Square

FEATURES

- For Test & Burn-In of CSP, µBGA, DSP, LGA, SRAM, DRAM and Flash Devices. Consult factory for QFP applications
- Any pitch device on 0.30mm pitch or higher
- Socket is easily mounted and removed to & from the BIB due to solderless pressure mount compression spring probes which, are accurately located by two molded plastic alignment pins and mounted with four stainless steel screws
- The gold over nickel plated compression spring probes leave very small witness marks on the bottom surface of the device solder balls
- Small overall socket size/profile allows maximum number of sockets per BIB and BIB's per oven, while being operator friendly
- Standard molded socket format can accommodate any device package of 13mm or smaller, by using machined (for small quantities) or custom molded (for large quantities) pressure pads and interposers
- Pressure pad compression spring provides proper force against device and allows for height variations in device thickness
- 4-point crown insures "scrub" on solder oxides
- Signal path during test only 0.077 [1.96]



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

ORDERING INFORMATION

Get an Insta-Quote

GENERAL SPECIFICATIONS

- MOLDED SOCKET COMPONENTS: UL 94V-0 Ultem
- MACHINED SOCKET COMPONENTS: UL 94V-0 PEEK or Torlon
- ALL HARDWARE: Stainless Steel
- COMPRESSION SPRING PROBE: heat-treated BeCu
- COMPRESSION SPRING PROBE PLATING: 30µ [0.75µ] min. Au per Mil-G-45204 over 30µ [0.75µ] min. Ni per SAE-AMS-QQ-N-290
- DURABILITY: 500,000 cycles min.
- 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
- OPERATING TEMPERATURE: -55°C [-67°] min. to 150°C [302°] max.
- TYPICAL AVERAGE BURN-IN TEMPERATURE: 150°C max.

MOUNTING CONSIDERATIONS

- See "PCB FOOTPRINT TOP VIEW" for requirements
- REQUIRES: four #2-56 screws and PEM nuts for mounting (not supplied – mounting holes size shown may differ depending on PEM nut selected)
- NOTE: Sockets must be handled with care when mounting or removing to/from BIB to avoid damaging sensitive spring contacts
- TEST PCB DIAMETER "G" : 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: 30µ [0.75µ] min. Au per MIL-G-45204 over 30µ [0.75µ] min. Ni 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.

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

See Data Sheet...

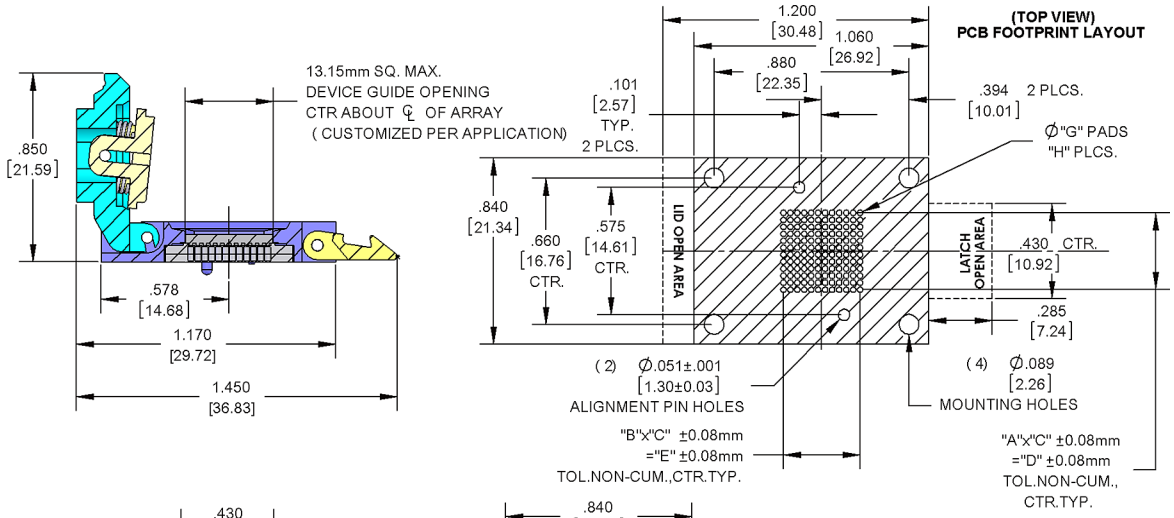
23021 µBGA up to 6.5mm
23018 µBGA up to 27mm
23018-APP w/Adj Pressure Pad
23019 µBGA up to 40mm
23020 µBGA up to 55mm

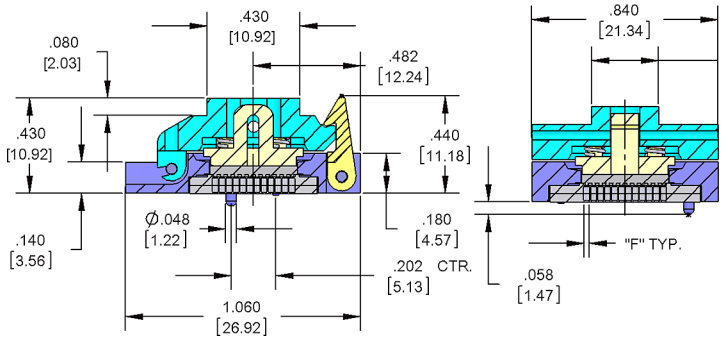
24013 RF up to 6.5mm
24008 RF up to 13mm
24009 RF up to 27mm
24009-APP w/Adj Pressure Pad
24011 RF up to 40mm
24012 RF up to 55mm

23016 CSP/BallNest™ Hybrid
24010 RF Machined Socket
23022 Kelvin Test Socket

ARIES ELECTRONICS, INC.
Bristol, PA 19007-6810 USA
TEL (215) 781-9956 • FAX (215) 781-9845
WWW.ARIESELEC.COM • INFO@ARIESELEC.COM

CSP/MicroBGA Test & Burn-In Socket for Devices up to 13mm Square



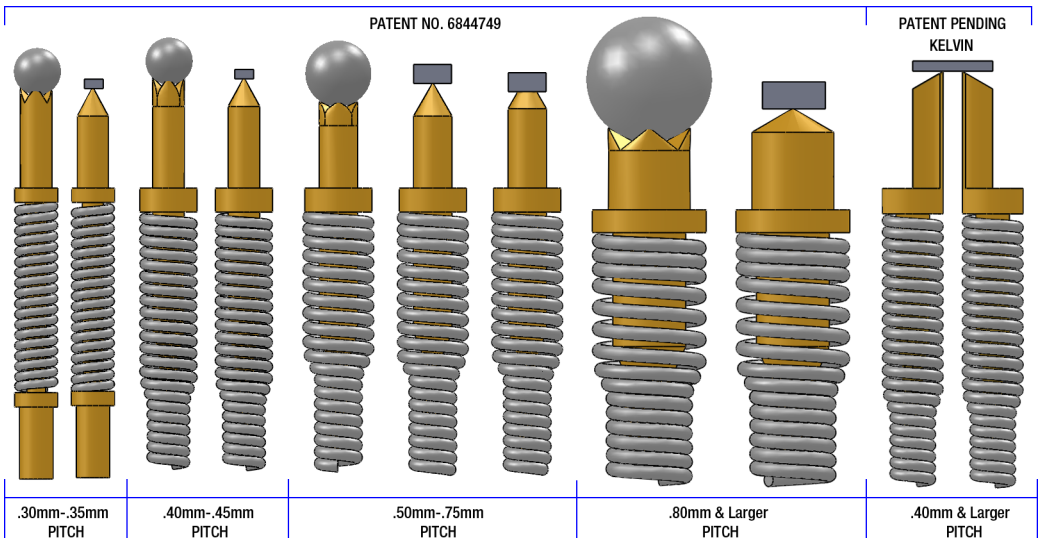


"A" & "B" =NUMBER OF ROWS IN ARRAY-1
"C" =PITCH
"D" & "E" = (NUMBER OF ROWS IN ARRAY-1) x PITCH
"F" =SPRING CONTACT OUTSIDE DIAMETER
"G" =PCB PAD DIAMETER
"H" =NUMBER OF CONTACTS/PADS

ALL DIMENSIONS: INCHES [MILLIMETERS]

ALL TOLERANCES: ±0.005 [0.13] UNLESS OTHERWISE SPECIFIED

CONSULT FACTORY FOR OTHER SIZES AND CONFIGURATIONS



SPRING PROBES

ARIES ELECTRONICS, INC.
Bristol, PA 19007-6810 USA
TEL (215) 781-9956 • FAX (215) 781-9845
WWW.ARIESELEC.COM • INFO@ARIESELEC.COM