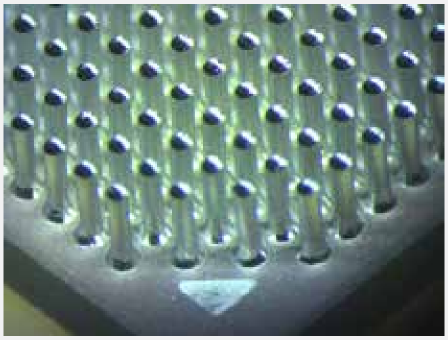
micross
one source. one solution.®

CGA Column Attach

Service Overview

Micross provides a variety of Column Attach Services following identical processes, materials and workmanship standards as customers have been accustomed to historically from IBM.



MICROSS CGA ADVANTAGES

- 2.21mm Column Provides Superior Reliability, Mitigating Mechanical Fragility and Other Factors
- Taller Solder Columns Made of Flexible or Compliant High-Pb Solder
- Higher Reliability in Extreme Temperature and Mechanical Conditions Over BGA
- Direct Drop-In Replacement for BGAs in Most Devices up to 2500 Interconnects
- Established Licensed IBM Process
- Ability to Process Both Ceramic & Plastic LGAs and BGAs with a 1.00mm or 1.27mm Pitch
- 0.5mm Diameter, 2.21mm Tall Standard Column Dimensions
- Coplanarity Typically 150 Micron or Better
- Solder Deguilding
- Mitigation of Gold Embrittlement to J-STD-001 Max Thickness of 25 Micron

DEPLOYING CGA TECHNOLOGY

CGA is an enabling interconnect technology for high reliability applications, providing superior performance over BGA in thermal cycling by utilizing column interconnects to mitigate thermal stresses, where these stresses could shear standard BGA interconnects.

Micross Components is a global leader with more than 45 years of experience in providing component modification services, offering column grid array (CGA) interconnect technology. Based on the IBM Column Last Attach Solder Process (CLASP), Micross offers CGA column attach for LGA and BGA ceramic substrates with up to 2500 I/O count. To mitigate gold embrittlement in solder joints, Micross uses a de-guilding process to ensure solder joint reliability in extreme hi-rel environments.

With QML-certified facilities in Europe and the United States, Micross can support your most demanding requirements to the highest possible standards of quality for both military and aerospace applications. Micross will convert the LGA footprint of your supplied devices to CGA using our DLA approved process.

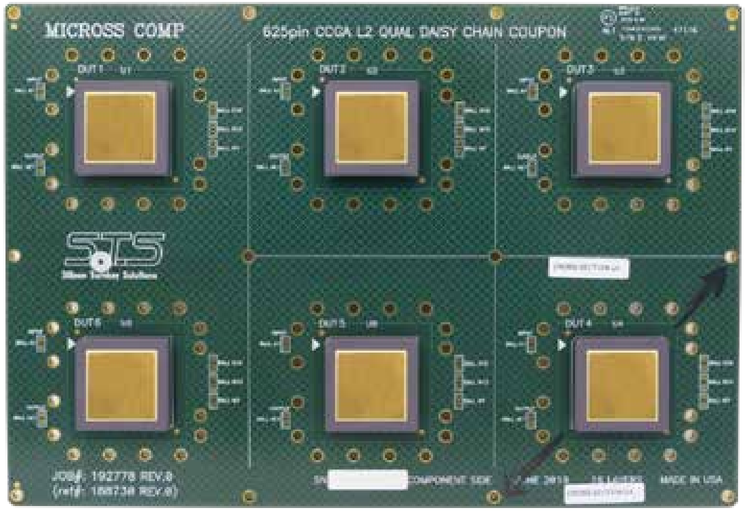
MICROSS CGA SERVICES INCLUDE...

- 10/90 Sn/Pb Columns with Precision Coplanarity and Pitch (Alternate Column Structures Available)
- Post Column Attach Electrical Test (-55°C to 125°C)
- Proprietary Application Specific Burn-In (ACBI™)
- Complete Turnkey Solution (Column Attach & Test)

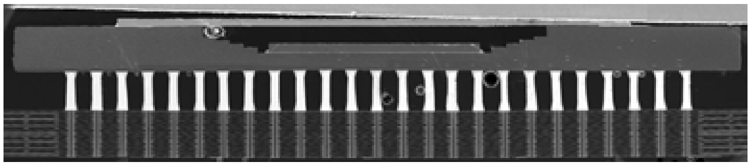
Full Compliance & Industry Certifications
Aerospace & Defense

- AS9100/ ISO 9001
- ITAR-Registered
- DLA Certified
- DMEA Trusted Source
- MIL-PRF-38535, Class Q & V Level Assembly & Test
- MIL-PRF-38535, Class Q / V CGA / Column Attach
- MIL-PRF-38534, Class H
- MIL-STD-883, Laboratory Suitability
- MIL-STD-883, Hi-Rel Micro Laboratory
- MIL-STD-202, Laboratory Suitability
- MIL-STD-750, Laboratory Suitability
- AS6081: A1, A3, A4, A5, A6, FSC 5962
  Limited Electrical Test per QTSL-5961 / 5962 3.1.3
- Nadcap AC7120
- ANSI / ESD-S20.20
- AS9100D BS EN ISO 9001:2015*
- QML Certified*
- ISO14001*
- JOSCAR Registered*
- HM Government - Cyber Essentials*

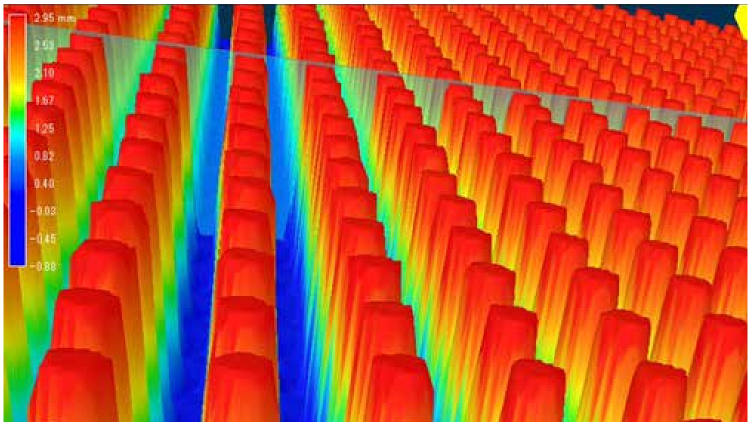
UK Only Certifications



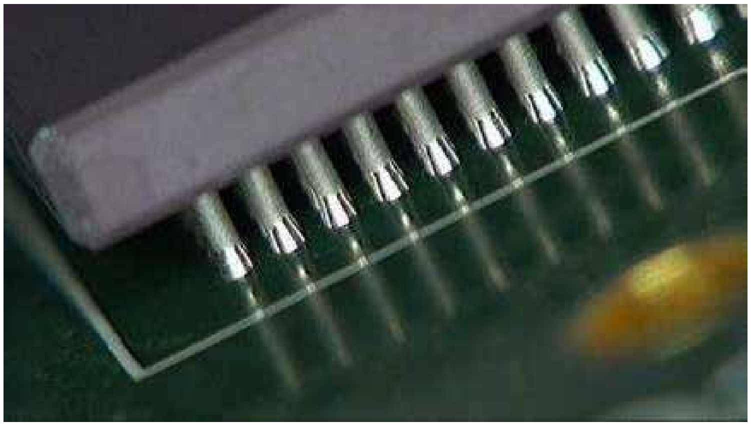
CGA Test Card



Cross-Section of CGA on Layered Test Card



Coplanarity Typically 150 Micron or Better



CGA to Test Card Interconnect with Solder Filet

About Micross

Micross is the most complete provider of advanced microelectronic services and component, die and wafer solutions. With the broadest authorized access to die & wafer suppliers, an extensive portfolio of hi-rel power, RF, optoelectronics, memory, data bus, logic, and SMD/5962 qualified products, and the most comprehensive advanced packaging, assembly, modification, upscreening, and test capabilities, Micross is uniquely positioned to provide unparalleled high-reliability solutions, from bare die, to fully packaged devices including hermetic ICs/MCMs, PEMs, ASICs, FPGAs, and PCBs, to complete program life-cycle sustainment. For more than 45 years, Micross has been a trusted source for the aerospace, defense, space, medical, energy, communications, and industrial markets.

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one source. one solution.®

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