

CGA Column Attach

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.

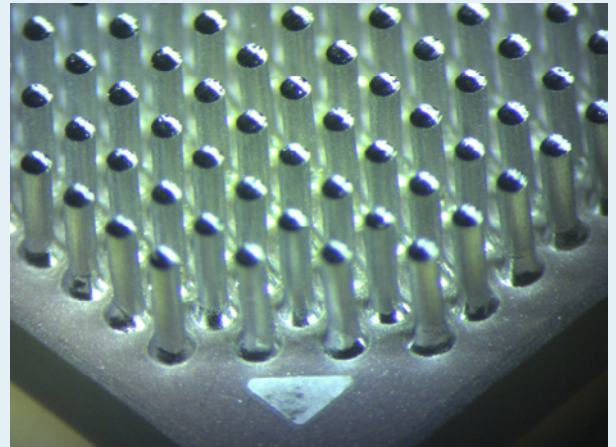
Micross Components, a global leader with 40+ years' experience in providing advanced microelectronic services and component, die & wafer solutions is pleased to offer column grid array (CGA) interconnect technology. Based on the IBM Column Last Attach Solder Process (CLASP), Micross offers CGA column 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-gulding 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)

Micross has the most complete CGA solution to meet the most stringent requirements.



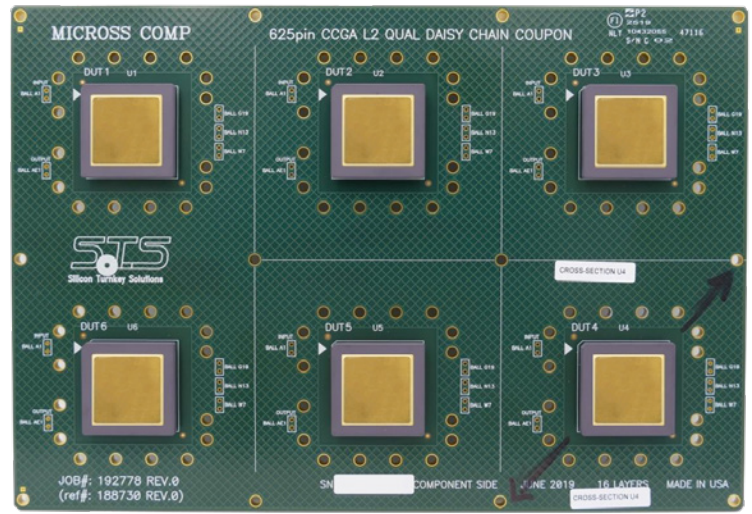
Micross CGA Advantages

- The Micross 2.21mm column provides superior reliability while mitigating mechanical fragility and other factors
- CGA Packaging with taller solder columns made of flexible or compliant high-Pb solder enable 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 degulding providing mitigation of gold embrittlement to J-STD-001 max thickness of 25µm
- Low cost, quick turn service

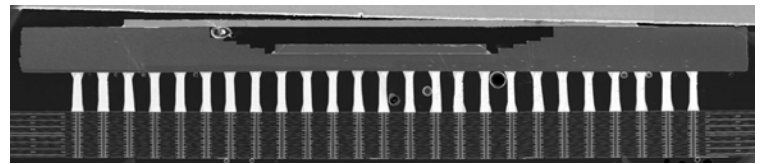
Full Compliance & Industry Certifications - Defense & Aerospace

- 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*

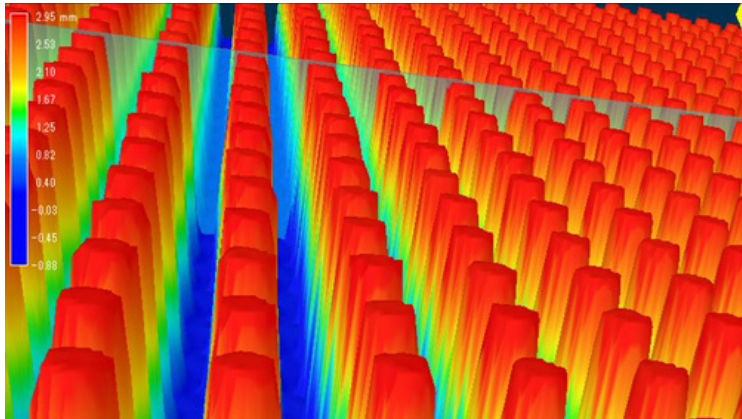
* UK only certifications



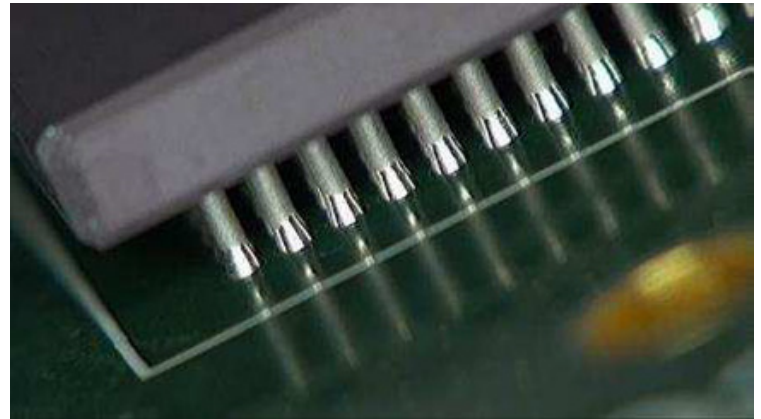
CGA Test Card



Cross-Section of CGA on Layered Test Card



Mitigate thermal mismatch for Hi-Rel extreme environments



CGA to test card interconnect with solder fillet

About Micross

Micross... The Most Complete Provider of Advanced Microelectronic Services, and Component, Die & Wafer Solutions. With the broadest authorized access to die & wafer suppliers, and the most comprehensive advanced packaging, assembly, modification and test capabilities, Micross is uniquely positioned to provide unparalleled high-reliability solutions from bare die, to fully packaged devices, to complete program lifecycle sustainment. For more than 40 years, Micross has been a trusted source for the aerospace, defense, space, medical and industrial markets.



micross
one source. one solution.®

America: 1.855.426.6766
EMEA & ROW: +44 (0) 1603.788967
China: +85 21.5459.1970
India: +91 7760.990.545



company/micross-components



@microsscomps



sales@micross.com



www.micross.com/CGA