micross
one source. one solution.™

Column Grid Array - CGA
Column Attach

Deploying CGA Technology

Micross Components, a global provider of specialty electronic components with a 35 year history in providing authentic, high-reliability products, has acquired IBM's column grid array line including all equipment, intellectual property, licenses and process flows.

The line has been installed and commissioned into Micross Specialist Electromechanical Factory in Crewe, England from where global requirements will be supported. This will give Micross the ability to add columns to LGA and BGA ceramic substrates with up to 2500 I/O count, using the IBM Column Last Attach Solder Process (CLASP) technology.

One of the key market drivers for the investment is to provide column attach for space programs requiring high pin count devices. Access to such capability in Europe and indeed globally, is extremely limited. Additionally, this recommissioning of the IBM line will provide the European market with an ITAR free solution for CGA devices.

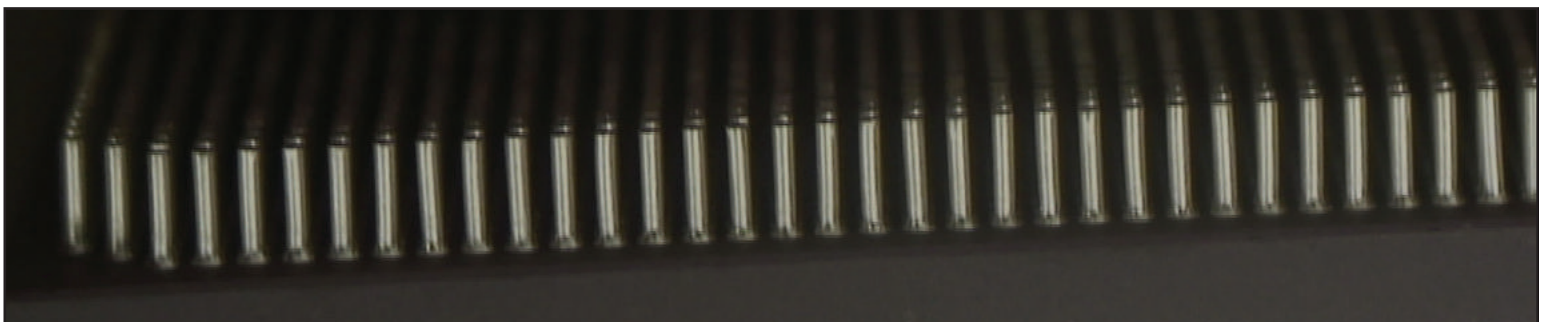
In support of the Micross CLASP manufacturing process, component test and thermal characterization is supplied by Silicon Turnkey Solutions (STS) a Micross Company. STS provides a highly technical development team dedicated to the turnkey design, assembly, test and characterization of complex components used in the Space, Aerospace and Military markets. STS provides a full turnkey service drawing on 40 years' experience working to the highest possible standards of quality in both Military and Aerospace applications.

Solutions

- Automated IBM Licensed Process; Guarantees No Re-Work
- 10/90 Sn/Pb Columns
- Column Attach w/ Palladium Paste
- Precision Coplanarity & Pitch
- Post Column Attach Electrical Test (-55°C to +125°C)
- Application Specific Burn-In
- Complete Turnkey Solution (Column Attach & Test)

Full Compliance & Industry Certifications | Defense & Aerospace

- AS9100
- ISO 9001:2008
- ISO 13485
- DLA Certified
- ITAR Compliant
- MIL-PRF-38535 QML Level Q and V Compliant
- NADCAP Registered
- DMEA Trusted Source
- RoHS Compliant
- IPC-A-610, Class II & III Certified



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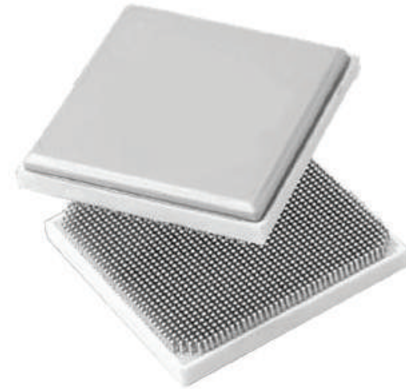
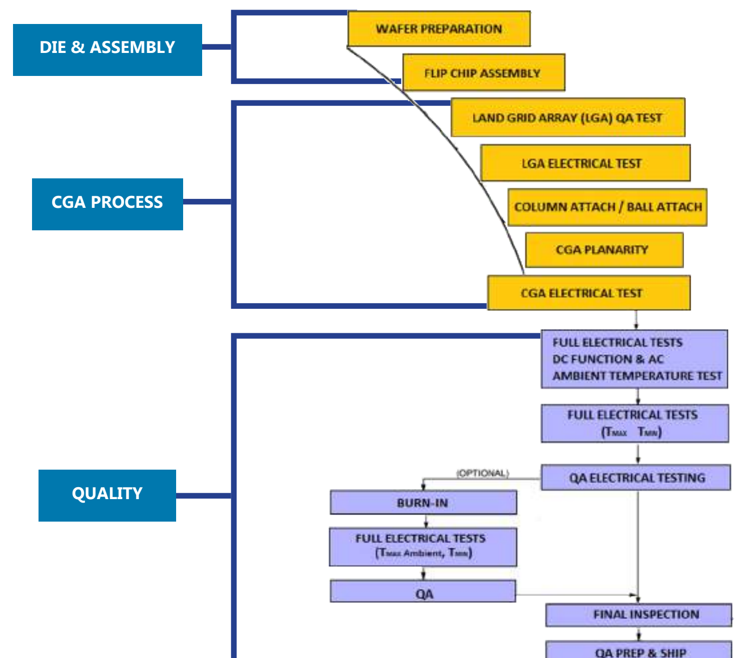
Advantages of CGA

- Conversion of LGA + LCC devices to CGA for use in Hi-Rel Applications
- Longer life span as compared to a BGA component
- The Micross 2.21mm column has the advantage of superior reliability while mitigating other drawbacks such as mechanical fragility
- The process is capable of delivering a CGA with 2500+ Columns
- Established licensed IBM Process
- Ability to process both ceramic and plastic LGA's
- 1.00mm and 1.27mm pitch
- 0.5mm diameter column
- 2.21mm high
- Coplanarity typically 150 micron or better
- Solder de-guilding providing mitigation of gold embrittlement to J-STD-001 max thickness of 25µm.
- Improved rework capability for column resetting
- Low cost quick turn service.
- Higher reliability in extreme temperature and mechanical conditions due to CGA packaging using taller solder columns that are often made of more flexible or compliant low-tin solder, rather than solder balls

Micross has the most complete CGA solution for providing products that meet customer's most stringent standards.



Full Turnkey Process



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