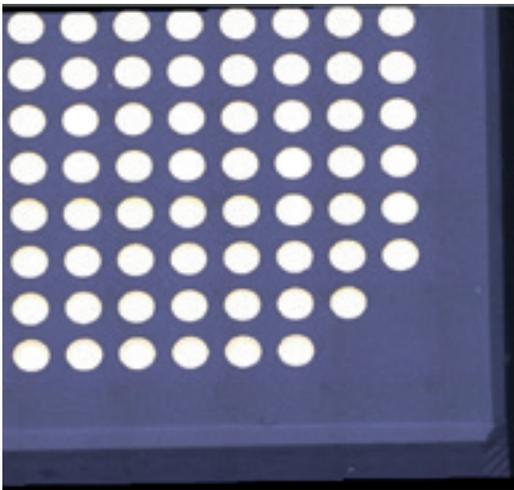


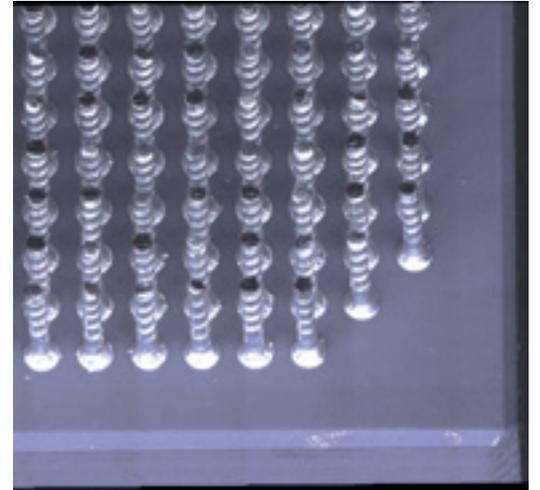
COLUMN ATTACHMENT SERVICES



In 2012, HCM.SYSTREL (SERMA Group) has been awarded a contract from ESA to develop a european column attachment process in its facility in La Rochelle (France). This process, currently available, includes the in house operations of columns manufacturing, lands de-golding and tinning, column soldering on substrate, quality control and coplanarity measurement (using contactless metrology microscope). This process is also available for reworking columned packages.

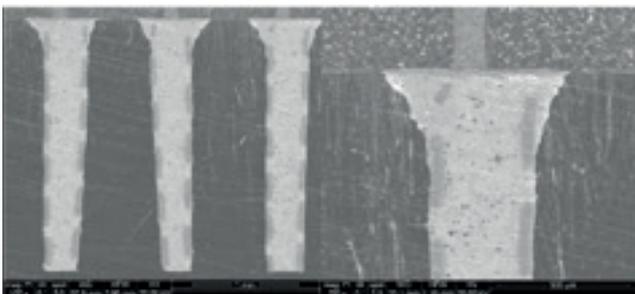


From land grid array ...

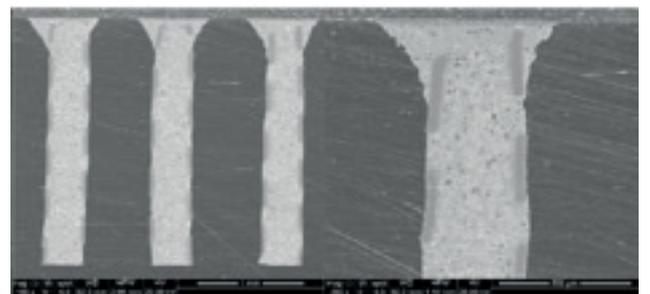


... to column grid array

PROCESS RELIABILITY



After 100 thermal cycles
+ 100 thermal shocks



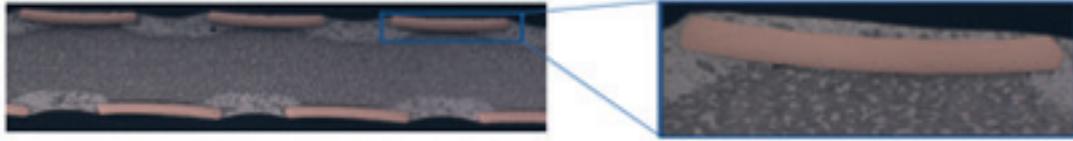
After 2000 hours of
endurance test at +125°C

COLUMNS TECHNOLOGY

Copper ribbon wrapping on high-lead PbSn wire



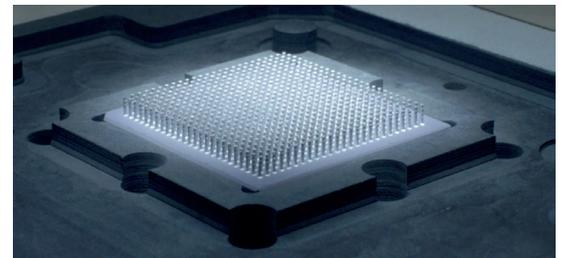
Eutetic SnPb Tinning



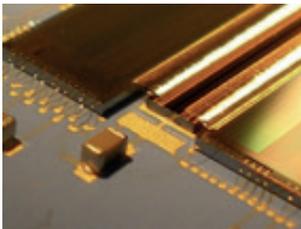
Column cutting

CHARACTERISTICS

- ▶ Package pin count: up to 1752
- ▶ Package Lands Diameter: 0.68 and 0.86mm
- ▶ Package Body Size: up to 45x45mm
- ▶ Packages Pitches: 0.80 – 1.00 – 1.27mm
- ▶ Coplanarity < 150µm
- ▶ Columns Pull-test vs MIL-STD-883 Method 2038: >320gr



HCM.SYSTREL AT A GLANCE



HCM.SYSTREL (SERMA Group) produces high reliability components such as SCM, MCM & custom hermetic packages, according to MIL and Aerospace specifications. With over 30 years of experience and a certified quality system, we provide global back-end services (wafer sawing, dice visual inspection, assembly and test) for a wide range of devices, from bare dies and wafer to qualified components, for obsolete, re-engineered or customized ASIC components. Merging our microelectronics know-how with a last generation of surface mounted technology (SMT) line, we also address high density hybrid technologies.



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