

BGA Reballing

Tuesday, October 03, 2017

# BGA REBALLING

Many modern ICs are often only available in RoHS/Lead Free BGA packages

However, leaded solder joints are required to ensure reliability for many demanding applications

ISI offers solutions to meet customer's configuration requirements

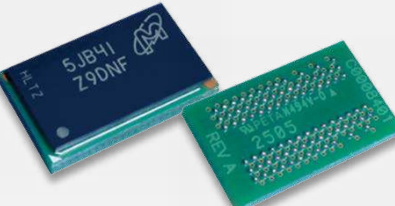
**BGA Reballing**



RoHS Lead-Free → Eutectic Tin/Lead

Covered in this presentation

**BGA Interposers**



Separate Pb & Pb-free solder joints

Contact ISI for additional information

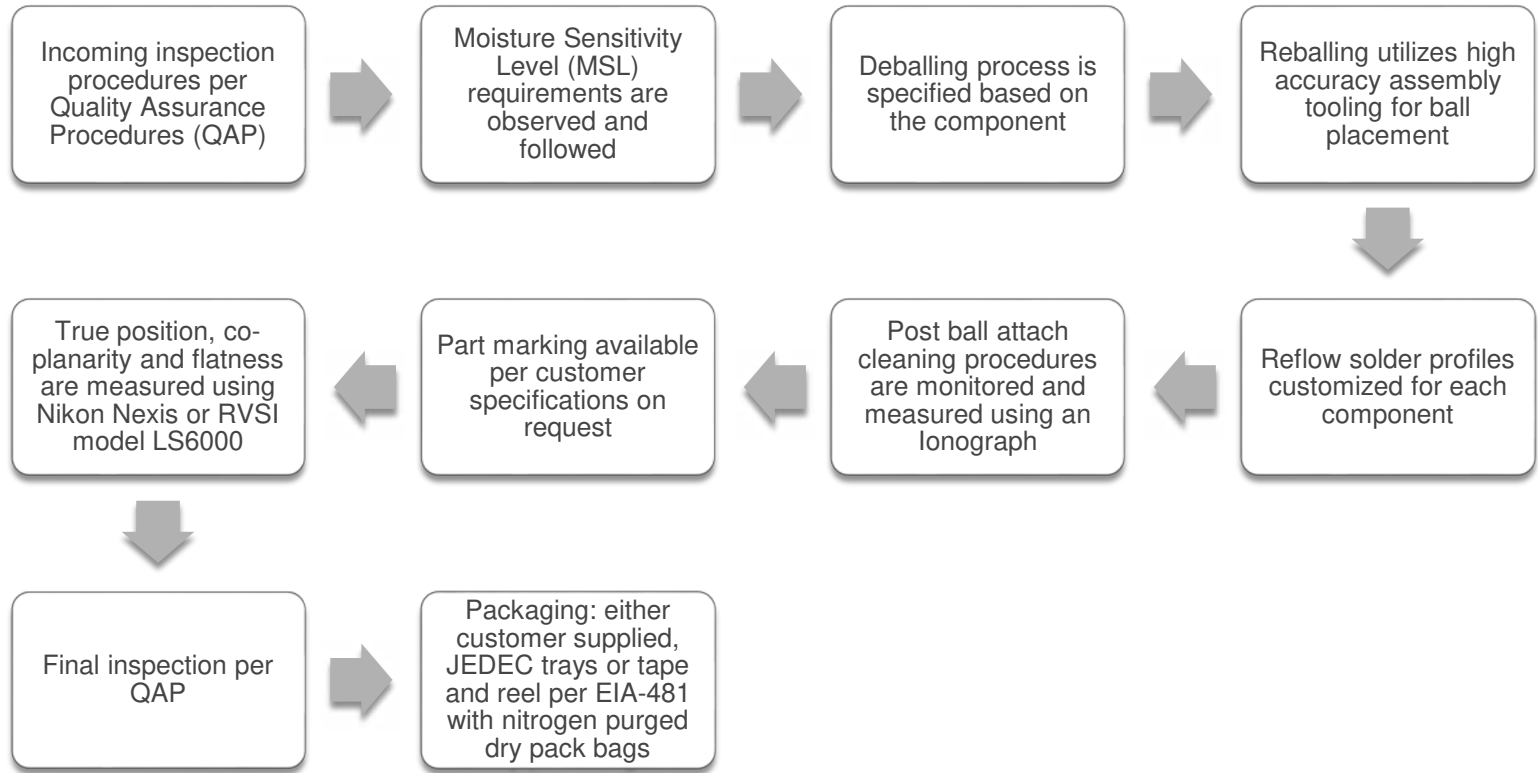


# ISI SOLUTION: REBALLING

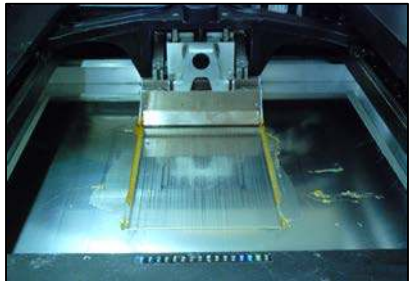
- ISI has an advanced, qualified process for removing and reballing solder spheres that is compatible to the assembly process criteria for any BGA package:
  - Tin-lead (Sn63Pb37 eutectic), Lead-free, and specialty alloys
  - Any ball size and ball pitch including Chip Scale packages
- Processes are tailored to each part. Specific control parameters are clearly defined for:
  - Detailed production process traveler
  - Controls for temperature
  - MSL / Humidity
  - ESD protection
  - Ball size/position tolerance specifications
  - Automated inspection
  - Cleanliness
  - Repackaging



# REBALLING PROCESS OVERVIEW



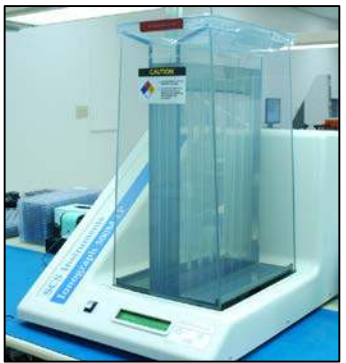
# REBALLING FACTORY TOUR



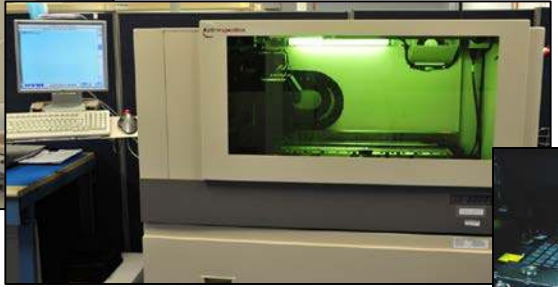
Flux Printing / Ball Attach



Conduction / Convection Oven



Ionograph Cleanliness Testing



Automated Optical Inspection

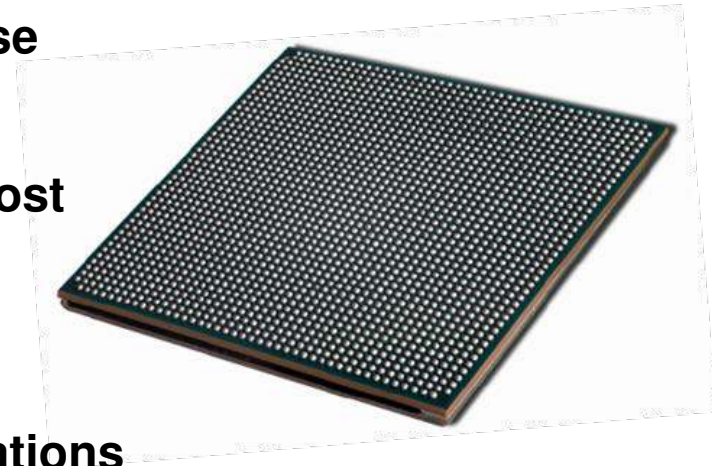
# REBALLING CERTIFICATION

## ISI's *Reballed Device Certification*



# WHY CHOOSE ISI FOR REBALLING?

- ISI has been **audited and qualified** as a **production reballing supplier** to the leading Tier 1 defense contractors
- We certify that our reballed parts meet the most stringent industry criteria
- We reball over 100,000+ BGAs each year
- We are cost-effective for high volume applications
- Any pitch, any package, any alloy
- Quick-Turn Delivery: 3-5 day expedited turn time available



# THANK YOU!

Contact ISI to engage on your next project:

Address: 741 Flynn Road / Camarillo, California 93012

Phone: (805) 482-2870

Website: [www.ISIPKG.com](http://www.ISIPKG.com)



» **Dave Gagnon**

*Western USA*

Office: (714) 993-9618

Cell: (714) 261-3733

Email: [dave.gagnon@molex.com](mailto:dave.gagnon@molex.com)



» **Bob Garon**

*Midwest USA*

Cell: (630) 707-0991

Email: [bob.garon@molex.com](mailto:bob.garon@molex.com)



» **Brian Witzen**

*Eastern USA*

Cell: (919) 633-0798

Email: [brian.witzen@molex.com](mailto:brian.witzen@molex.com)

