



SOLUTIONS TODAY, RELIABILITY TOMORROW

Guide to Our Services

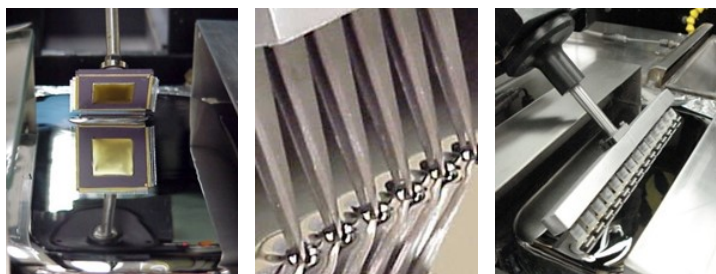
ROBOTIC HOT SOLDER DIP (RHSD)

GEAI-STD-0006 & Nadcap AC7120/11

Tin Whisker Elimination – per automated process removes 100% of the pure tin and replaces it with SnPb (tin-lead)

Gold Embrittlement Elimination – Removes gold and replaces it with SnPb. Typically required to replace the gold beyond the effective seating plane.

RoHS Compliance – Removes the SnPb and replaces it with SAC305 (tin silver copper) or any other specified alloy

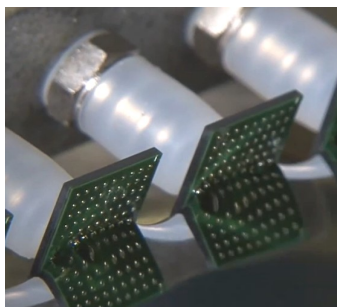


BGA REBALLING

IEC TS 62647-4

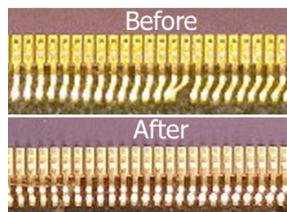
BGA Reballing for Conversion to Tin-Lead or RoHS-Compliance – flushes all balls and alloy residue on the pads and replaces with balls of Sn63Pb37, SAC305, or any other specified alloy

- ▶ Conversion to Tin-Lead
- ▶ Conversion to RoHS Compliance
- ▶ Ball Attach to Leadless Packages
- ▶ LGA Gold Removal and Ball Attach



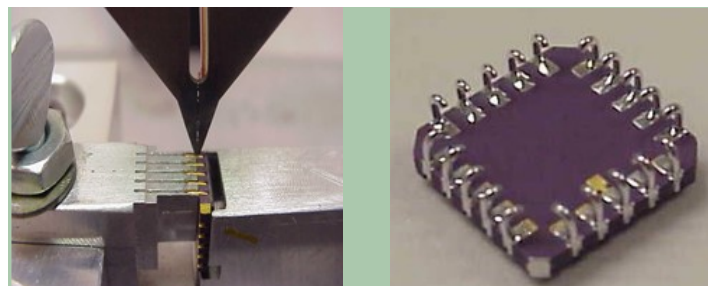
LEAD PREPARATION

Trim and Form – Forms and trims straight leads for surface mount placement per the customer's drawing or a drawing proposed by Corfin Industries. An RHSD process typically follows this process to coat leads and prevent oxidation



Reconditioning of Bent Leads – Robotic process realigns leads that are bent and scans to verify results

Lead-Attach to Leadless Chip Carriers – Reduce solder joint stress through attachment of J-shape



and L-shape leads to LCC's using thermocompression bonding

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PCB ASSEMBLY

Service type:

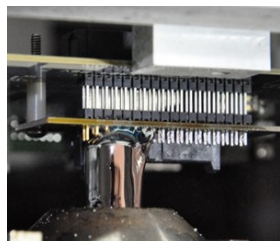
- ▶ Labor Only (kitted) or Turn Key

Capabilities:

- ▶ Machine placement of:
 - Fine pitch SMT and BGA components
 - Package on Package (PoP)
- ▶ Component pitch as small as 0.4mm
- ▶ Certified IPC-A-610 trainer

Equipment highlights:

- ▶ 9 Zone Reflow Oven
- ▶ Selective Solder System

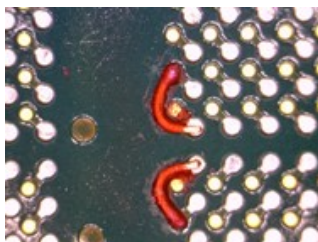


ASSEMBLY SUPPORT

Rework and Repair – Trace cuts, Wire Adds, Pad Repair, Solder mask repair

Tape and Reel – Components can be placed on Tape and Reel in the quantities desired for issue to the production floor

Kitting – Components are placed in quantities and packaging that are process-friendly. Kitting is usually in conjunction with trim and form and/or RHSD services, but is also offered for hardware (nuts and bolts, etc.) Kits can be inventoried at Corfin Industries and partial quantities shipped per schedule or request from the customer



Long Term Storage – Dry Bake and package components in sealed moisture barrier bags with desiccant, nitrogen gas, and Humidity Indicator Cards to meet GEIA-STD-0003 and JEP160 Long Term Storage of Electronic Devices

Component Harvesting – Obsolete, long lead time, and high cost components can be safely removed from PCB's using hot gas rework in accordance with IPC-7711/7721, refinished by Corfin's RHSD process, inspected, tested, and repackaged to meet all original component manufacturers' mechanical and electrical specifications

TEST

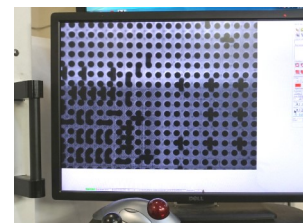
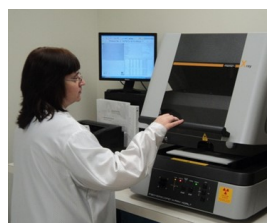
X-Ray Fluorescence Analysis (XRF) – Used to determine lead (Pb) content of termination finishes and plating thickness

Fine and Gross Leak Testing – Also referred to as Seal Test, these tests verify that the hermetic seal of a component is intact and typically follows Trim and Form and/or RHSD of a glass-sealed device

X-Ray Inspection – 2D x-Ray Analysis System, to see what traditional microscopy cannot, including obscured joints beneath BGAs, QFNs and other components

Cleanliness Testing – Determines ionic contamination on the part that can cause current leakage between leads

Solderability Testing – Verify that termination finishes will readily accept solder during assembly using J-STD-002 test or other military specification



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