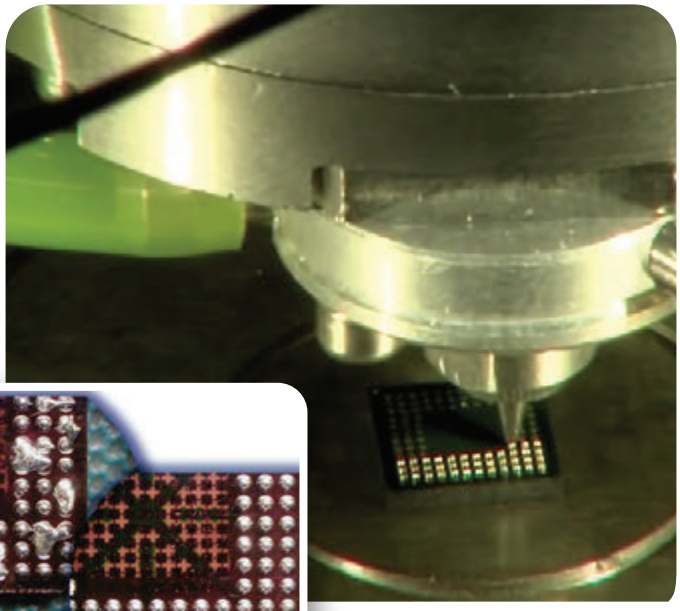
RETRONIX
CONSISTENCY | INNOVATION | QUALITY | PRECISION

IC Rescue - Safe Component Recovery

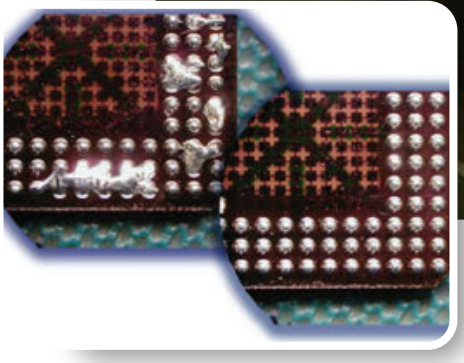
Retronix's process to safely recover high value or obsolete IC's from PCB for reuse.

Retronix have developed a process to recover and refurbish IC's including SMT & BGA, to enable them to be reused. This process meets the manufacturers specifications in terms of maximum reflow cycles allowed on an IC, and has been used extensively by both OEM's & CEM's



Key Features

- Zero Reflow cycles are used to remove and recover the IC's
- Automated processes ensures consistent results.
- Mechanical & Electrical test capability to verify IC functionality.
- Laser Reballing is carried out in a Nitrogen Atmosphere.



intel — Many BGA's (including Intel BGA's) are rated for 3 reflow cycles

freescale™ — Qualified maximum reflow temperature (Deg.C) 250 +/-5 (3 passes)

Micron — The maximum number of reflows is defined as three...product guarantees may be invalidated

Most companies do not authorise the recycling of IC's as IC manufacturers only recommend a maximum of 3 reflow cycles to be applied to an IC. Assuming one or two reflow cycles to solder the IC initially, traditional methods of IC recovery can use an additional 4 cycles : One to remove the IC, second to remove the old solder, third to reball the BGA and fourth to place it on the next PCBA. This means 6 cycles, exceeding most manufacturers recommendations.

Retronix's unique IC Rescue process uses zero reflow cycles in a repeatable process that complies with the manufacturer's specifications.

FOR MORE INFORMATION PLEASE CONTACT US:

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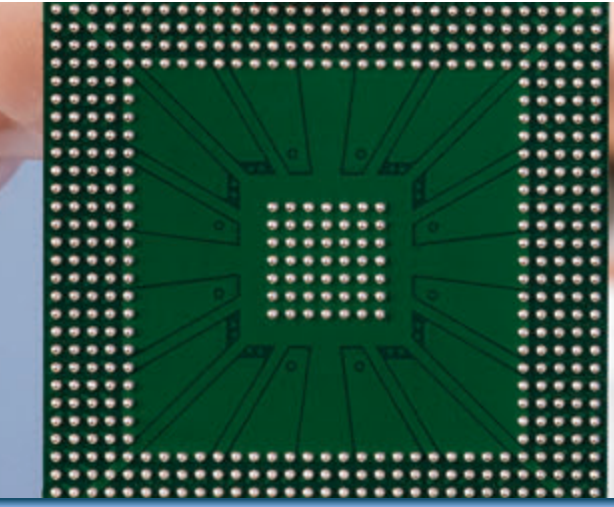

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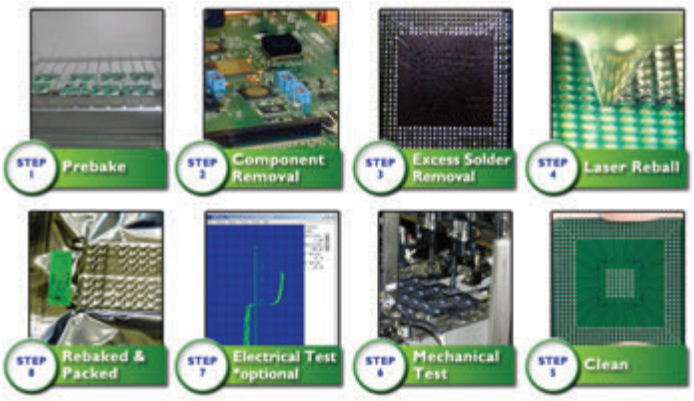
BGA - Safe Recovery Process

1) Each PCB is prebaked to JEDEC Standards
2) BGAs are removed using bottom heat only, this avoids reflowing the BGA body.
3) Solder is removed in a controlled hot air process. No Abrasion.
4) BGA is Laser Reballed
5) Components are cleaned in an automated process.

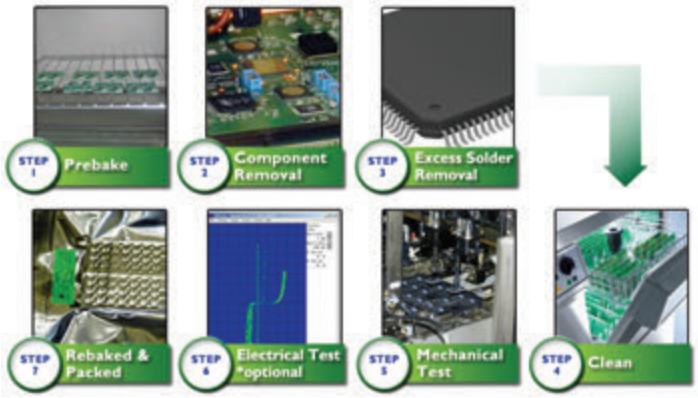
Then Mechanically tested, baked, vacuum, sealed and packed



QFP - Safe Recovery Process

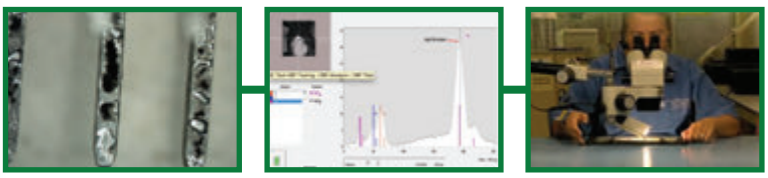
1) Each PCB is prebaked to JEDEC Standards
2) QFP's are removed using bottom heat only, this avoids reflowing the QFP body.
3)Excess solder is drained from the legs of the QFP.
4) QFP is mechanically checked for coplanarity etc. in the vision system.
5) Components are cleaned in an automated process.

Then tested, baked, vacuum, sealed and packed



IC Tests

Retronix offer a variety of component tests to authenticate and verify the ICs:
Visual Inspection | XRF Test
Solderability Test | Electrical Test
Key Functional Test | Memory Programming
Decapsulation Test



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