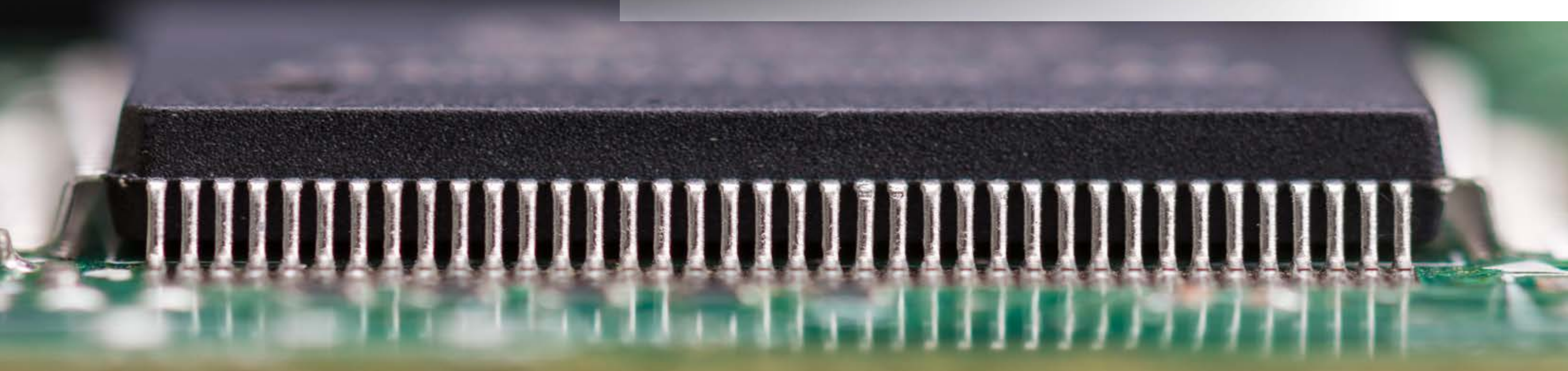
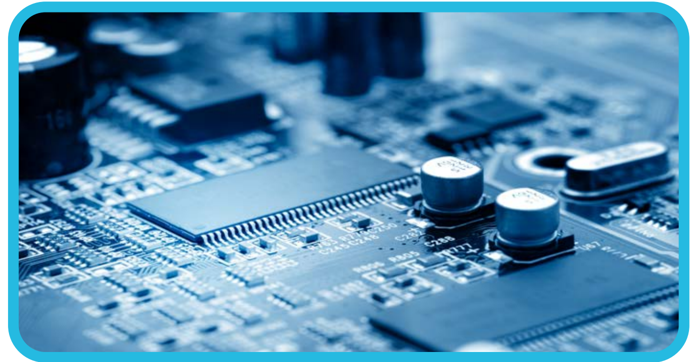



# OBSOLESCENCE SOLUTIONS

**Retronix's process safely recovers high value or obsolete IC's from PCB's for reuse.**

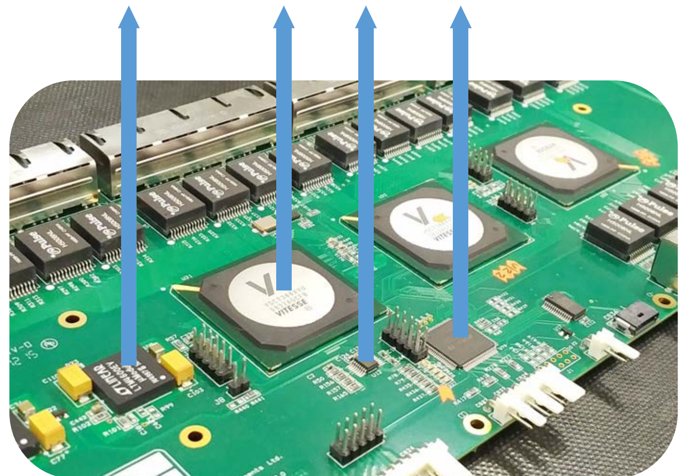
Retronix have developed a process to recover and refurbish IC's including SMT & BGA, to enable them to be reused. This process meets the manufacturers specifications in terms of maximum reflow cycles allowed on an IC, and has been used extensively by both OEM's & CEM's



## 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.

**Recover high value IC's from Obsolete, Damaged or Old Rev PCB's**



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

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

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

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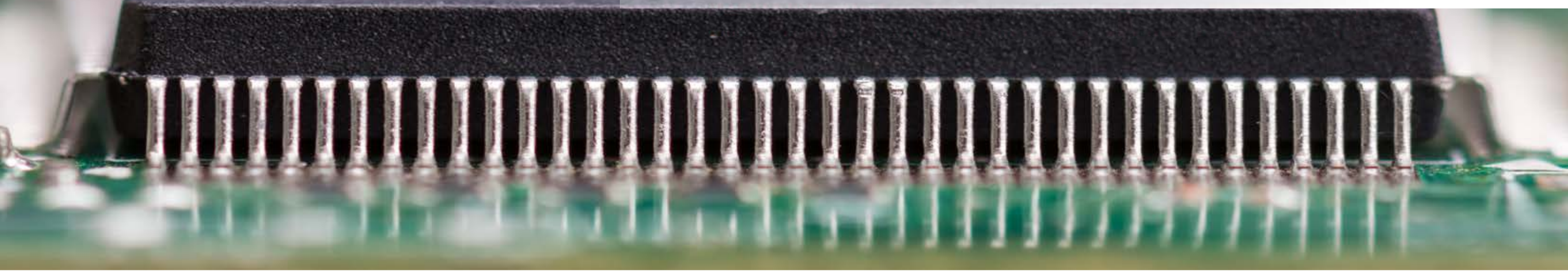
# RETRONIX



Most companies do not authorise the recovery of IC's as IC manufacturers only recommend a maximum of 3 reflow cycles. Assuming one or two reflow cycles to solder the IC initially, traditional methods of ICs 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.

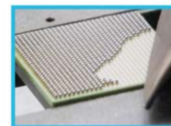
## BGA - SAFE RECOVERY PROCESS

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

Prebake

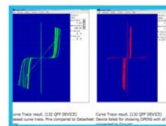
Component Removal



Excess Solder Removal

Laser Reball

Rebaked & Packed



Electrical Test *Optional

Mechanical Test

Clean

## LEADED DEVICES - SAFE RECOVERY PROCESS

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

Then tested, baked, vacuum, sealed and packed

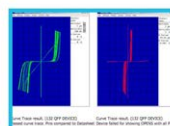
Prebake

Component Removal

Excess Solder Removal

Re-Tinned

Rebaked & Packed



Electrical Test *Optional

Mechanical Test

Clean

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