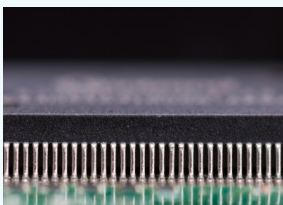


ROBOTIC HOT SOLDER DIP

The Retronix Robotic Hot Solder Dip process has several applications including, converting alloy on devices, refreshing oxidised alloy, tin whisker mitigation, and double-dip tinning for solder joints operating in harsh environments. The re-tinning or refreshing of heavily oxidised contacts is of particular interest in the case of high-priced or obsolete components that are heavily oxidised as a result of overlayering.

The Retronix process can be carried out both manually and fully automatically according to GEIA-STD-0006. The proof of successful processing is confirmed by our in-house testing suite. Our top-of-the-line service is the go-to choice for global High Reliability organisations.

AUTOMATED ALLOY CONVERSION



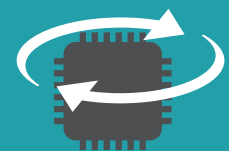
- ✓ Convert from Pb to Pb Free
- ✓ Convert from Pb Free to Pb
- ✓ Combination of Alloys - SAC, Ag, Tin

The Retronix fully automated system ensures that devices aren't exposed to excessive heat or abrasion, meeting the stringent High Reliability standards of GEIA-STD-0006. Retronix is one of the few companies in the world that offer a full bill of material (BOM) conversion process.

TECHNOLOGY SOLUTIONS



TIN WHISKER MITIGATION



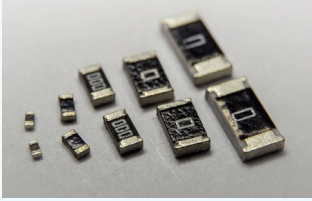
ALLOY CONVERSION



ALLOY REFRESH

MICRO DEVICE HOT SOLDER DIP

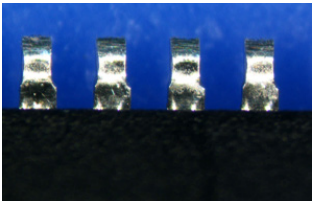
- ✓ Patent Pending
- ✓ Combination of Alloys - SAC, AG, Tin
- ✓ Meets GEIA-STD



With the automated process designed exclusively by Retronix (Patent Pending) to tin micro components such as 0402s, 0603s & SOTs to GEIA STD, the industry now has a comprehensive all-inclusive solution for micro tinning requirements.

ALLOY REFRESH

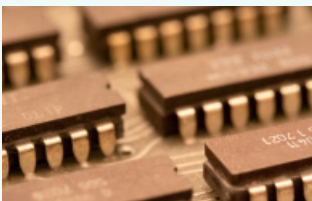
- ✓ Automated Re-Tinning
- ✓ Double Dip Tinning
- ✓ Solderability Checks



More often than not, failure to solder a component onto a PCB is a result of oxidation caused by improper storage & handling. Retronix can help by undertaking a sample solderability test to determine if your parts are useable if not, we can refresh the alloy and return your components to a 'good as new' condition.

GOLD EMBRITTLEMENT

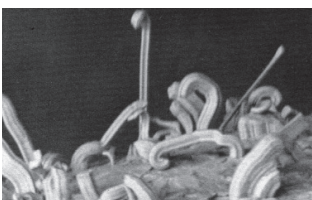
- ✓ De-Gold Devices
- ✓ Meets GEIA-STD
- ✓ Solderability Checks



Many factors play a part in the risk of Gold Embrittlement, including gold thickness, solder type, solder quantity, ramp rate, dwell times, and gold layer condition. The Retronix solution is to remove the gold from the termination using our in-house alloy conversion process.

TIN WHISKER MITIGATION

- ✓ Convert to Pb
- ✓ Automated Process
- ✓ Defence & Space Applications



It's well documented that introducing lead to assemblies mitigates the growth of tin whiskers. Our solution is to convert the pure tin alloy on the termination to one with lead content, using a unique process that meets the stringent standards of the High Reliability industry.

Source - nepp.nasa.gov