

# Pb-FREE TERMINAL FINISH CONVERSION



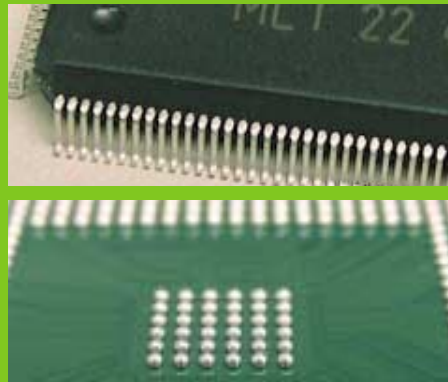
Providing Second Level Inter-Connect SnPb  
Finish Conversion compliant with RoHS

Finish conversion available for...

- Obsolete stock
- Last time buys
- Legacy products
- On site XRF (X-Ray Fluorescence) testing and verification available conforming to RoHS WEE and ELV
- XRF analysis of multi-layer electronic components and general materials testing



Component prepared for Pb-Free or Eutectic Finish



Terminal Finish Conversion



XRF Equipment



**tru-form**

attrition management  
& component enhancement

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## Tape and Reeling



Tru-form has successfully changed the terminal finish on BGA and QFP components in line with RoHS directive. 2002/95/EC as defined by the Jedec Standards JESD97.

## ADDITIONAL SERVICES INCLUDE...

- Component programming
- Tape and Reeling
- Dry Packing
- Baking
- Specialist PCB Rework and Repair
- BGA Reballing
- QFP Lead Alignment



Component Baking



Vacuum Seal

### Technical detail

The company policy is to automate processes wherever possible, this strategy enables a high level of consistency and repeatability on all processes.

### Environment

Quality System operating within ISO 9001:2000.

Full ESD environment CEI IEC 61340-5-1  
Humidity and Temperature monitoring.

### RoHS Compliance

Component samples which have passed through this process were scanned using x-ray fluorescence (XRF).

XRF is the acknowledged non-destructive method for ROHS screening for the presence of lead above 1,000ppm. The outcome was for traces to be measured below 0.1%

### BGA Reballing

BGA components reballled using eutectic and non collapsible spheres. Various lead-free spheres available.

### Lead Alignment

QFP, SOIC component leads realigned using fully automated computer controlled equipment.

Reworked and packaged to quality standards suitable for machine placement.

### Tape and Reeling

Product taped to EIA 418 standard. Peel strength test completed on all batches.

Capability to reel all package styles in volume and as component attrition. Special custom design service available.

### Dry Packing

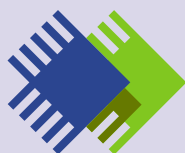
ESD Bag.  
Humidity indicator card 4 Spot.  
Desiccant included in all MSL dry packing. Customised labelling available.

### Baking Considerations

Components are baked at 125 deg C for 24 hours.

### Quality

ISO Certified,  
Full ESD Protected Environment.  
Fully Traceable documentation.  
Integrated production control system.



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