

PerFix™

Ultra PerFix™

Automated Optical Repair (AOR) System



Ultra PerFix™

Ultra PerFix™ is a fully Automated Optical Repair (AOR) solution enabling high quality repair of shorts in fine-line and IC substrate production. For the first time ever, substrates that in the past would have been scrapped, are now automatically repaired and saved.

Scrapped Panel Reduction

Manual repair of shorts is impossible with fine-line IC substrate products. Orbotech's Ultra PerFix automatically repairs shorts in fine-line PCBs down to 10µm lines. Ultra PerFix significantly helps manufacturers save costs by lowering the number of scrapped substrates.

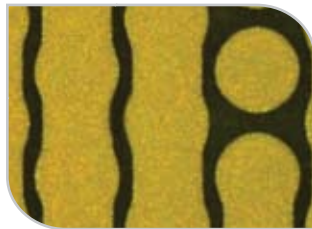
The Only Way to Repair

Repair of Shorts in FC-BGA and CSP Substrates

Ultra PerFix™, is the only way to repair excess copper defects, with no damage to adjacent conductors or substrate laminates defects.



Before repair



After Ultra PerFix repair



Before repair

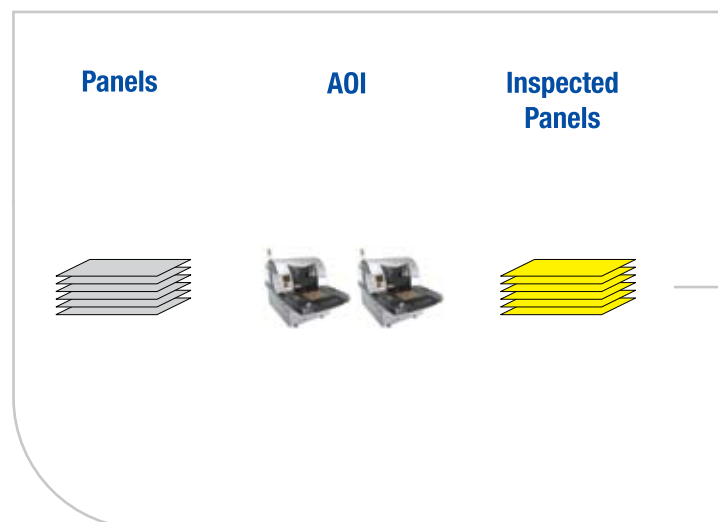


After Ultra PerFix repair

Benefits

- Accurate repair - down to 10 µm line production
- Reliable repair - minimal damage to laminates
- Repeatable repair - best quality at all times

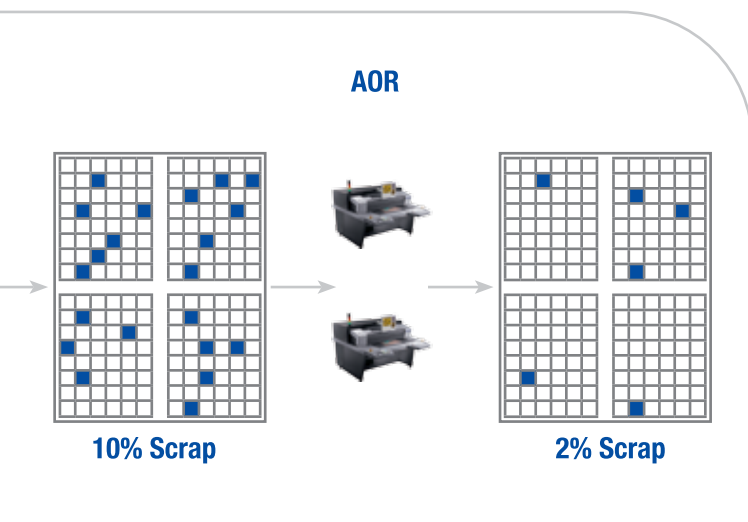
AOI Room Workflow



Introduction of Orbotech's innovative Ultra PerFix AOR yields and bottom line results by saving IC Substrates

Closed Loop Repair (CLR) Technology™

Orbotech's unique, patent-pending CLR Technology uniquely leverages an automatic, closed-loop iterative methodology of image acquisition, processing and ablation, running sequentially, until perfect ablation of shorts is achieved.



solution in IC substrate production, increases manufacturers' with short defects that otherwise have to be scrapped.

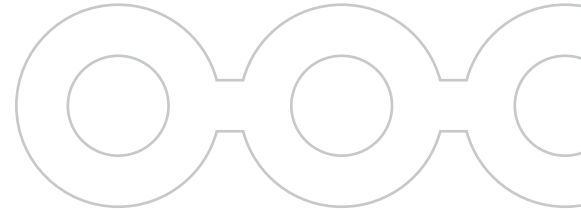


Image Acquisition

- Ultra PerFix delivers sharp and clear-cut distinctions, differentiating between copper and laminate
- Accurate identification of required ablation areas

Image Processing

- Orbotech field-proven SIP Technology™
- Elimination of human errors
- Accurate control of ablation progress

Laser Ablation

- Full control of laser energy and spot size
- High ablation accuracy - no damage to conductors
- Minimal penetration to laminates

