



PERFIX™ 200S / 200S XL

Automated Optical Shaping (AOS) System



PERFIX™ 200S / 200S XL

Make it Perfect.

PerFix™ 200S / 200S XL, Orbotech's latest innovation in Automated Optical Shaping (AOS), perfectly shapes shorts and any excess copper defects with high precision. PerFix™ 200S / 200S XL enables top quality shaping of most advanced PCB designs, including any-layer, HDI and complex multi-layer boards. Now more than ever, PerFix™ 200S / 200S XL moves the PCB industry closer to achieving zero scrap production.

Benefits

Maximum Scrap Saving

- Perfect shaping of shorts and excess copper defects
- Resolution down to 30µm line and space
- Saves PCBs that would otherwise be scrapped

Superior Quality with CLS (Closed Loop Shaping) Technology™

- Iterative and controlled process
- Automatic comparison to the CAM data
- Minimum penetration to the laminate

Robust Performance

- Utilizes Orbotech's patented, high performance laser technologies
- Shapes more than 60 typical fine line defects per hour
- Fast and easy setup enables switching jobs easily

Connectivity

- Automatic connectivity to Orbotech's AOI and verification systems only
- Manual operation mode with other solutions



Before shaping



After shaping - White light image



After shaping - UV light image



Maximum Scrap Saving

Saving PCBs that otherwise would have to be scrapped, PerFix™ 200S / 200S XL significantly increase PCB production yield on even the most complex any layer, HDI and advanced MLB jobs. Utilizing state-of-the-art technologies, the system shapes any type of short or excess copper defects including those on multiple lines, SMT areas, corners and pads, without damaging the shaped area.

Thoroughly tested to meet the highest industry standards, PerFix™ 200S / 200S XL performs perfect shapings just as if there were never a defect originally. The system's results meet strict manufacturing specifications such as electrical characteristics, durability to time and stress and visual requirements.

Superior Quality with CLS Technology™

PerFix™ 200S / 200S XL's CLS (Closed-Loop Shaping) Technology is the key to outstanding accuracy and speed. Orbotech's proven image acquisition captures precise images of the defect area. A set of specialized image analysis algorithms compares the images to the CAM data in real-time, automatically finds the copper to be removed then guides the system's laser as it accurately ablates excess copper.

The full, 3-step cycle of image acquisition, image analysis and laser ablation is repeated until the shaping is perfect, with no damage to conductors and minimum penetration to the laminate.

Robust Performance

PerFix™ 200S / 200S XL is utilizing advanced laser system design, which emits high-frequency pulses combined with patented, ultra-fast moving mirrors for optimal control. An innovative optical mechanism maximizes laser intensity and accuracy to ensure superior laser performance on a variety of materials.

Connectivity

PerFix™ 200S / 200S XL becomes the shaping center for all excess copper defects detected along the HDI & MLB production line. In mass production mode, defect coordinates are automatically received from Orbotech AOI or verification stations for maximum speed. PerFix™ 200S / 200S XL can receive coordinates from other types of equipment using manual mode.
