PHIXEL MIS - STRIP-TO-STRIP INSPECTION AFTER MOLDING

Enables early detection of production problems to prevent loss

The Strip-to-Strip Inspection after molding guarantees the quality of WIP products with fast feedback loop. When manufacturing cost and quality are a concern, the PHIXEL MIS minimizes waste and loss - enabling early detection of defects usually only discovered during the final 4th Optical inspection of finished products. With ultra-high-speed and high-precision 2D vision scans, as well as a high-precision laser for reject treatment, PHIXEL MIS helps to achieve best-in-class throughput.

Key features

Application

- Inspection of lead-frame substrate to detect package dimension, molding and plating defect

Key features

- Dual stations for 2D inspection and laser marker
- Throughput: Up to 117000 UPH (subject to package size & leadframe density)
- Support max 100 mm x 300 mm substrate LF size
- 3-4 magazines for on/off loaders
- Auto-lead frame QR code reading
- Full strip laser mark option
- Vacuum system and brush clean for package laser mark
- AOI cellular network architecture for recipe and e-Map management
- Option: real-time data feeding to MES and eSPC
- Option: auto email alert (defect/batch summary)
- SEMI standard with SECS/GEM interface
- Advanced Defect Classification (ADC)

Specifications

Imaging system

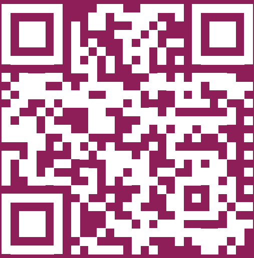
- Camera: 16K > 8K or 16K color line-scan camera
- Number of cameras: 2
- Resolution/Field of view: 3.17 to 6.3 µm / pixel, FOV 50 mm to 100 mm
- Minimum object detection: 12 to 25 µm
- Lighting: Compound lighting

Inspection categories

- Program mode: Fast programming for common reject criteria
- Reject treatment: Electronic map and auto punching
- Inspection view: Top and bottom view

Inspection items

- Moulded lead-frame defects: Chipping. Body broken. Scratch. Pin hole or void. Mold shift. Incomplete mold. Gate remain. Foreign material. Gate chipping. Rough surface. Melted Body. Blister. Body crack. Bubbles
- Lead-frame defects: Flash along lead. Cu exposure. Contamination. Bend lead or twisted lead. Mould compound leakage on lead. Burr. Missing lead. U-shape flash (mold flash under lead-frame). Indexing hole deformation. Mold flash. Lead press. Lead width. Empty (no encapsulation)



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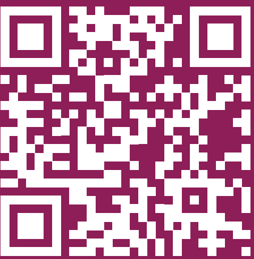

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