

## PHIXEL DWR - 3D POST-WIREBOND REEL-TO-REEL INSPECTION

### The only 3D inspection solution in the market for reel-to-reel products

Enhance your manufacturing efficiency and competitiveness with high-speed multi rows lead-frame 3D inspection, highly flexible customizable design with a simplex vision solution, and automatic high-speed laser treatment for rejects. When cost and quality of manufacturing are a concern, the 3D Post-Wirebond Reel-to-Reel Inspection guarantees the quality of die and wire bond - enabling fast feedback loop. The PHIXEL DWR minimizes waste and loss in manufacturing processes - eliminating defects usually only discovered during the electrical tests of finished products.



#### Key features

##### Application

- Inspection of lead-frame substrate to detect post-die bond and wire bond defect

##### Key features

- High-speed fully auto wire loop/profile inspection
- 3D inspection
- Laser cut option for reject handling
- Post-inspection after reject laser handling
- Throughput: up to 120k UPH (subject to package size)
- SEMI standard with SECS/GEM interface
- Sophisticated defect mode classification
- Lead frame width 17 mm to 36 mm
- 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)

#### Specifications

##### Imaging system

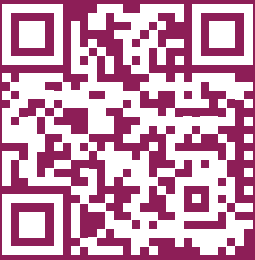
- Cameras: 5 M pixels area camera monochrome
- Number of camera(s): Max 3 (1 or 2 inspection view + 1 post laser cut)
- Resolution/Field of view: 3.7  $\mu\text{m}/\text{pixel}$ , FOV: 9 mm
- Minimum object detection: 15  $\mu\text{m}$
- Lighting: Compound lighting

##### Inspection categories

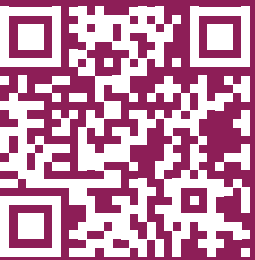
- Program mode: Fast programming for common reject criteria
- Reject treatment: Electronic map and laser
- Inspection view: Top and side view

##### Inspection items:

- Die defects: Foreign material  
Die placement: Glue on chip
- Wire defects: Ball shift. Sweep wire. Loop height. Sagging wire. Stray wire. Broken wire. Missing wire. Stitch off. Stitch offset
- Lead frame defects: Lead deformation. Lead shift. Lead lift up. Missing chip



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