



# PHIXEL MIS

## Molded package inspection strip

### Application

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

### Key Feature

- Dual stations for 2D inspection and laser marker
- Throughput: 32K to 117K UPH (subject to test / package size)
- Support max 100mm x 300mm substrate LF size
- 8K or 16K line scan camera resolution
- 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 emap 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) by deep learning



Strip-to-Strip Inspection after Plating

### Imaging System

Camera	16K line scan color
Number of camera	2
Resolution / Field of View	3.17 to 6.3µm / pixel, FOV 50mm to 100mm
Min object detection	12 to 25 µm
Lighting	White coaxial + dome light

## Inspection Categories

<b>Program Mode:</b>	Fast programming for common reject criteria	
<b>Reject treatment:</b>	Electronic map and auto punching	
<b>Inspection View:</b>	Top and bottom view	
<b>Inspection items:</b>	<b>Moulded lead-frame defects:</b> <ul style="list-style-type: none"><li>- Chipping</li><li>- Body broken</li><li>- Scratch</li><li>- Pin hole or void</li><li>- Mold shift</li><li>- Incomplete mold</li><li>- Gate remain</li><li>- Foreign material</li><li>- Gate chipping</li><li>- Rough surface</li><li>- Melted Body</li><li>- Blister</li><li>- Body Crack</li><li>- Bubbles</li></ul>	<b>Lead-frame defects:</b> <ul style="list-style-type: none"><li>- Flash along lead</li><li>- Cu exposure</li><li>- Contamination</li><li>- Bend lead or Twisted Lead</li><li>- Mould compound leakage on lead</li><li>- Burr</li><li>- Missing lead</li><li>- U shape flash (mold flash under lead-frame)</li><li>- Indexing hole deformation</li><li>- Mold flash</li><li>- Lead Press</li><li>- Lead Width</li><li>- Empty (no encapsulation)</li></ul>