



# OPTI9000

2D/3D Automated Inspection System

**OPTI9000** offers high speed, in-tray, 2D and 3D inspection. Providing both high throughput and high resolution, OptiViz's proprietary 3D laser scanning technology and 2D inspection modules are the ideal combination for speed and accuracy while balancing cost of ownership.

The unique scanner and multi-camera combination provides unprecedented flexibility in inspecting various devices types without the need for change-out kits. The multi-illumination module allows for the most subtle defects to be detected.

The OPTI9000 series system provides fully automated tray handling, stacking and sorting. The system is extendable to support both current and future inspection requirements at every process stage; all without compromising accuracy, repeatability and throughput.

**I**nspects ball/lead package types

**R**eliable shuttle tray transfer

**U**ser-friendly interface

**S**ingle-point operator access

**P**recision handling system

**A**utomatic device conversion

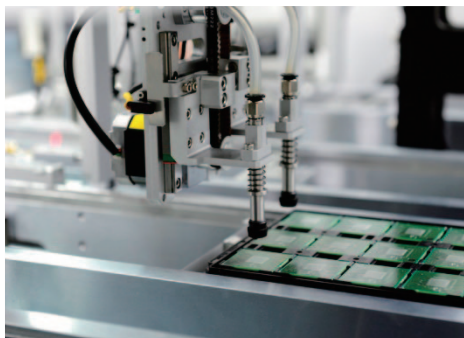
**W**indows operating system

**P**roven/simplistic handling system

**Opt i Viz**  
**Technology**  
**Inc.**

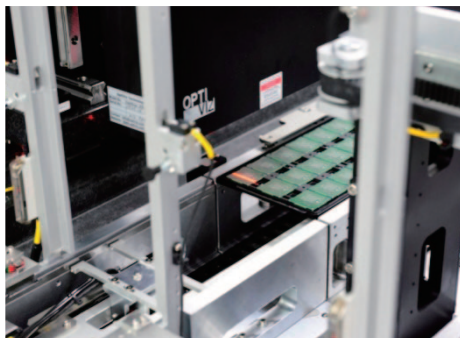
# High Performance with High Flexibility

## 3D Package Inspection System



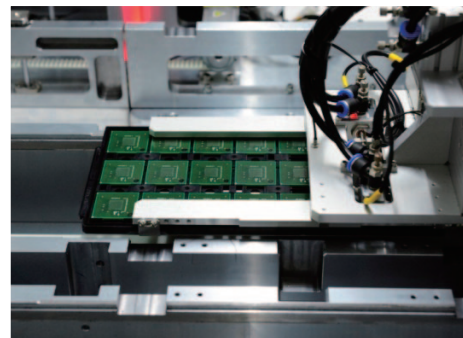
### High Speed Auto Pitch Sorting Module

The dual-head pick & place provides speed, precision and reliability ensuring the device integrity is maintained.



### High Precision Laser Scanner Module

The solid state scanner provides the best combination of precision, speed and reliability.



### Tray Handling

The tray handling system pipelines all trays simultaneously; optimizing throughput and ensuring accurate positioning.



### 3D System Configuration

3D Laser + High Precision X/Y/Z Motion Gantry

#### Device Types

-QFP, TSOP, BGA, CSP and others

#### Inspection Items

Coplanarity, Warpage, Height, Thickness, Pitch, Package X/Y .....

#### Inspection Capability

##### Standard Laser 3D

5 microns accuracy & repeatability on Z measurement

##### High Resolution Laser 3D

1 micron accuracy & repeatability on Z measurement



### 2D Module Configuration

High Resolution CCD + Multiple Channel Lighting

#### Inspection Items

Marking Quality / Orientation / Scratch / Particle / Void / Chip-out / ....

General 2D Dimension Measurement such as point-to-point, point-to-line, Angle, Diameter, ...

#### Option

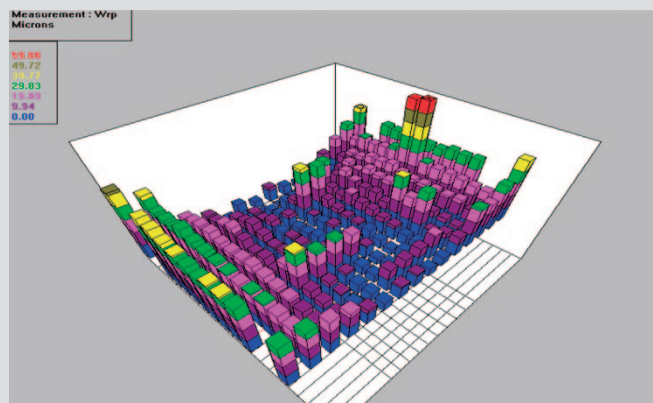
Auto Zoom / Auto Focus Capability

## SPECIFICATION SUMMARY

### CONFIGURATION

#### Base Configuration

- 3D scanner module and precision X/Y/Z gantry
- Replenish tray x1
- Binning trays x2
- PnP: 2 heads with auto pitch



## PERFORMANCE

### Lead Devices

- Coplanarity
- Pitch X/Y
- Lead Width
- Package Stand-off
- Package Warpage

### Ball Devices

- Coplanarity
- Pitch X/Y
- Ball Width
- Package Stand-off
- Package Warpage

### Bump Devices

- Coplanarity
- Pitch X/Y
- Bump Width
- Bump Height
- Warpage



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