TAKAOKA TOKO Introduction

- **A leading company of applied optics inspection system -**
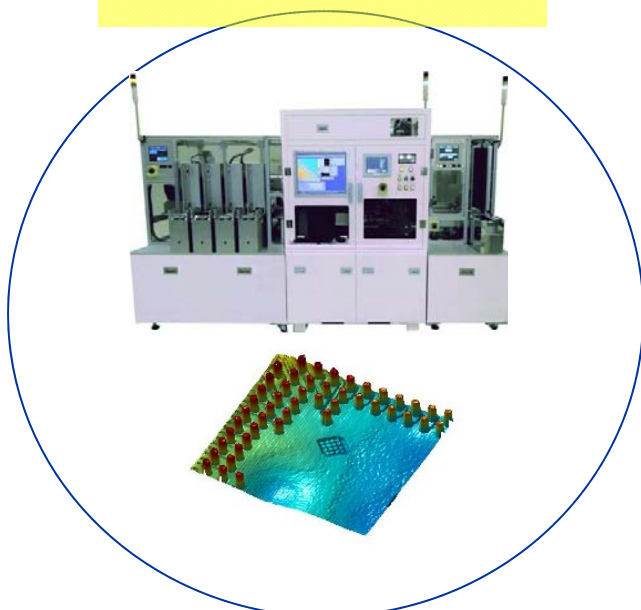
TAKAOKA TOKO CO., LTD.

Tokyo Stock Exchange Listed 6617.T

Applied Optics Inspection System

3D Inspection System

Photo-Mask Defect Inspection System

3D Confocal Inspection System

TVI-Series

■Features

■High Throughput Inline Bump Inspection system

■Automation In-Tray inspection

■Perform 4,500 UPH for individual substrate

(C4 area $\leqq$ 14 x 10mm & 21pcs/tray)

■Spec

- FOV: 13 x 13 mm

- Bump Height: Up to 240um

- Z resolution: 0.1 um

- XY resolution: 7.8 um

High Throughput

TVI-7020-RA

2

For Multiple Substrate: SAW Filter, WL-CSP

■Features

■High Speed, High repeatability for multiple panel substrate

■Bump height, Bump diameters and coplanarity measurement

■ SAW-Filter, FO-WLP and Automobile modules.

For SAW-Filter

For FO-WLP

■Spec

- Bump height: Up to 300um
- Bump diameter: from 50um (SRO opening diameter)
- Bump pitch: from 90 um
- Repeatability in height: 3σave $\leqq$ 1um *
- Processing time: Within 3 minutes for 100mm size substrate *
- * Need to investigate with samples

HVI-Series

High Temperature

Warpage Inspection

■Features

■Temperature Flexible Warpage inspection system (off-line)

■Bump height, Bump diameters and coplanarity measurement with low & high temperature

■ No need pre-processing such as scraping off the bumps on substrate

■Spec

- Temperature control profiles: Room temp. to 260 degrees

- Inspection of bump, ball & substrate variation, warpage and coplanarity under different temperature

HVI-5220-KN

3

WVI-Series: For Wafer

■Features

■ High Speed, High repeatability Wafer inspection system

■ Bump height, Bump diameters and coplanarity measurement

■ Applicable for micro bumps

■Spec

- Bump height: Up to 150um
- Bump diameter: from 50um
- Bump pitch: from 90 um
- Repeatability in height: 3σave less than 1um *
- 2Dinspection: Positioning, Bump diameter
  * Need to investigate with samples

For Wafer

For Micro bumps

WVI-Series

Mask-Defect Inspection System

MIS-FC105

■Features

■ High speed and High-sensitive Die-DB inspection

■ Gray scale processing algorithm

■ Allowed inspection and data conversion

■Spec

- Mask Type: Binary Mask (Chromium)
- Pattern size: 3um
- Defect sensitivity: 1.0um
- Mask size: 4inch – 830 x 830 mm
- Inspection time: 60min (500 x 500mm)
- Detection sensor: TDI sensor

For Flat Panel Display

MIS-FC105

MIS-CA1804T

■Features

■ High speed and High-sensitive Die-DB inspection

■ High directivity on any Critical Dimension (CD) error

■ Allowed offline inspection and review

■Spec

- Mask Type: Binary Mask (Chromium)
- Pattern size: 1.0um
- Defect sensitivity: 0.25um
- Mask size: 5-9 inch
- Inspection time: 60min (100 x 100mm)
- Detection sensor: TDI sensor

For Semiconductor

MIS-CA1804T