Fast inspection of coating defects.
Precisely measure coating thickness.

AUTOMATED
CONFORMAL COATING
INSPECTION AND MEASUREMENT SYSTEM

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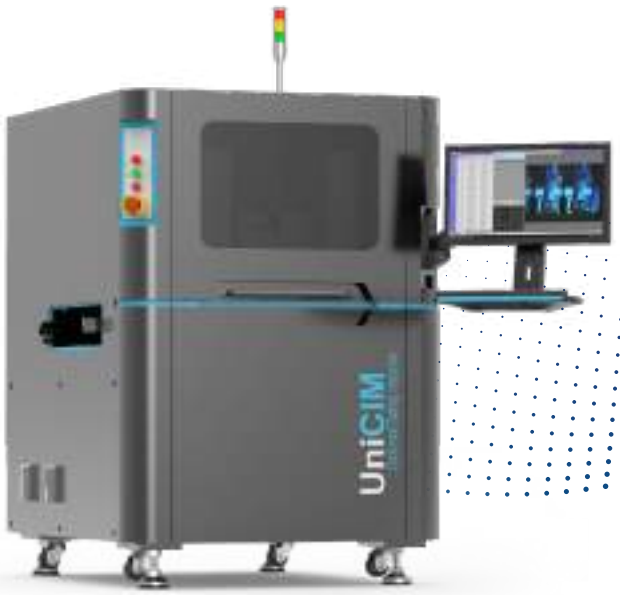
FEATURES

- Quick and accurate inspection of coating areas with high-resolution camera and multi-light system
- Acquire precise measurements for coating thickness through its unique algorithm and OCT technology
- High-rigidity, low-gravity mechanism through vibration and structural analysis
- Improvement of process quality and yield through real-time monitoring system and in-depth analysis of inspection results
- Industry Standard 4.0 Smart Factory with UniSPC/MES based on deep learning

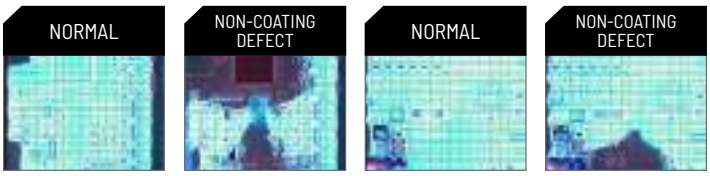


APPLICATION

Automobile Electronics ✓
Mobile Equipment ✓
Aviation ✓
Home Appliances ✓
Maritime Transport ✓
Medical Equipment ✓

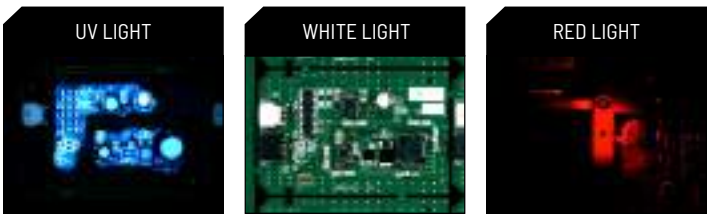
COATING DEFECT INSPECTION

Quickly and accurately detects conformal coating defects in the workplace such as No-Coating, Insufficient-Coating, and Bubble. Simultaneously identify the coating status of Non-Coating areas.



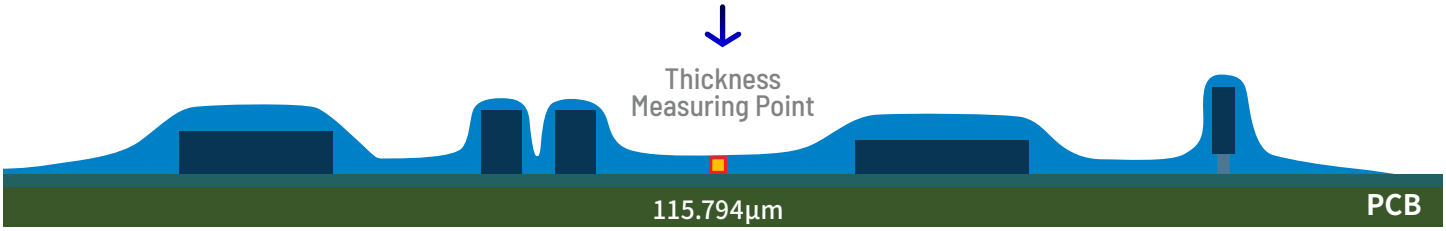
MULTI-LIGHT SYSTEM

This inspection system boasts a UV, White, and Red Multi-light system that is optimized to obtain accurate test results. It also provides a flexible testing environment according to PCB conditions.



CONFORMAL COATING THICKNESS MEASUREMENT

The inspection system provides stable and accurate measurement solutions for conformal coating thickness with 3D measuring technology based on OCT (Optical Coherence Tomography).

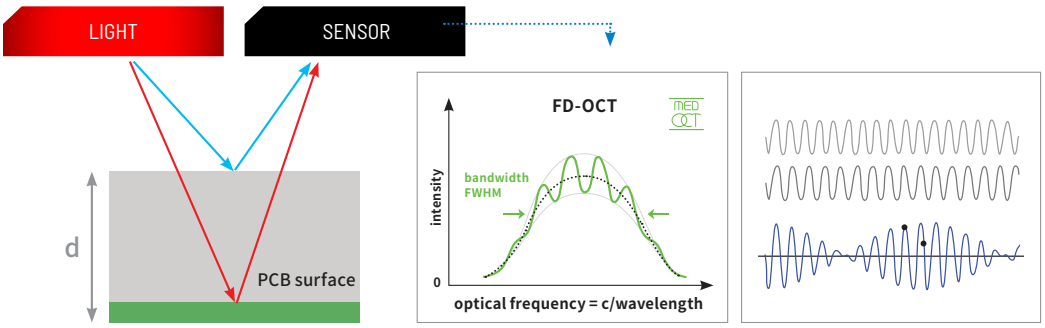


※ Measures Max. 600 µmt

Conformal Coating

THE PRINCIPAL OF OCT (OPTICAL COHERENCE TOMOGRAPHY) THICKNESS MEASUREMENT

The system calculates thickness by measuring the distance of reflected light source. The lights reflected from the surface of a PCB (Red), and conformal coating layer (Blue), are measured in the spectrum of a complex form. Its unique algorithm analyzes this spectrum to calculate conformal coating thickness. The OCT technology measures the phase of light wave to obtain accurate data with excellent reproducibility.



A. CONFORMAL COATING LIQUID
B. PCB SURFACE
A + B WAVELENGTH SYNTHESIS

INSPECTION SOFTWARE (USER INTERFACE)

The User Interface is designed to be user-friendly and it provides convenient operation regardless of conformal coating types with easy-teaching, and auto-calibration.



SPC SYSTEM (STATISTICAL PROCESS CONTROL)

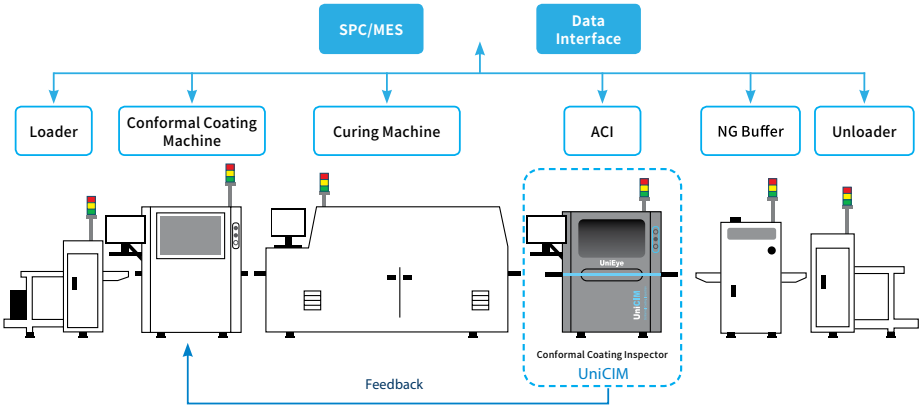
Our system analyzes the stored inspection data and classifies defects by type, while it displays the result values in various statistics. It identifies problems in process by real-time SPC monitoring, reporting, production status, filtering, sorting, and analysis tools. Endless analytical solutions for efficient processes are available at your convenience!

REPAIR

REAL-TIME SPC MONITORING

SMT VISION SOLUTION

UniEye's SMT Vision Solution provides effective management of the manufacturing processes through SPC (Statistical Process Control), data communication among multiple devices, remote monitoring/ control, and machine learning.
Acquire 4.0 Smart Factory industry innovation technology now!



AUTOMATED CONFORMAL COATING INSPECTION & MEASUREMENT SYSTEM

SPECIFICATIONS

VISION SYSTEM	
Camera	12M High Resolution Camera
Pixel Resolution	30 µm
Lighting	Multi Lighting System (UV, White, Red)
Inspection Speed	150cm^2/ sec
PCB RANGE	
PCB Size	50 x 50 ~ 490 x 480 (mm)
PCB Thickness	0.5~5T
Max PCB Warpage	±1.0 mm
INSPECTION FUNCTIONS	
Defect Type	No Coating, Coating Insufficiency, Bubbles/ Void, Smear, Coating Delamination
MEASUREMENT (3D ACI ONLY)	
Conformal Coating Thickness	10 ~ 600 µm
SYSTEM DIMENSION	
Power Requirements	Single Phase(s) 200~240V 50~60Hz, 1.1 KW
Air Requirements	5 Kgf/ cm^2 (0.5 Mpa)
Dimension (WxDxH)	1240 x 1495 x 1650 mm (Including Signal Tower : 1240 x 1495 x 2080 mm)
Weight	Approx. 760 Kg
OPTION	
Repair	O
SPC	O
Barcode	1D and 2D

DIMENSION