Conformal coating
Inspection system

MYSmart™ i70X series conformal coating inspection system





i70X series

High precision in-line conformal coating inspection system

Conformal coating is widely used to protect electronics from moisture or other environmental hazards. It is critical to know if coatings were properly applied; covering what is meant to be covered and not covering what should be exposed. Additionally, it offers comfort knowing no defects such as bubbles or orange peeling are present. Most conformal coatings include a UV tracer that allow the i70X's proprietary illumination to see coating fluids as they were applied. Optional fluid thickness measurement will return a height map of the entire PCB. Critical regions can be selected for automatic checking.

The system features advanced scanning technology with multi-color LED illumination and exclusive parallax-free optics. The optics, along with an impressive scanning distance of up to 100mm results in shadow free inspection of products with tall geometry. This means the i70X can 100% inspect next to a connector no matter if it is at the edge of a product or in the center. Complete, high resolution scans with the largest model take less than 25s. Defects such as cracks, voids and contamination can easily be detected. With the optional thickness measurement software a color map can be displayed, offering a quick check that coating is within specification.

Advanced inspection scanning units:

- High-resolution color scanner: real 24-bit color, 20,400 x 14,040 Pixels per small scan
- Multi-color LED lighting
- Achromatic lens for parallax free display

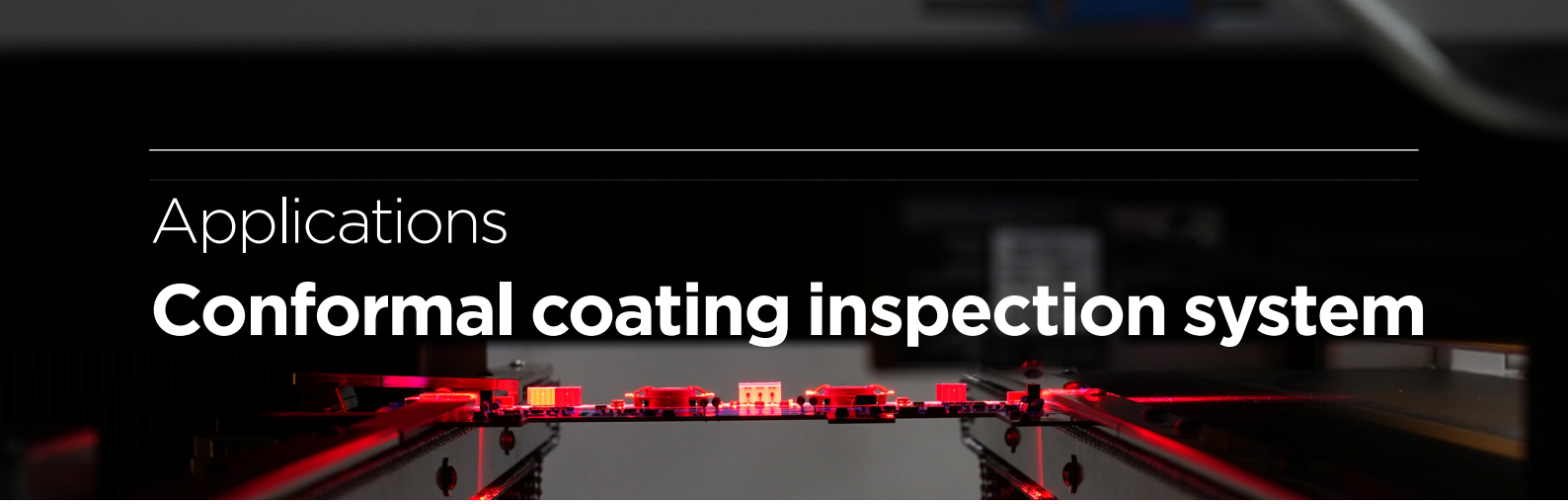
Easy programing: Fast and intuitive software

Simple user interface: Straight forward programing wizard and easy to understand interface

Fast scanning speed: Time for a full scan and processing is < 25s, and results are immediately available

Supports MES traceability: Barcodes can be read on each PCB with optional 2D barcode option. The results and detail can be connected to your MES for product traceability



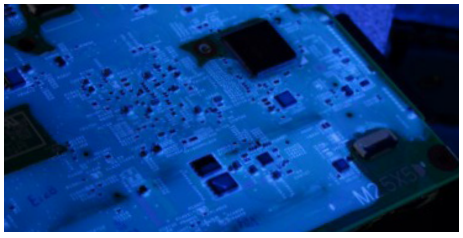


Applications

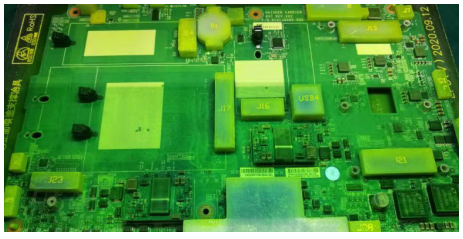
Conformal coating inspection system

Applied Industries:

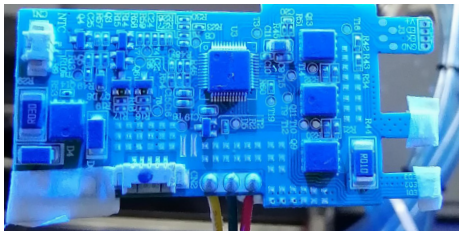
- Automotive
- Consumer
- Military
- Medical



Conformal coating (with UV tracer)



Fluorinated solution



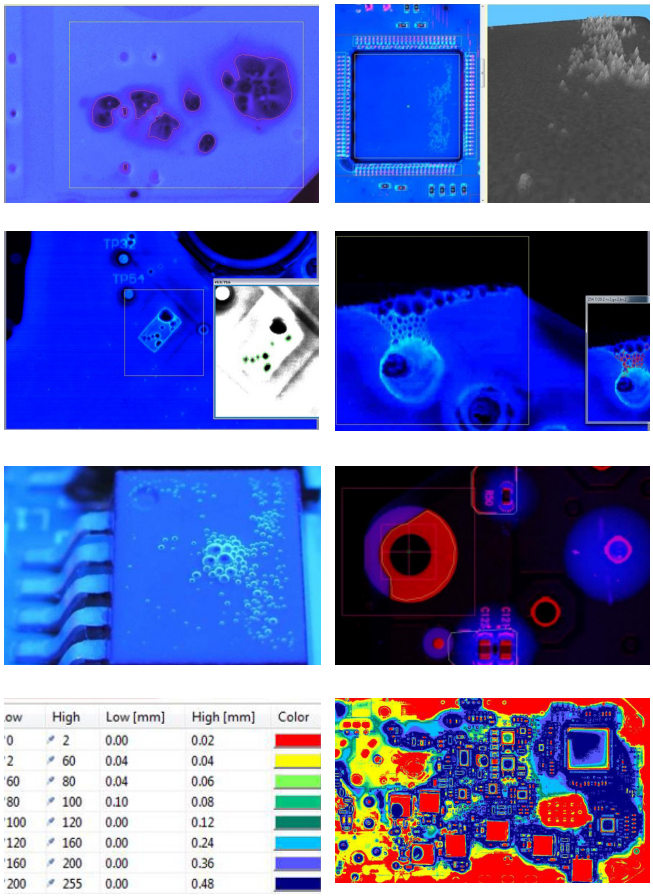
Nano coating



Gel (with UV tracer)

Process defect detection: defects such as cracks, voids, too-thin or too thick, smears, contamination, splashes orange peel, bubbles and thickness measurement.

- Detection time: 6-25s
- Resolution: 600-1200dpi
- Multi-light source system: red light, white light, UV light



ow	High	Low [mm]	High [mm]	Color
0	2	0.00	0.02	
2	60	0.04	0.04	
60	80	0.04	0.06	
80	100	0.10	0.08	
100	120	0.00	0.12	
120	160	0.00	0.24	
160	200	0.00	0.36	
200	255	0.00	0.48	

Specifications **i70X**

FACILITIES REQUIREMENTS	i70XS	i70XS-D	i70XL	i70XL-D
Power supply	220V/2.2kW			
Air pressure requirement	0.4-0.8MPa			
Exhaust requirements	Exhaust port diameter 200mm			
Dimension(WxDxH)	1150x1350x1630mm	1150x1350x1630mm	1420x1550x1780mm	1420x1550x1780mm
Weight	600kg	700kg	750kg	800kg
System certification	CE			
IPC parameter	i7, 32GB memory, 6T hard disk,Win10, 24 inchs display			
Communication	SMEMA			

BOARD HANDLING				
Conveyor payload	5kg (10kg optional)			
Conveyor height	900±30mm			
Conveyor speed	2-15m/min			
Conveyor direction	L-R(Standard); R-L(Optional)			
Conveyor width range	50-500mm			
Conveyor width adjust	Automatic			
Conveyor transport type	Stainless steel chain			
Top clearance	50mm	50mm	100mm	100mm
Bottom clearance	100mm	50mm	100mm	100mm
Board thickness	≥ 1mm (Rigid product)			
Board edge	5mm			
Return conveyor height	400±30mm			

INSPECTION PARAMETERS				
Inspection type	Top	Top Bottom	Top	Top Bottom
Max inspection area(XxY)	400x300mm	400x300mm	530x420mm	530x420mm
Resolution	600-1200dpi, 42um-21um			
Depth of field	9mm			
Display size	24 inches			
Inspection light source type	Red light, white light, UV light			

STANDARD FEATURES	OPTIONAL FEATURES
AOI module (400x300mm) or (530x420mm)	Bottom return conveyor
Conveyor	Exhaust monitoring
Audible alarm	Thickness measurement software
Stack light (3 colors)	MES
Automatic width adjust (Conveyor)	Double scan for large board
Lifting (Scanning assembly)	Conveyor mounted barcode reader
White-light illumination system (Not multi-color LED UV lamp)	License for reading 2D data matrix barcode with scanner
Safety door lock	Offline review software
Exhaust port	Inline repair station with NG buffer
Log file	Thickness measurement calibration tools
IPC (24 inches monitor and verification keypad)	Calibration plate

axxon MYCRONIC

CHINA
Axxon Automation Co.,Ltd.
A14, Silicon Valley Power
Automotive Innovation Park
334 Guanlan, Shenzhen, China
Tel: +86 755 8358 6066

NETHERLANDS
Axxon Europe B.V.
High Tech Campus 10
5656 AE Eindhoven
Netherlands

MEXICO
Mycronic Mexico
Carretera Guadalajara-Tepic
No. 7355 Col. San Juan de
Ocotán in Zapopan
Jalisco C.P. 45019

USA
Mycronic Inc.
554 Clark Road
Tewksbury, MA 01876
USA

USA
US Application Center
1450 Koll Circle
San Jose, CA 95112
USA

Please feel free to contact us if you have further inquries

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