MIRTEC

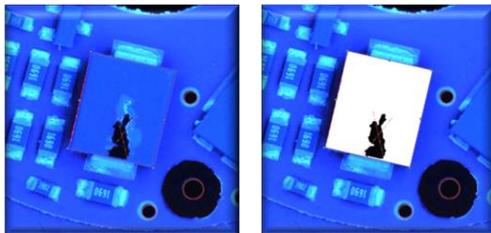# GENESYS-CC
Conformal Coating AOI Series

▶ Exclusive 15MP CoaXPress Camera System
▶ 10um / 15um Precision Compound Telecentric Camera Lens
▶ Advanced Multi-Phase Color LED / Three (3) Stage UV Lighting System
▶ Industry Leading AI Based Bubble Inspection Technology
▶ 18MP CoaXPress SIDE-VIEWER® System for Lateral Coating Inspection
▶ Standard 2D Inspection Capability
▶ Programmable Z-Axis Multi-Focus System
▶ Precision Interferometric 3D Thickness Measurement System Option
▶ Internal PCB Flipper Conveyor Option
▶ INTELLISYS® Industry 4.0 Factory Automation System

Coaxial

Vertical

Angled

Three (3) Stage UV Lighting System

GENESYS-CC

MIRTEC

AWARD WINNER

GLOBAL SMT&PACKAGING

GENESYS-CC Series Specifications

Standard Features:

▶ 15MP CoaXPress Top-Down Color Camera System (See Specifications).
▶ Intel® Multi-Core PC, 32" Flat Screen LCD Monitor, Windows 11™ OS, HDD, Mouse & Keyboard, Network LAN Card.
▶ Single-Stage High Speed Conveyor System with Programmable Width Control and Automatic PCB Support.
▶ Advanced Multi-Phase Color / Three (3) Stage UV Lighting System
▶ Standard 2D Inspection Capability.
▶ Automatic Teach Tool (ATT) Software - Automatic Programming Using Centroid Data.
▶ Local System Software: Repair Plus Software, Statistical Process Control (SPC) Software.
▶ Network Card for LAN Connection.

Options:

▶ 18MP CoaXPress SIDE-VIEWER℠ Camera System - Quantity (4) 18MP Side Cameras for Lateral Coating Inspection.
▶ Programmable Z-Axis Multi-Focus System - Provides Optimal Focus Level for Taller Devices.
▶ Top-Side PCB Clearance: Standard - 45mm (1.77 in.) / Option - 70mm (2.76 in.).
▶ 2D Bar Code Reader Options: Gun Type, Camera Type and External Mount.
▶ Precision Interferometric 3D Conformal Coating Thickness Measurement System
▶ GENESYS-CC Internal PCB Flipper Conveyor - Internal PCB Flipper for Consecutive Top and Bottom PCB Inspection.
▶ Remote PC - Software Purchased Separately.
▶ CAD Import Software: Option 1 - ePM-AOI Gerber Import Software / Option 2 - Valor Gerber Import Software w/ ODB++
▶ Remote Software: Repair System Software, Statistical Process Control (SPC) Software, Off-Line Teaching Software (OLTT).
▶ Total Remote Management Software (TRMS) - Requires Server Software for Remote PC and Client Software on All Machines.
▶ SVN Multi-System Version Control Software - Requires Separate PC Server.

System Specifications:

(Subject to change without prior notice)

PCB Inspection Area	
GENESYS-CC	50 mm x 50 mm to 510 mm x 510 mm (2.0" x 2.0" to 20.1" x 20.1") w/ PCB Indexing Option: 760 mm x 510 mm (29.92" x 20.1")
	Three-Stage Conveyor Option w/ PCB Indexing: 1,020 mm x 510 mm (40.2" x 20.1")
	PCB Flipper Conveyor Option: 50 mm x 50 mm to 450 mm x 400 mm (2.0" x 2.0" to 17.72" x 15.75")
GENESYS-CC DL (Dual Lane)	Single-Lane: 50 mm x 50 mm to 460 mm x 590 mm (2.0" x 2.0" to 20.1" x 23.23")
	Dual-Lane: 50 mm x 50 mm to 460 mm x 300 mm (2.0" x 2.0" to 20.1" x 11.81")
GENESYS-CC XL / GENESYS-CC XL HV	50 mm x 50 mm to 870 mm x 690 mm (2.0" x 2.0" to 34.25" x 27.17") / 1,200 mm x 690 mm (47.24" x 27.7") w/ PCB Indexing / 1,600 mm x 690 mm (63" x 27.7") w/ PCB Indexing and Optional Conveyor Extension
GENESYS-CC XL DL	Single-Lane: 50 mm x 50 mm to 870 mm x 555 mm (2.0" x 2.0" to 34.25" x 22.85")
	Dual-Lane: 50 mm x 50 mm to 870 mm x 300 mm (2.0" x 2.0" to 34.25" x 11.81")

Vision System (FOV Size)			
15MP CoaXPress: (3,904 x 3,904 @ 120 fps)	Option 1	Pixel Resolution: 15 um	58.56 mm x 58.56 mm (2.31" x 2.31")
	Option 2	Pixel Resolution: 10 um	39.04 mm x 39.04 mm (1.54" x 1.54")

OMNI-VISION® Inspection Technology	
3D Inspection Technology	Precision Interferometric 3D Conformal Coating Thickness Measurement System
2D Inspection Technology	15MP CoaXPress Camera System
3D Height Range / Working Distance	Standard: (20 um ~ 2,500 um), 97 ±0.5 mm / Advanced: (16 um~ 8,000 um), 42 ±4 mm
2D Inspection Item	Missing Component, Wrong Component, Mis-Alignment, Skewed Component, Polarity, Tombstone, Solder Bridge, Flipped Device, Solder Ball, Etc.
3D Inspection Item	Conformal Coating Thickness

Additional Specifications	
Lens Configuration	Precision Telecentric Compound Lens Design
Lighting System	9CH RGBW+UV Light (R, G, B / Horizontal W, Vertical W, Coaxial W / Angled UV, Coaxial UV, Vertical UV)
SIDE-VIEWER® Camera System	Quantity Four (4) - 18MP CoaXPress Side-Angle Color Cameras for Lateral Coating Inspection.
PCB Top-Side Clearance	GENESYS-CC: 45 mm (1.77") ; Option: 70 mm (2.76") / GENESYS-CC XL: 45 mm (1.77") / GENESYS-CC XL HV: 45 mm (1.77")
PCB Bottom-Side Clearance	GENESYS-CC: 50 mm (1.97") ; w/ Flipper: 70 mm (2.76") / GENESYS-CC XL: 50 mm (1.97") / GENESYS-CC XL HV: 43 mm (1.69")
PCB Top-Edge Clearance	GENESYS-CC: 3 mm / GENESYS-CC XL: 3 mm / GENESYS-CC XL HV: 5 mm
PCB Bottom-Edge Clearance	GENESYS-CC: 3.5 mm / GENESYS-CC XL: 3.5 mm / GENESYS-CC XL HV: 12 mm
Maximum PCB Warpage	±5 mm
Maximum PCB Weight	GENESYS-CC: 4 Kg (8.82 lbs) ; w/ Flipper: 2 Kg (4.41 lbs) / GENESYS-CC XL: 7 Kg (15.43 lbs) / GENESYS-CC XL HV: 5 Kg (55.12 lbs)
PCB Thickness Range	GENESYS-CC: 0.5 mm - 5 mm ; w/ Flipper: 0.8 mm - 3 mm / GENESYS-CC XL: 1 mm - 5 mm / GENESYS-CC XL HV: 1 mm - 5 mm
Minimum Component Inspection	0402 Chip (mm) / 01005 Chip (in) / 0.3 Pitch (mm)
Robot Positioning System	Precision Closed Loop AC Servo Drive, Resolution: 1 um / Repeatability: ±10 um
Power Requirements	Single Phase 200~240V 50~60Hz; 1.1 KW, Breaker Capacity: 25 Amp
Air Requirements	5 Kgf / cm² (0.5 Mpa); (71 PSI)

Machine Dimensions and Weight		
GENESYS-CC	Single-Stage.: 1,080 mm L x 1,470 mm W x 1,610 mm H (42.5" x 57.87" x 63.39") Three-Stage.: 1,630 mm L x 1,470 mm W x 1,610 mm H (64.17" x 57.87" x 63.39")	950 Kg (2,094 lbs.)
GENESYS-CC DL	1,080 mm L x 1,610 mm W x 1,610 mm H (42.5" x 63.39" x 63.39")	1,030 Kg (2,270.76 lbs)
GENESYS-CC XL / DL / HV (Extended Conveyor not available w/ DL)	1,600 mm L × 1,580 mm W × 1,660 mm H (63" x 62.2" x 65.35") Standard Conveyor: 1,700 mm (66.93") / Extended - 2,400 mm (94.49")	1,700 Kg (3,747.86 lbs)