Art of 3D Technology

Uncompromising and leading solutions

World Best
KOHYOUNG

KY8030-2

World - Best Seller Full 3D Solder Paste Inspection

- The best-selling standard 3D SPI in the world
- The strongest printing process optimization tool
- The world's best measurement accuracy and reliability

User-friendly Software

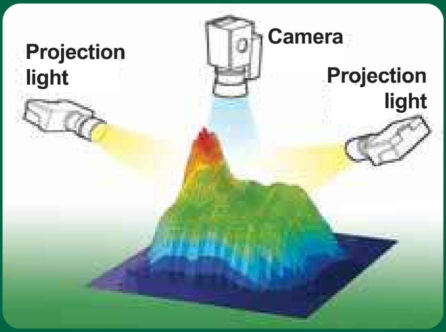
3D Data based SMT Process Control System

Real Time Warp Compensation

Koh
Young
Technology
Intelligent
Inspection

KY8030-2

World-Best Seller Full 3D Solder Paste Inspe



↗ Dual Projection Technology

KY8030-2 delivers true 3D inspection without concern for inaccuracies resulting from shadowing.

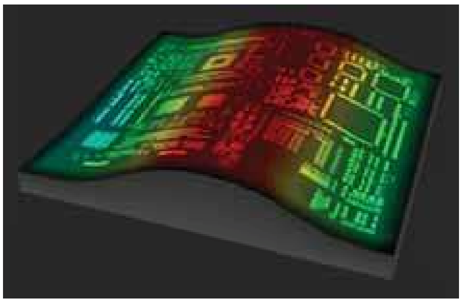
Warp Compensation

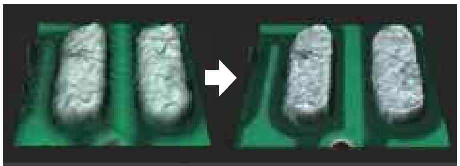
Optional ☑

Z-tracking 3D Compensation Solution

- Koh Young's **Multi-Frequency Moiré Technology** applied *Patented
- Real time measurement and compensation of board warp, with respect to the ideal plane
- Real time online provision of high quality PCB images with measurement data

PCB Warp 3D Display





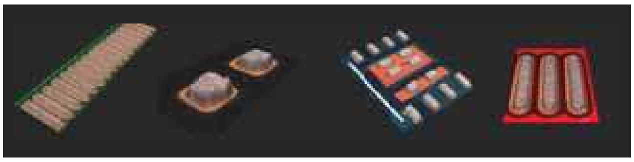
Before Warp Compensation | After Warp Compensation

- Optimized display for the user with smart menu groupings
- Supports user's defect readability and system usability by more intuitive software
- Detects a wide range of defects using real images and 3D data

Renewal GUI

Real Color 3D Image

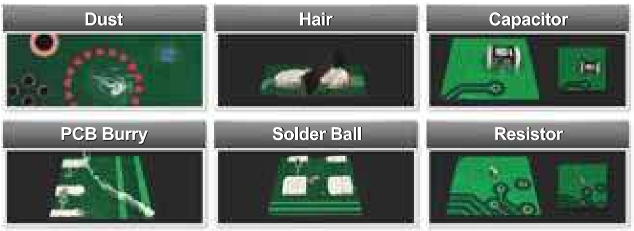
Optional ☑



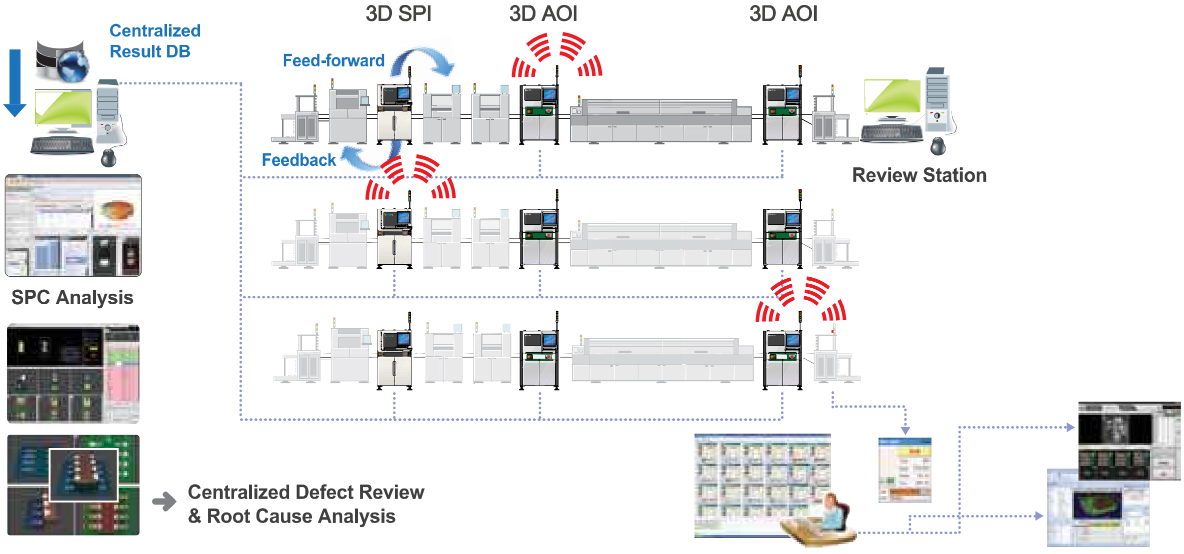
Foreign Material Inspection

FMI Foreign Material Inspection

Optional ☑

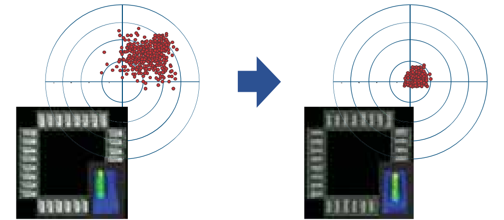


Koh Young's KSMART Solution



Closed Loop Real Time Screen Printer Communication

Optional ☑



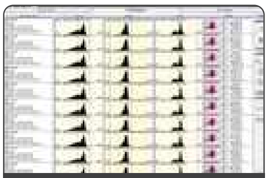
Offset Histogram before and after using feedback

Defective Panel Marking

- Real time communication of printing process monitoring data with screen printers
- Result reporting after optimization by Koh Young's SPC software
- Real time communication of pick-and-place process monitoring data with mounters
- Supports process optimization by controlling panels containing defects

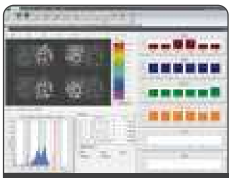
SPC Plus Printing Process Optimization Tool

- Review, diagnosis and optimization of printing, pick-and-place and reflow processes
- 3D data based SPI-AOI communication solution
- Traces root cause of defects by storing and communicating inspection results from Koh Young's 3D SPI and 3D AOI Systems



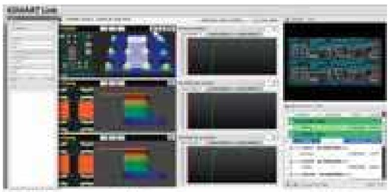
PCB Histogram

Defect Data Analysis

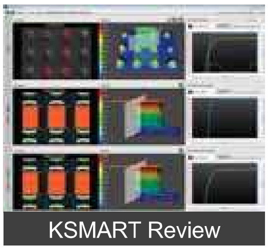


Process Capability Index Display

KSMART Link Communication Solution



KSMART Link



KSMART Review

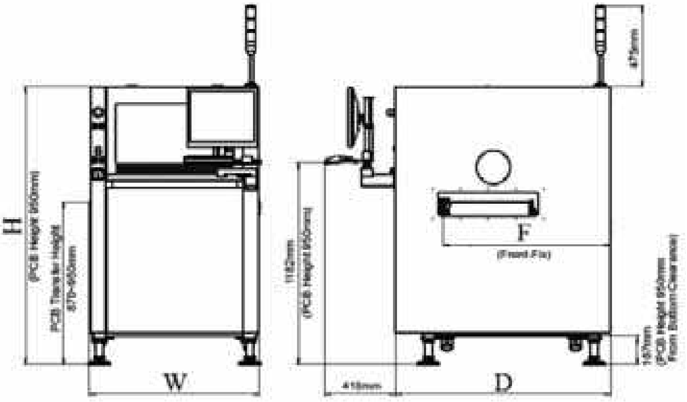
- Provides intuitive statistical process analysis data by using reliable 3D measurement data
- Communicates with a wide range of production management systems

Must-check Requirements of 3D SPI System

	Requirements	Solutions		
	Solution to Shadow Problem	3D Shadow Free Moiré Technology & Dual Projection		
	Real Time PCB Warp Compensation (2D+3D Solution)	Warp Compensation		
	Operator User-friendliness	Renewal GUI, Real Color 3D Image		
	Foreign Material Inspection	3D Foreign Material Inspection (optional)		
Inspection Items	Metrology Capability	Volume, Area, Height, Offset, Bridging, Shape Deformity, Coplanarity		
	Types of Defects	Insufficient/Excessive/Missing Paste, Bridging, Shape Deformity, Paste Offset, Coplanarity		
Inspection Performance	Camera Resolution	15µm	20µm	25µm
	FOV Size	30×30mm(1.18×1.18 inch)	40×40mm(1.57×1.57 inch)	50×50mm(1.97×1.97 inch)
	Full 3D Inspection Speed	22.5~56.1 cm²/sec (Inspection speed varies by PCB and inspection condition.)		
	Min. Distance between Paste Deposit	100µm (3.94 mils)	150µm (5.91 mils)	200µm (7.87 mils)
	Camera	4M Pixel Camera		
	Illumination	IR-RGB LED Dome Styled Illumination		
	Z Resolution	0.37µm		
	Height Accuracy (on KY Calibration Target)	1µm		
	X,Y Accuracy	2.5 nano meter (PZT Accuracy)		
	01005 Inspection Capacity Gage R&R (±50% tolerance)	< 10% at 6σ		
	Max. Inspection Size	10×10mm	0.39×0.39 inch	
	Max. Inspection Height	400µm (2mm optional)	15.75 mils (78.74 mils optional)	
	Min. Distance between PADs	100µm (150µm paste height)	3.94 mils (5.91 mils paste height)	
	Various colored PCB Inspection	Possible		
PCB Handling	Conveyor Width Adjustment	Automatic		
	Conveyor Fix Type	Front / Rear Fixed (factory setting)		
Software	Supported Input Format	Gerber data (274X, 274D), ODB++ (optional)		
	Programming S/W	ePM-SPI		
	Statistical Process Control Tool	SPC Plus: - Histogram, X-bar & R-Chart, X-bar & S-Chart, Cp & Cpk, %Gage R&R - Real Time SPC & Multiple Display - SPC Alarm KSMART Remote Monitoring System		
	Operator User-friendliness	Library Station: Size Dependent Library for Inspection Condition Setting KYCal: Auto Camera Calibration, Auto Illumination Calibration, Auto Height Calibration		
	Operating System	Windows 7 Ultimate 64bit		
Add-on Solutions	1D & 2D Handy Barcode Reader 1D & 2D Inline Barcode Reader Offline Programming Station Offline SPC Plus Station Standard Calibration Target UPS	KSMART Remote Monitoring System Warp Compensation (Z-tracking) Foreign Material Inspection Review Station Closed Loop Real Color 3D Image Display		

※ Above specifications are subject to change without notice.

	M	L	DL	XL
Max. PCB Size	330X330mm (13X13 inch)	510X510mm (20X20 inch)	Dual: 510X320mm (20X12.6 inch) Single: 510X580mm (20X22.8 inch)	850X690mm (33.4X27.1 inch)
Min. PCB Size	50X50mm (1.97X1.97 inch)			70X70mm (2.7X2.7 inch)
PCB Thickness	0.4~5mm (0.015~0.20 inch)			0.5~8mm (0.02~0.31 inch)
Max. PCB Weight	Standard: 2kg, Heavy Weight Option: 5kg			10Kg (22 lbs)
Machine Weight	550Kg (1212 lbs)	600Kg (1322 lbs)	700Kg (1543 lbs)	850Kg (1874 lbs)
Bottom Side Clearance	50mm (1.97 inch)			
Supplies	200~240VAC, 50/60Hz Single Phase, 5Kgf/cm²			
W	820mm (32.2 inch)	1000mm (39.3 inch)		1350mm (53.1 inch)
D	1265mm (49.8 inch)	1265mm (49.8 inch)	1445mm (56.9 inch)	1445mm (56.9 inch)
H	1627mm (64 inch)			
F	985mm (38.7 inch)		1165mm (45.8 inch)	



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