

KY8030-2

The Industry's **Most Popular True 3D Solder Paste Inspection Solution**

The KY8030-2 has maintained the industry's leading position as the best-selling True 3D Solder Paste Inspection System since entering the market. Combining Koh Young's patented 3D dual-inspection Moiré projection technology, it effectively eliminates critical shadow and specular reflection challenges other 3D inspection systems simply cannot address.



Best-in-class Measurement Accuracy and Inspection Reliability



Active Warp Compensation



Automated Solder Paste Dispensing: Auto-Rework



**KSMART Solutions:
True 3D Measurement-based
Process Control System**



**Zero-defect through AI-Powered
Koh Young Process Optimizer(KPO)**

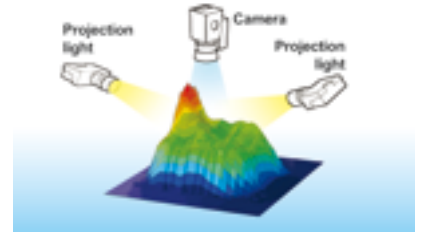


KY8030-2 The Industry's Most Popular True 3D Solder Paste Inspection Solution



Best-in-class Measurement Accuracy and Inspection Reliability

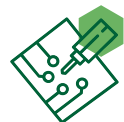
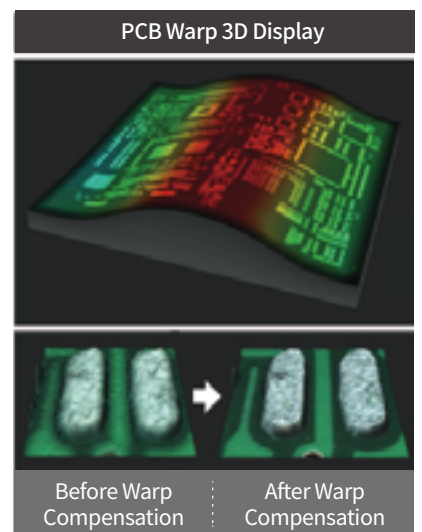
- Koh Young's inspection systems have become the industry standard. The KY8030-2 features a pioneering True 3D Moiré and dual-direction projection by eliminating shadow and specular reflection challenges without compromising accuracy.



Active Warp Compensation

- Z-tracking 3D compensation**

The unique Koh Young warp compensation technology actively calculates and detects any substrate warpage. Using its exclusive 3D imaging and algorithms, Koh Young considers multiple elements like slope, stretch, twist, bow, and shrinkage to guarantee an accurate measurement and to meet the ultimate inspection system criteria.



Automated Solder Paste Dispensing: Auto-Rework

- KY8030-2 dispenses solder paste automatically as an optional add-on solution. The high-precision and user-friendly dispensing system helps eliminate costly mistakes due in large part to insufficient solder in open joints, lean fillets, and weak joints. The automatic dispensing option reduces operational costs, improves line efficiency, and strengthens profitability by eliminating board scrap and rework. Once Koh Young's SPI is configured with the Auto-Rework option, it becomes more than an inspection system. It becomes a true process optimizer.

Test Results		Small Sized Pad	
		Before	
		Volume	30.24 %
		Height	86.68 um
		Area	31.4 %
		Offset X	0.001 mm
		Offset Y	-0.008 mm
↓			
		After	
		Volume	78.38 %
		Height	92.26 um
		Area	76.46 %
		Offset X	0.001 mm
		Offset Y	-0.005 mm

Test Results		BGA Pad	
		Before	
		Volume	22.4 %
		Height	51.86 um
		Area	38.87 %
		Offset X	-0.001 mm
		Offset Y	0.004 mm
↓			
		After	
		Volume	74.64 %
		Height	71.71 um
		Area	93.68 %
		Offset X	-0.001 mm
		Offset Y	0.004 mm

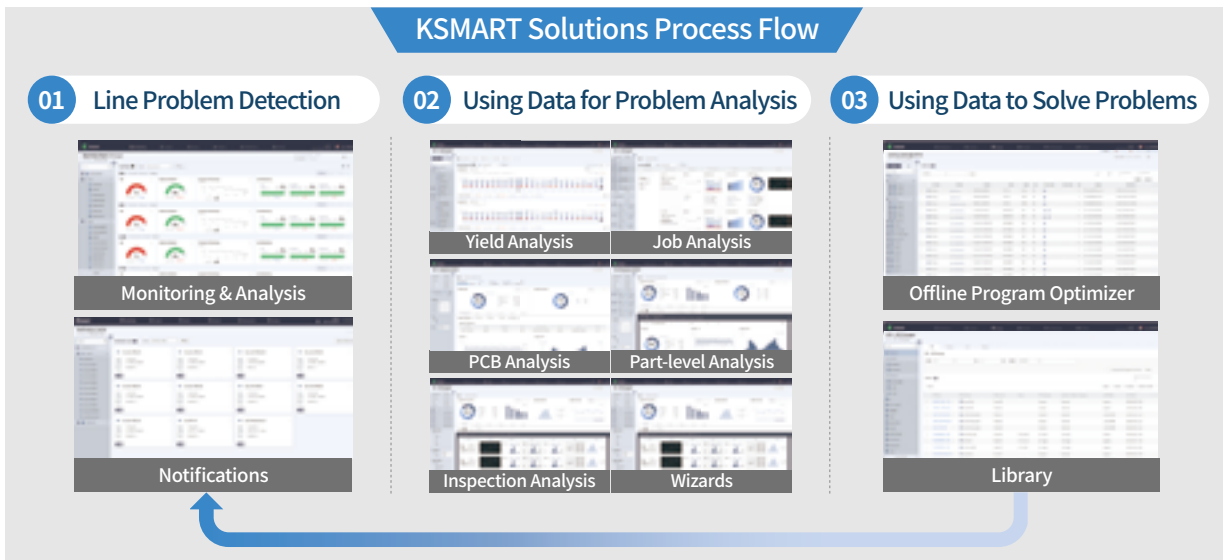


KSMART Solutions: True 3D Measurement-based Process Control System

- Koh Young pioneered True 3D measurement technology 20 years ago to create a zero-defect future. This gave rise to KSMART Solutions and its continuous efforts to leverage data and connectivity.
- KSMART Solutions uses Artificial Intelligence to help automate process control while focusing on data management, analysis, and optimization. It collects data from across the factory line for defect detection, real-time optimization, enhanced decisions, and traceability to improve metrics, increase quality, and lower costs by eliminating variance, false calls, and escapes.

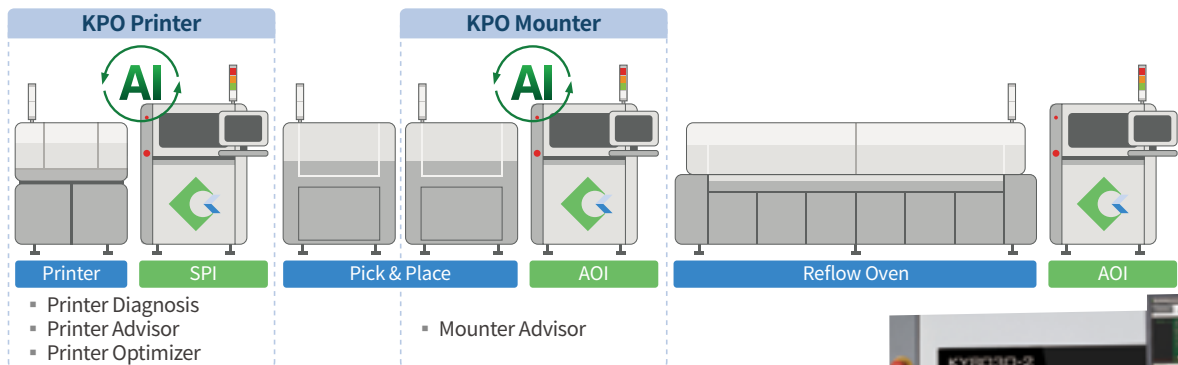
“KSMART Solutions is the Gateway to a Smart Factory”

- Converts data into knowledge for effective and quality-driven actions
- Delivers an AI-powered process analysis and optimization tool
- Achieves an autonomous process optimization facility



Zero-defect through AI-Powered Koh Young Process Optimizer (KPO)

- Koh Young is driven to help customers achieve a Zero-defect print process scenario. The AI-powered Koh Young Process Optimizer (KPO) solution automatically exercises complex algorithms to develop and implement print process improvements. By actively monitoring the print process, KPO sends operators real-time performance diagnostics and threshold alerts – it even implements process change automatically. KPO ensures real-time print process reliability without dedicated experts.



“Everyone knows solder paste printing is the core of quality. If you do not get it right at this stage, nothing else matters. We had large boards with around 4000 parts and 50 different BGAs and finding a vendor was difficult. We were very happy to see our yields increase overnight when we installed our first Koh Young SPI system.

- EMS VP Operations



Specification

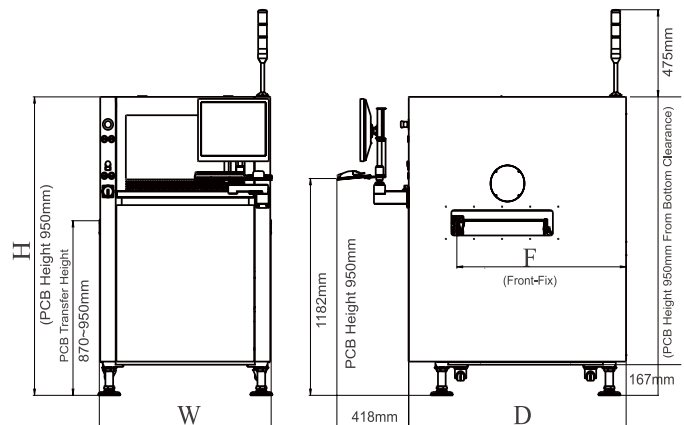
Requirements		Solutions				
Solution to Shadow Problem		3D Shadow Free Moiré Technology & Dual Projection				
PCB Warp Compensation		Active Warp Compensation (Z-Tracking)				
User Friendly Operation		Renewal GUI, Real Color 3D Image				
Whole-board Foreign Material Inspection		3D Foreign Material Inspection				
Inspection Items	Metrology Capability	Volume, Area, Height, Offset, Bridging, Shape Deformity, Paste Offset, Coplanarity				
	Types of Defects	Insufficient, Excessive, Missing Paste, Bridging, Shape Deformity, Paste Offset, Coplanarity				
KY8030-2 Inspection Performance	Model	Camera & Resolution	FOV Size	Full 3D Inspection Speed	Minimum Distance Between Pads	Inspection Height (Max & Min)
	KY8030-2	4M 10um	20 x 20	11.1 cm ² /sec (0.36 FOV/Sec)	100um	2000um / 450 um 78.7mils / 17.7mils
		4M 15um	30 x 30	23.7 cm ² /sec (0.38 FOV/Sec)	150um	
		4M 20um	40 x 40	40.0 cm ² /sec (0.40 FOV/Sec)	200um	
		4M 25um	50 x 50	59.5 cm ² /sec (0.42 FOV/Sec)	200um	
Illumination		IR-RGB Led Dome Styled Illumination (Optional)				
Max Inspection Size		< FOV				
Multi-Colored PCB Inspection		Possible				
PCB Handling	Conveyer Width Adjustment	Automatic				
	Conveyer Fix Type	Front / Rear Fixed (Factory Setting)				
Software	Supported Input Format	GERBER Data (274X, 274D), ODB++ (Optional)				
	Programing Software	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 / Automatic Report from Remote Computer)				
	User-Friendly Operator	Library Manager & KYCAL (Auto Camera Calibration, Auto Illumination Calibration, Auto Height Calibration)				
	Operating System	WINDOWS 10 IoT ENTERPRISE LTSC 2019				
Add-On Solutions	- 1D & 2D Handy Barcode Reader - 1D & 2D Inline Barcode Reader - Auto-Verification - Auto-Rework* - UPS - Standard Calibration Target - Long Board Option		- Offline Programming Station - ODB++ - SPC Plus for Remote Computer - Offline SPC Plus Station - Review Station - Panasonic APC Interface (FF/FB) - Fuji Nexim Interface - IPC-CFX Interface		- KSMART Solutions (Monitoring and Analysis, Remote Access, Offline Program Optimizer, Link Data Analysis, Notification) - KPO Printer (Printer Diagnosis, Printer Advisor, Printer Optimizer)	

The above specifications are subject to change without notice.

* Machine dimensions, PCB Size, and clearance will change if the Auto-Rework option is selected.

	M		L		XL	
	Single Lane	Dual Lane	Single Lane	Dual Lane	Single Lane	Dual Lane
Max. PCB Size (X x Y)	330 x 330mm (12.9 x 12.9in)	Single Mode ^o	510 x 510mm (20.0 x 20.0in)	Single Mode ^o	850 x 690mm (33.4 x 27.1in)	Single Mode
		Dual Mode		Dual Mode		Dual Mode
	330 x 580mm (12.9 x 22.8in)		510 x 580mm (20.0 x 22.8in)		850 x 580mm (33.4 x 22.8in)	
	330 x 325.5mm (12.9 x 12.8in)		510 x 320mm (20.0 x 12.5in)		850 x 320mm (33.4 x 12.5in)	
Min. PCB Size	50 x 50mm (1.9 x 1.9in)			70 x 70mm (2.7x2.7in)		
PCB Thickness	0.4 ~ 4mm (0.01 ~ 0.15in)		0.4 ~ 5mm (0.01 ~ 0.19in)		0.6 ~ 8mm (0.02 ~ 0.31in)	
Max. PCB Weight	Standard : 2kg (4.4lbs), Heavy weight option : 5kg (11.0lbs)				10kg (22.0lbs)	
Machine Weight	550kg (1212.5lbs)	600kg (1322.7lbs)	600kg (1322.7lbs)	700kg (1543.2lbs)	850kg (1873.9lbs)	900kg (1984.1lbs)
Bottom Clearance	50mm (1.9in)					
Supplies	220 Vac ± 10%, 50/60Hz, 1 Phase, 5Kgf/cm ² (0.45MPa)					
W	820mm (32.2in)		1000 mm (39.3in)		1350mm (53.1in)	
D	1265mm (49.8in)	1445mm (56.8in)	1265mm (49.8in)	1445mm (56.8in)	1445mm (56.8in)	
H	1627mm (64.0in)					

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^o Please contact us for more information about PCB Sizes.



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