KOH YOUNG TECHNOLOGY
INTELLIGENT INSPECTION

KY8080

The **Best Value True 3D** Solder Paste Inspection Solution

Delivering an ideal mix of cost and performance, the KY8080 provides the best value for a varied set of application needs demanding enhanced product quality, increased productivity, and improved operational efficiency.

- Advanced True 3D Measurement Accuracy and Inspection Reliability
- Ideally Blending Cost with Performance
- Real-Time Warp Compensation
- SPC-based Process Improvements
- KSMART Solutions: True 3D Measurement-based Process Control System

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The **Best Value True 3D**
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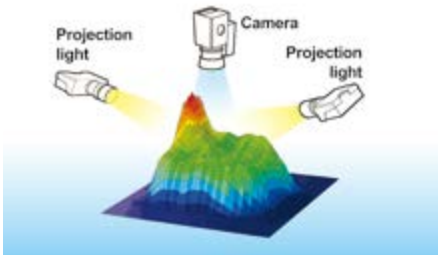
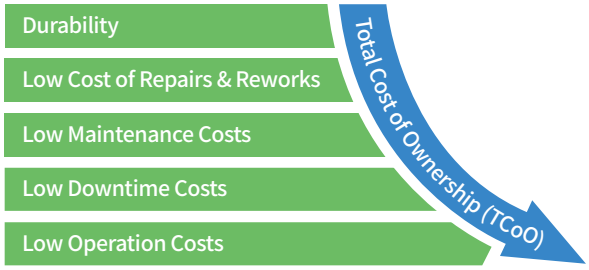
Advanced True 3D Measurement Accuracy and Inspection Reliability

- The printing process is an essential part of the electronics manufacturing and it accounts for over 70% of defects generated in a surface mount assembly line. It is also one of the most important part of the SMT process. As components become smaller and more complex, it is becoming more difficult to manage the solder paste printing process. Identifying defects earlier will reduce unwanted costs in the long run. The KY8080 reliably identifies process defects by integrating Koh Young's propriety True 3D measurement and inspection technologies.



Ideally Blending Cost with Performance

- Bringing together Koh Young's Optomechatronics expertise with its unique vision algorithms and pioneering inspection technologies, the KY8080 blends performance and cost to minimize the total cost of ownership (TCoO).

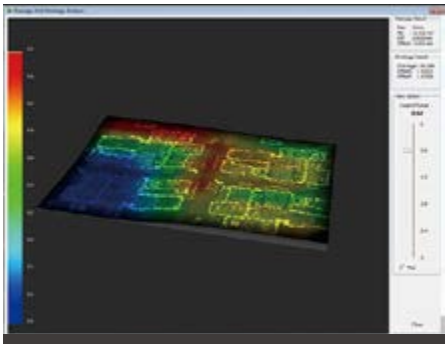


Warp Compensation

Real-Time Warp Compensation

- **Z-Tracking 3D Compensation (optional)**

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



Warpage and Shrinkage Analysis

SPC-based Process Improvements

- Koh Young provides a state-of-the-art SPC toolkit used widely throughout the industry. The comprehensive SPC Plus allows users to easily understand their production process with the following features: histograms, X-bar & R-chart, X-bar & S-chart, Cp & CpK, % of Gage R&R. Data can be viewed in real-time and in a multiple display format. The software even generates automatic reports from a remote computer. The KY8080 allows customers to improve their production quality while reducing operating costs to increase manufacturing visibility.

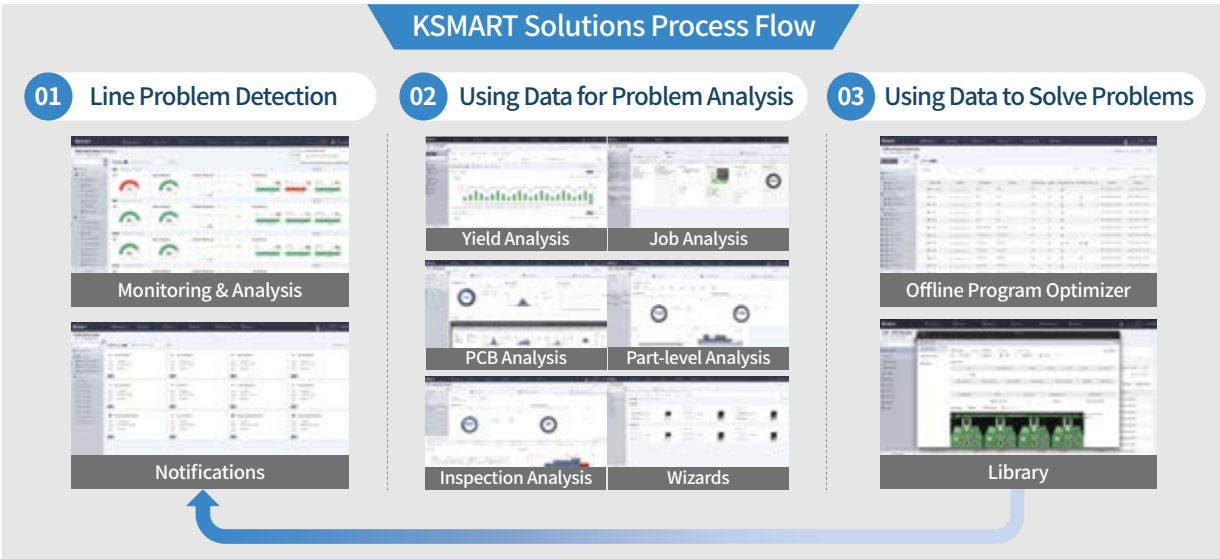
SPC Plus Software

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



"In our eyes, a machine has to not only be powerful and perform all the promised feature, but also provide a good return on investment. This machine has definitely made all of us at our company satisfied!"

- OEM Manufacturing Manager

Specification

Requirements	Solutions
Solution to Shadow Problem	3D Shadow Free Moiré Technology & Dual Projection
PCB Warp Compensation	Real-Time 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

KY8080 Inspection Performance	Model	Camera & Resolution	FOV Size	Full 3D Inspection Speed	Minimum Distance Between Pads	Max. Inspection Height
	KY8080	4M 15um 4M 20um	30 x 30 40 x 40	23.07cm²/sec (0.39 Sec/FOV) 30.18cm²/sec (0.53 Sec/FOV)	15um (150um) 20um (200um)	400um (15.7mils) [High Height Option Available]
	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

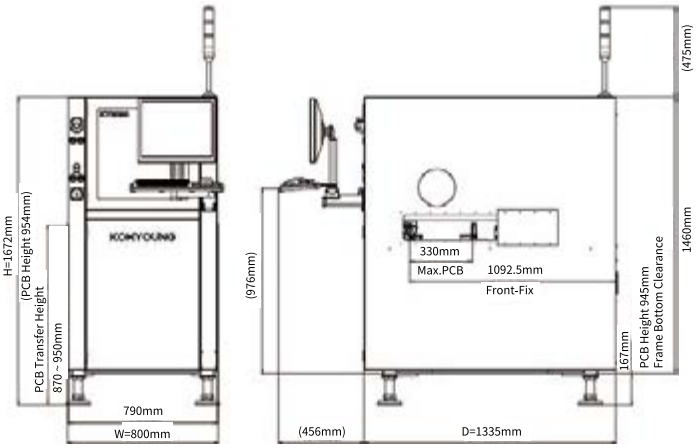
Add-On Solutions

- 1D & 2D Handy Barcode Reader
- 1D & 2D Inline Barcode Reader
- UPS
- Standard Calibration Target
- Offline Programming Station
- ODB++
- SPC Plus for Remote Computer
- Offline SPC Plus Station
- Review Station
- Panasonic APC Interface (FF/FB)
- Fuji Nexim Interface
- KSMART Solutions
  (Monitoring and Analysis, Remote Access, Offline Program Optimizer, Link Data Analysis, Notification, Report)

The above specifications are subject to change without notice.

	M		L		XL	
	Single Lane	Dual Lane	Single Lane	Dual Lane	Single Lane	Dual Lane
Max. PCB Size (X x Y)	350 x 330mm (13.8 x 13in)	Single Mode ° 350 x 580mm (13.8 x 22.8in) Dual Mode 350 x 320mm (13.8 x 12.6in)	510 x 510mm (20.1 x 20.1in)	Single Mode ° 510 x 580mm (20.1 x 22.8in) Dual Mode 510 x 320mm (20.1 x 12.6in)	690 x 690mm (27.2 x 27.2in)	Single Mode 690 x 580mm (27.2 x 22.8in) Dual Mode 690 x 320mm (27.2 x 12.6in)
Min. PCB Size	50 x 50mm (2 x 2in)		50 x 50mm (2 x 2in)		50 x 50mm (2 x 2in)	
PCB Thickness	0.4 ~ 4mm (0.016 ~ 0.16in)		0.4 ~ 4mm (0.016 ~ 0.16in)		0.4 ~ 8mm (0.016 ~ 0.31in)	
Max. PCB Weight	3kg (6.6lbs)		3kg (6.6lbs)		10kg (22.0lbs)	
Machine Weight (Approx.)	500kg (1102lbs)	550kg (1212lbs)	550kg (1212lbs)	600kg (1322lbs)	750kg (1653.5lbs)	800kg (1763.7lbs)
Bottom Clearance	30mm (1.18in)					
Supplies	220 Vac ± 10%, 1 Phase, 50/60Hz, 5Kgf/cm² (0.45MPa)					
W	800mm (31.5in)		1000 mm (39.3in)		1200 mm (47.2in)	
D	1335mm (52.6in)		1335 mm (52.6in)		1475 mm (58.1in)	
H	1627mm (64.1in)		1627 mm (64.1in)		1627 mm (64.1in)	

(The above specifications are subject to change without notice.)
° Please contact us for more information about PCB Sizes.



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