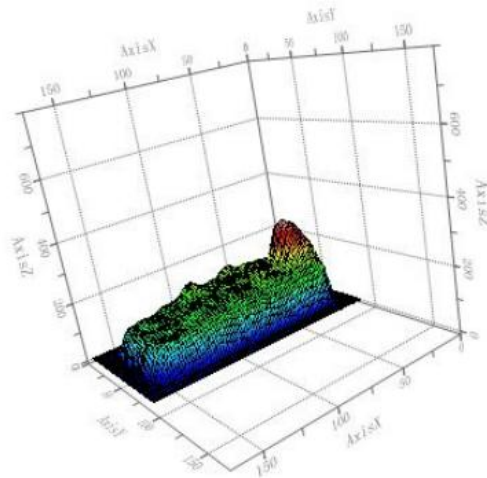
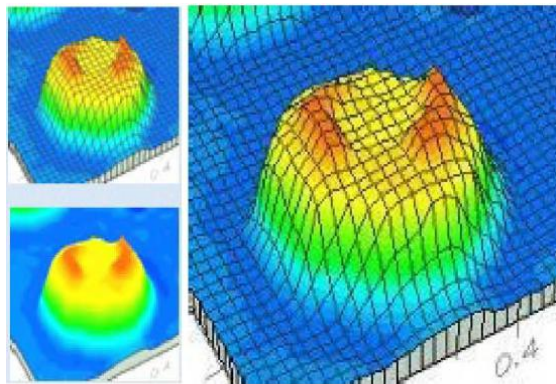
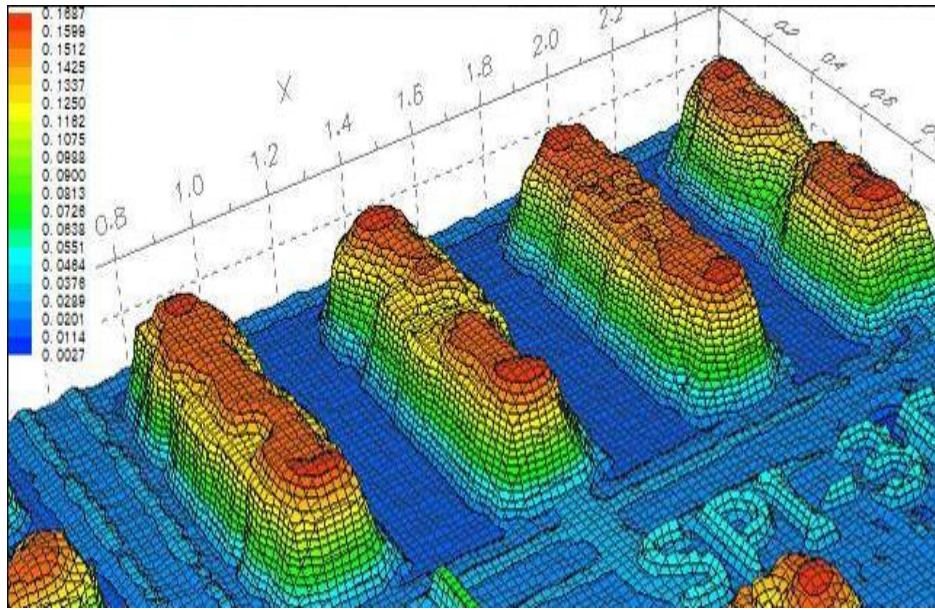


# 3D SPI Machine for Solder Paste Inspection , model:SH8650

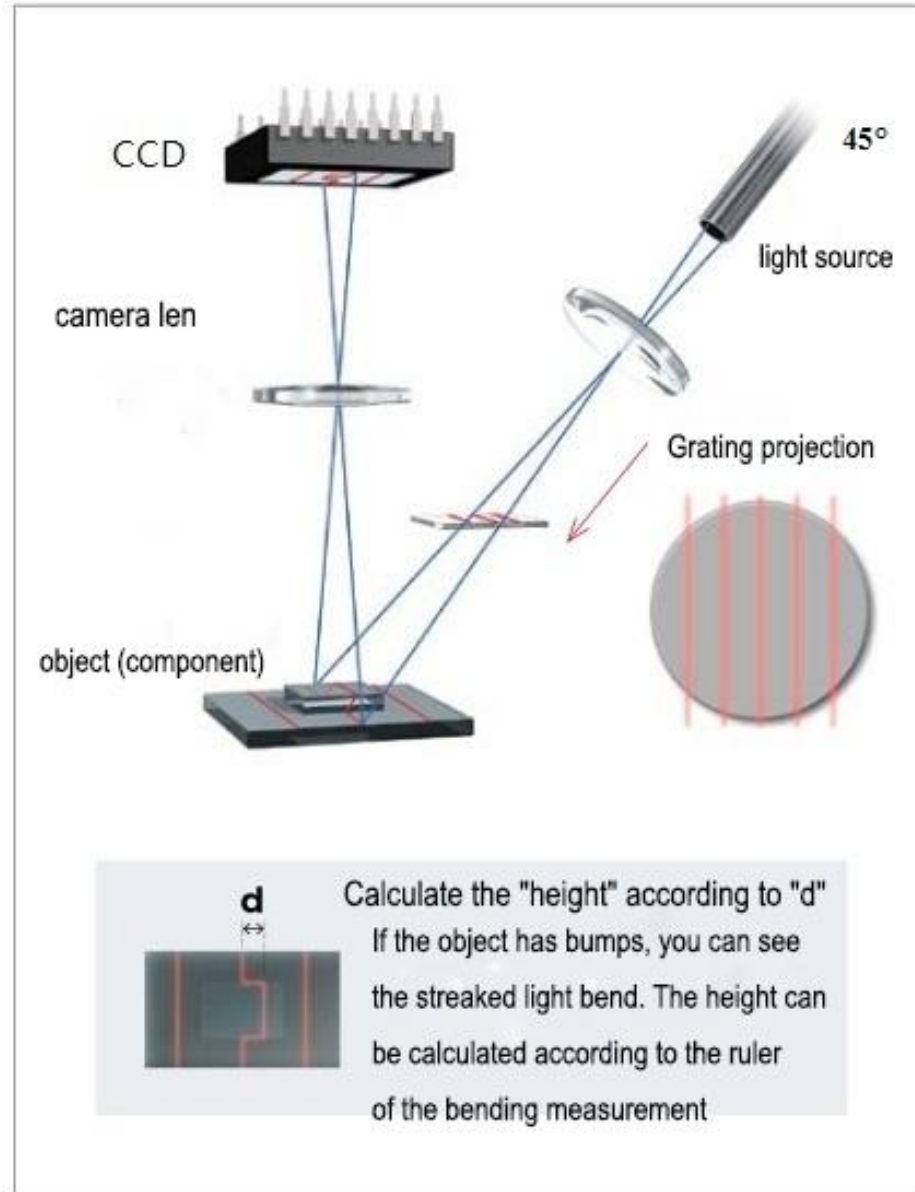
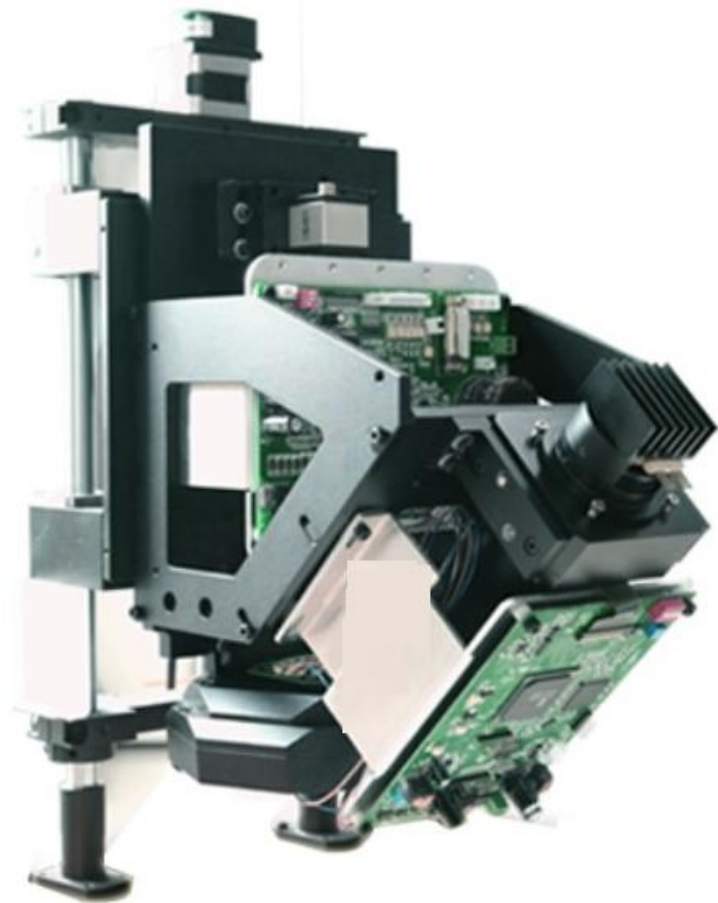


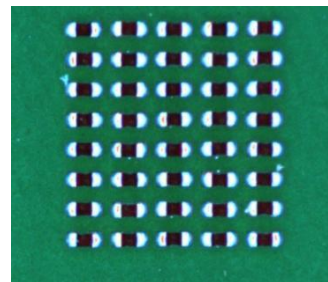
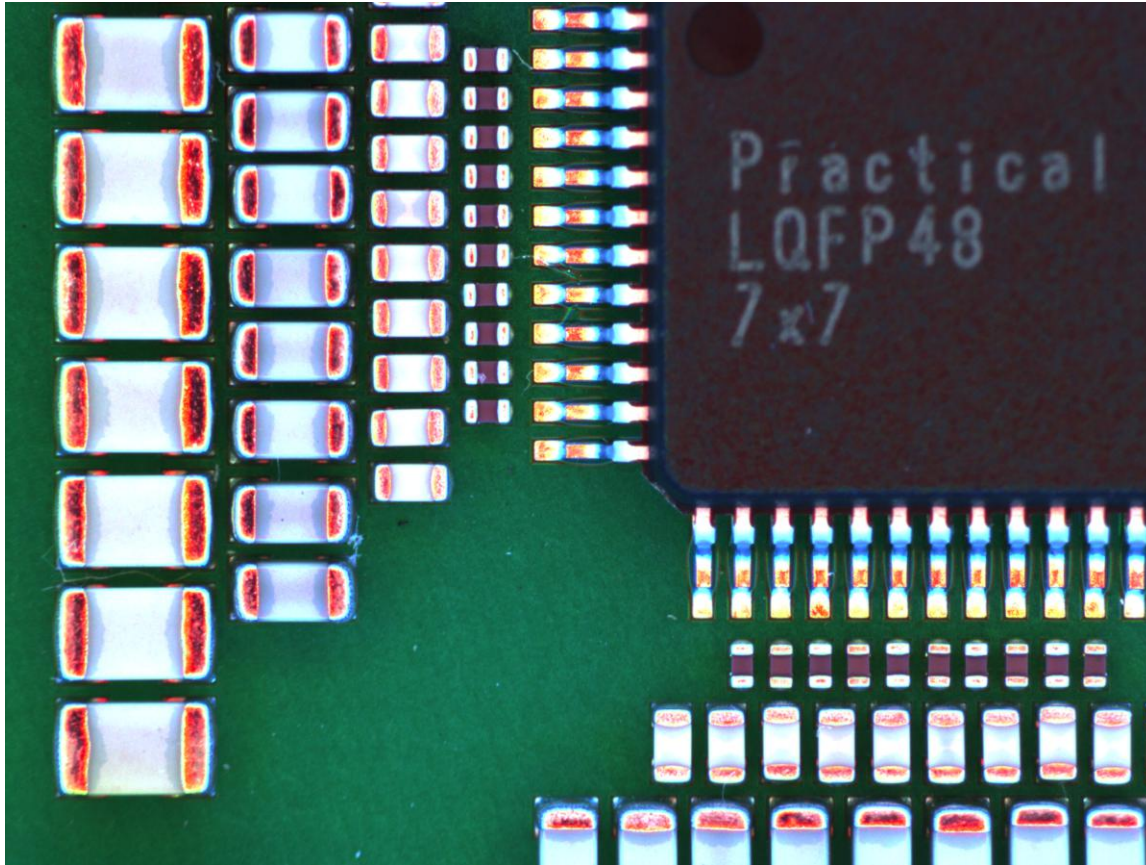
<b>Inspection principle</b>	color vector boundary measurement method
<b>PCB Spec</b>	PCB Size (mm): 50*50-400*350mm; PCB Thickness(mm): 0.6~5.0mm; Weight(kg): <5kg . PCB Component Height: above <10mm,below<30mm Detection range of solder paste height:10-300um PCB Warpage: <3mm
<b>Vision System Configuration</b>	Camera:5.3M pixels ---CCD digital high-speed industrial camera Brand: IDS (Germany) Camera lens: Double lens LED Qty: 6 light source Physical resolution: 12um FOV: 31mm
<b>Inspection speed</b>	0.3 S/FOV
<b>Machine structure and precision</b>	cast iron components + C4 grade ball screw + P-class linear slide + AC servo; Repeat positioning accuracy: $\pm 3\mu\text{m}$
<b>PCB loading</b>	L to R OR R- L (option), $900 \pm 20\text{mm}$
<b>Online PC</b>	Yes (supports visual programming and production status monitoring)
<b>Air and power supply</b>	0.35-0.55 Mpa; 5L min (max). 220V ~ 50Hz; 1000VA (maximum); grounding
<b>Equipment size and weight</b>	630(W)x1620(D)x1500mm(H); 1300kg
<b>Computer host, monitor</b>	i7 CPU 8G 1TB, Windows 7,64 bit, 22' LCD ( 1920X1080 ) ,
<b>Barcode scanning function</b>	Camera direct scanning , external bar code gun (option)



- Shadow part of the error ratio calculation: $0.006/0.03/2*100=10\%$
- 0402 components: $0.6*0.5\text{mm}$   
Shadow part of the calculation: $0.1*0.6\text{mm}$







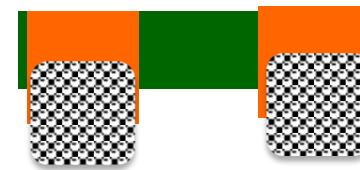
1, 4.0 industry: smaller and smaller SMT components, more and more dense pin pitch ... beyond the human eye can recognize the ability.

2, 0201 and 01005 components: resulting in artificial visual loss rate as high as 98%, rework scrap rate as high as 30% or more

3, High rework costs and difficulty: QFP, PLCC, BGA and other solder joints hidden in the body under the components,.

4, High labor cost: industrial upgrading and transformation of the industry

- The center of the printed solder paste is outside the process area
- Caused empty welding, side stand, missing pieces, short circuit and so on



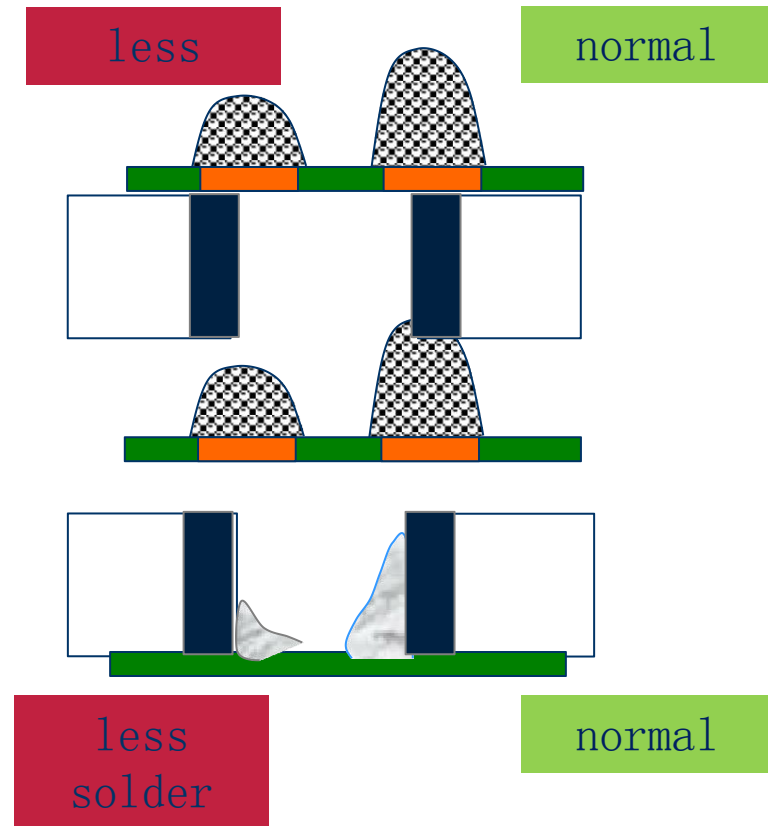
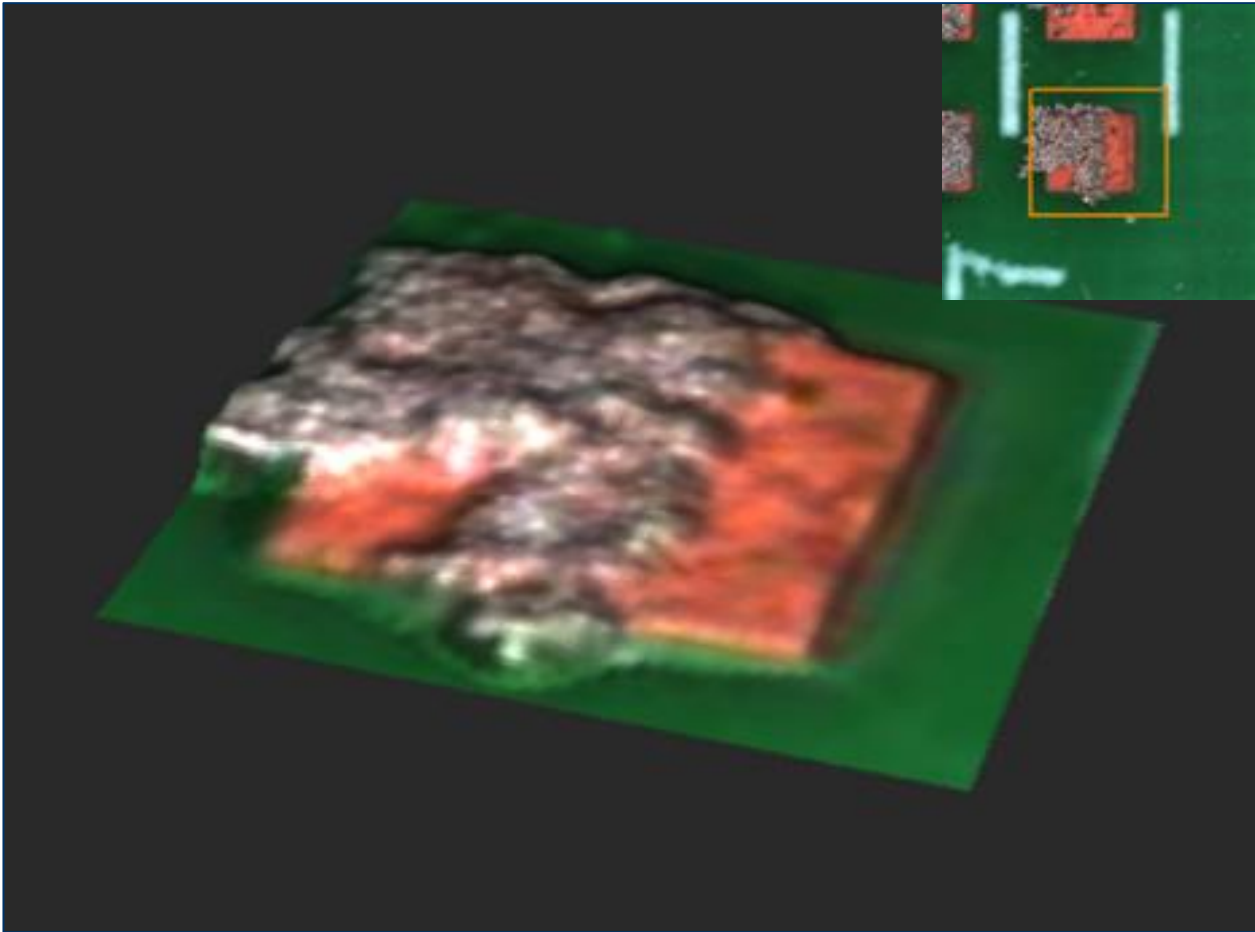
Printing  
Offset



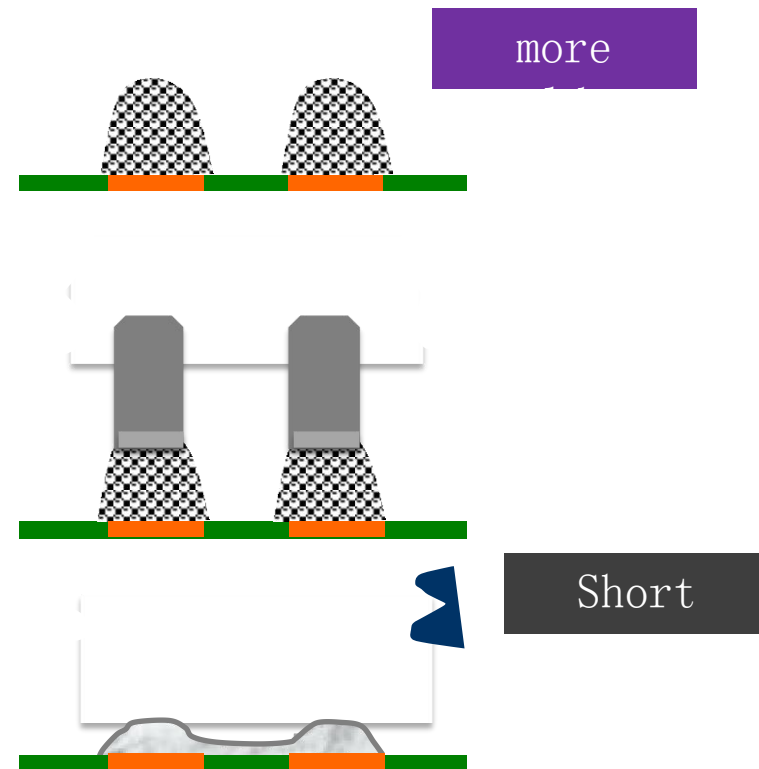
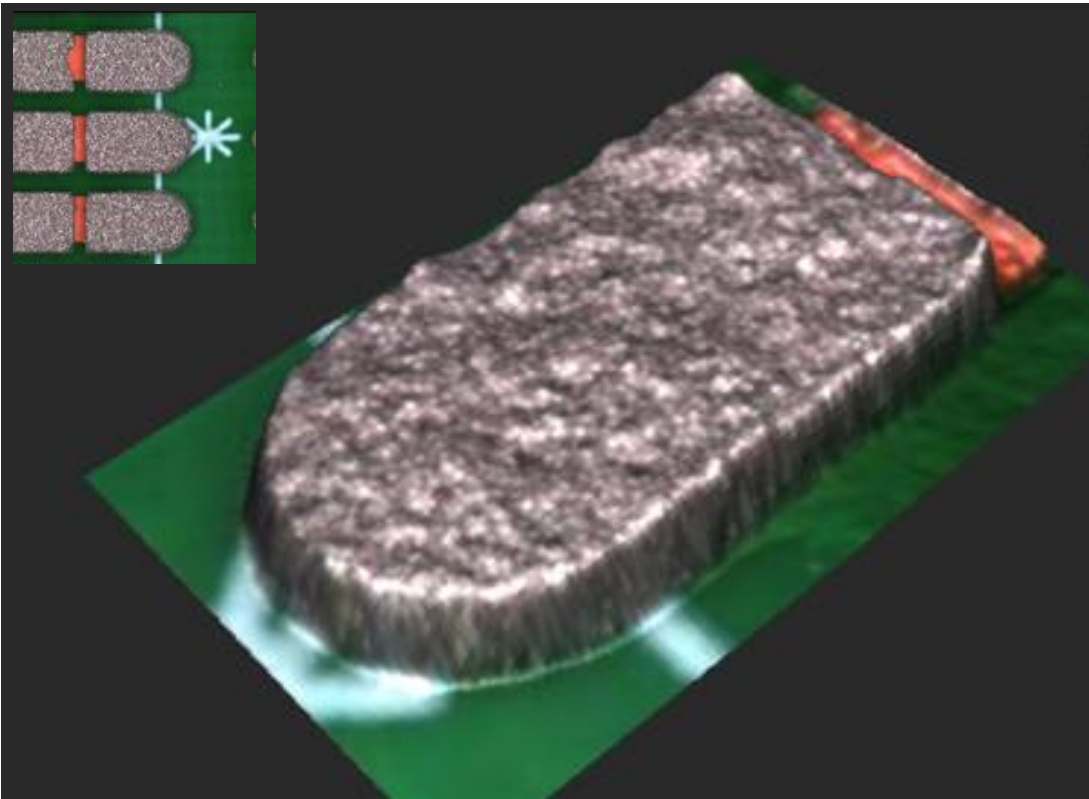
Mounting  
Offset



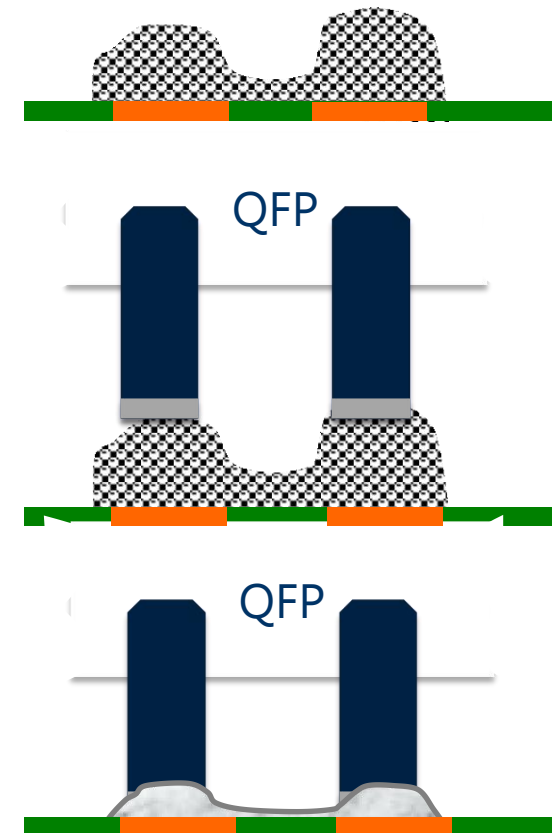
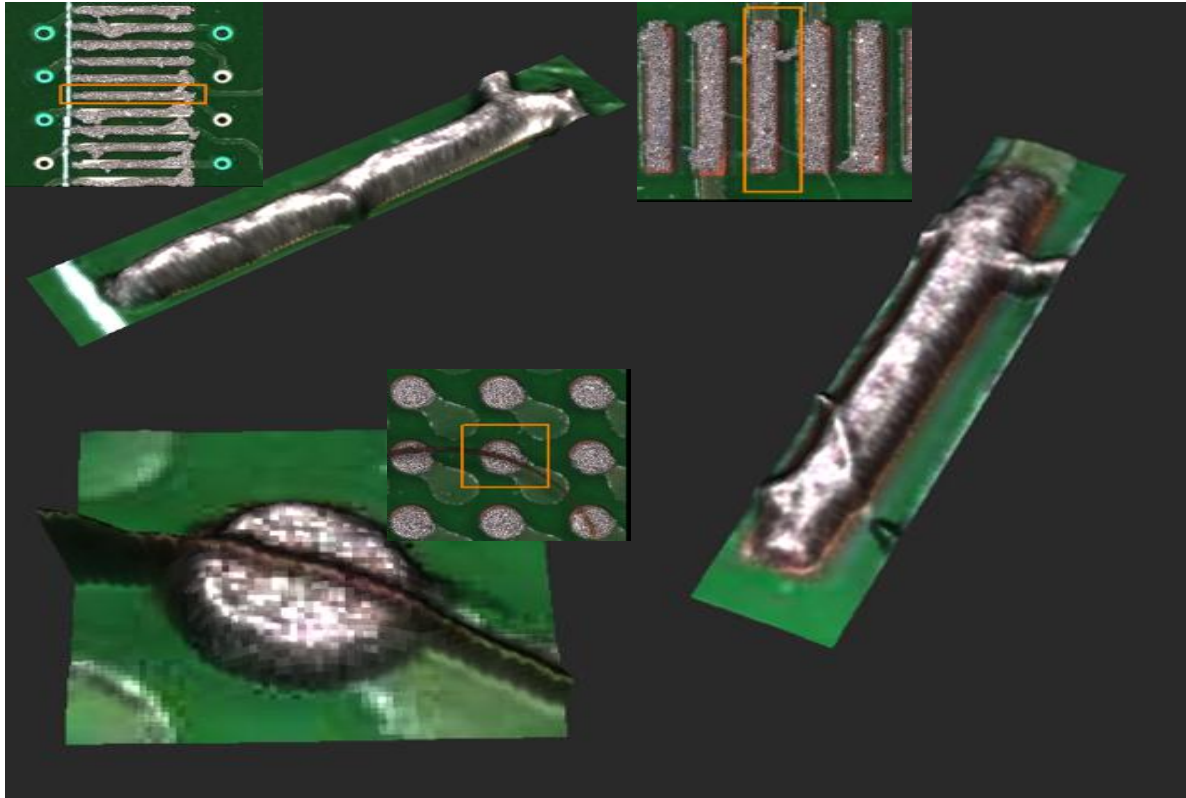
- The amount of tin is less than the lower limit of the process setting
- Caused empty welding, bad weld



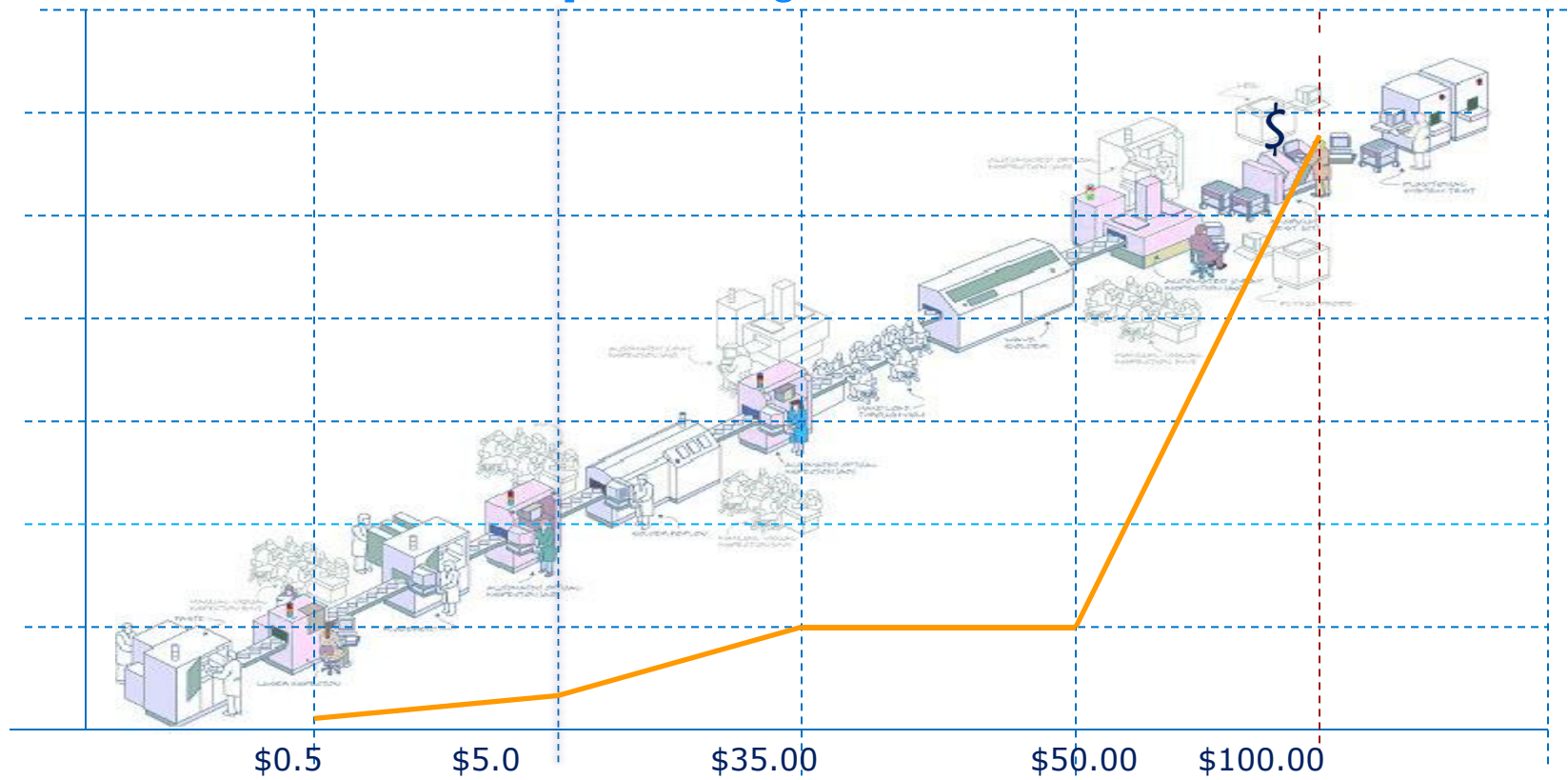
- The amount of tin is higher than the upper limit of the process definitio
- Caused short circuit, tombstone and other bad

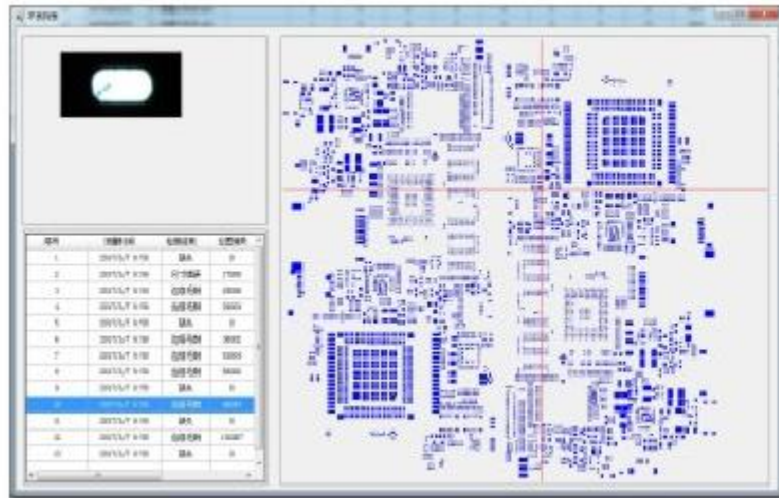


- There are solder paste connections between the two adjacent Pad
- Caused short circuit

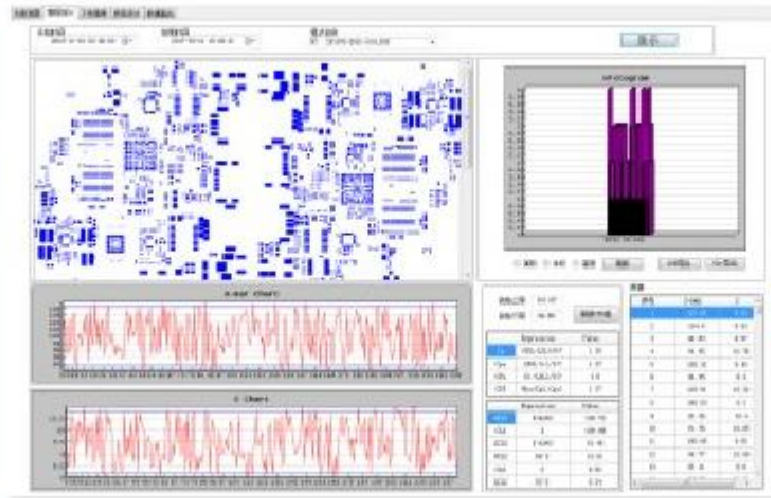


The lowest cost of rework to find bad in the solder paste printing processing

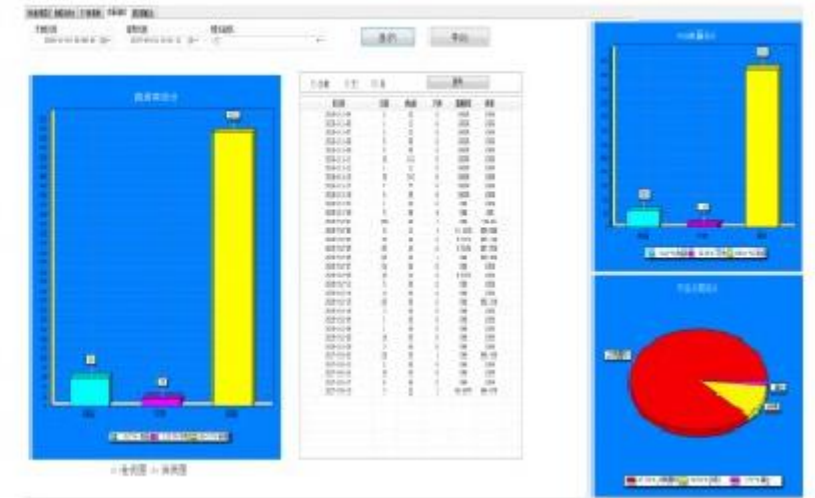




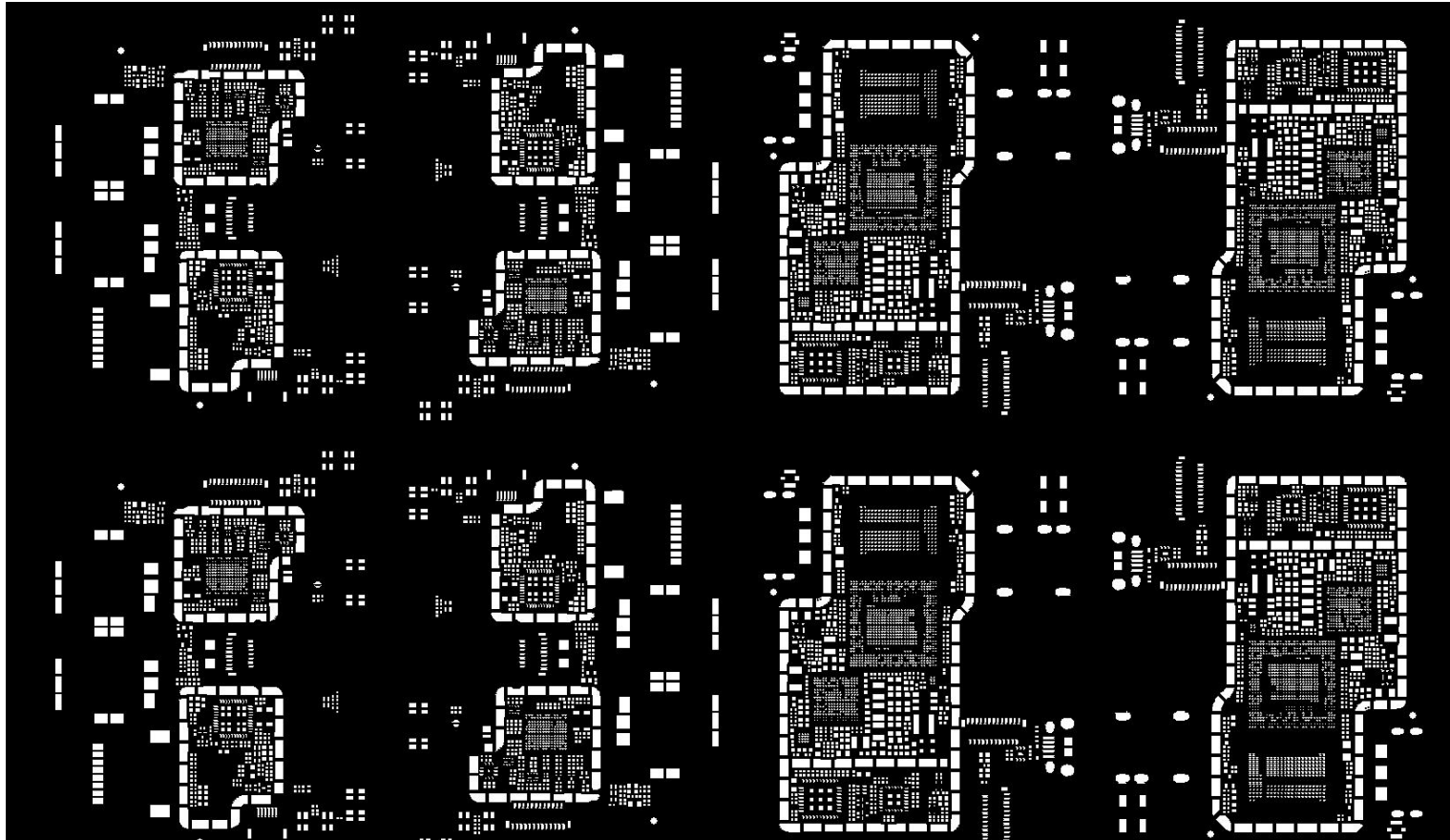
Data statistics 1



Data statistics 2



Data statistics 3



**GERBER, identification, and calculation**

**BAD-MARK function:**

**To advance notice mounter to enhance the placement quality and efficiency!**

# Specification of SH8650

NO	Equipment system	project	specification
1	The visual part	Detection principle	color vector boundary measurement method
		Industrial CCD camera	5.3M pixels
		resolution	12um
		Brand:	IDS (Germany)
		Camera lens	Double lens
		FOV	31mm
		LED Qty	6 light source
2	The mechanical part	Frame structure	Integrated cast iron frame with long life and high stability
		Orbital patterns	monorail
		PCB board size (length * width)	50*50-400*350mm
		X-y institutions	The detection head moves in the X-axis and Y-axis direction
			The substrate does not move in the X-axis and Y-axis direction.
		Fixed guide edge	Front guide fixing
		Guide width adjustment mode	Automatic, manual, two modes
		PCB positioning and clamping method	Edge positioning and clamping
		Guide rail height	900 + 20 mm
		PCB process margin width	3 mm
		PCB transmission direction	R->L or L-> R

3	Software part	System software operating platform	Windows 7 64-bit professional
		Software language	Chinese/English
		Programming software	Gerber (rs-274x, RS274D), CAD
		Programming time	< 5 minutes
		Program time	< 5 minutes
		In line of time	< 3 minutes
		Makeup application	Easy to make jigsaw board (including yin-yang board)
		Programming mode, data input type	SPI program available steel mesh file, Gerber (RS 274X, RS274D format); You can also manually add a window maker
		System in the diagnosis of	The standard configuration
		Off-line programming software	YES
		Ease of operation	The interface is very friendly, WINDOWS style, easy to operate
		SPC data acquisition and analysis & process monitoring software	Standard SPC
		Network technical requirements	Support TCP/IP protocol, picture instant transmission, no impact on the use
4	Computer part	Computer type	High performance computer
		The CPU	Intel i7
		Memory capacity	8 GB
		Hard drive capacity	1 T
		The operating system	Windows7 64-bit professional
		display	22" LCD
		Input device	The Mouse, the rid_device_info_keyboard

# Specification of SH8650

5	<b>The machine information</b>	The equipment size	630(W)x1620(D)x1500mm(H)
		Gas supply requirements	0.33 ~ 0.55 mpa
		Weight (KG)	1300 kg
		The power supply	220V ~ 50Hz; 1000VA (maximum)
		Power consumption (start/normal)	Start: 2.5kw/normal , operation: 2kw
		Work pressure	5 l/min
		Ground bearing requirements	450 kg/m <sup>2</sup>
		Grounding resistance requirement	Ground wire
		Standard SMEMA interface	YES
		Safety protection system	It has perfect safety indication and interlock system
6	<b>Other projects</b>	Barcode scanning function	Optional item; External high speed barcode device can be equipped with the function of reading mother board and child board
		Automatic/manual detection	Both models are available
		Technical data	Equipped with complete technical, operation and maintenance manuals (including electronic files) and software installation disk
		Software upgrade service	Can provide permanent, free, software upgrade services.

CUSTOMER SCENE



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