## I.C.T DIP Online AOI AI-4026(Before THT Soldering)

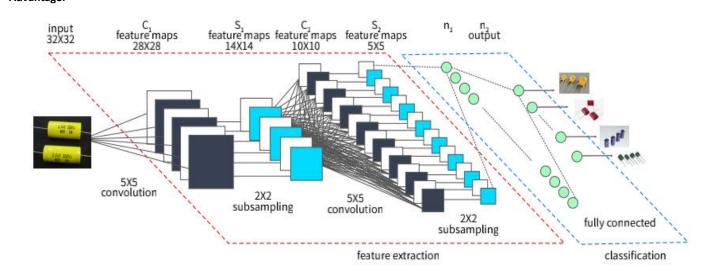


I.C.T DIP AOI captures board image in real time by high precision color industrial camera. Adopt Convolution Neural Network (CNN) algorithm to process images. Judge defects of components intelligently.

#### Features:

- 1. On-line PCBA AOI for plug-in before soldering.
- 2. High inspection rate and low false alarm rate, automatically check color ring resistor, capacitor, diode, socket, etc.
- 3. Defect type: wrong part, missing part, reverse polarity and other defects of DIP element.
- 4. Spanning erection without change of production line.
- 5. Simplified programming flow, very simple interface. Support batch modifying parameters with one-key.
- 6. Centralized control. Interconnection between multiple equipment.
- 7. Real-time inspection without stopping the board.
- 8. Easy to move, adjustable height and width.
- 9. Locate defects quickly and can control production line.
- 10. PCBA dimensions: Maximum 400\*300mm (12MP) / Maximum 520\*380mm (31MP) Multiple selectable options.
- 11. Data is traceable. Support SPC alarm, LOG automatic collecting and storage function, NG warning/alarm function, Remote programming&debugging.

# Advantage:

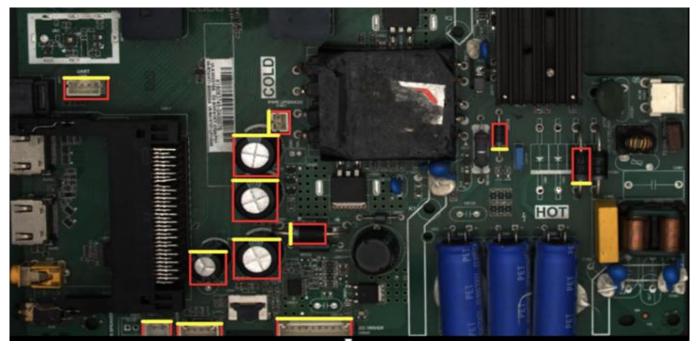


#### **Deep Learning Algorithm**

I.C.T AOI by applying deep learning algorithm, big data optimization and intelligent minimalist programming in industrial inspection, I.C.T enables intelligent judgment by one-click automatic identification of components and solder joints, thus addressing the two major pain points of traditional algorithms, namely, long programming time and high false alarm rate.

Full SMT Factory Solution Partner





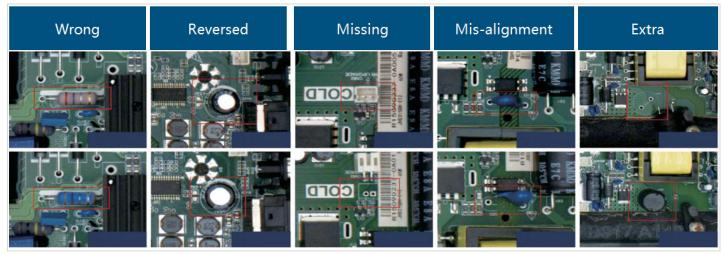
## Flexible procedures

1. Intelligent algorithm: Automatically check color ring resistor, capacitor, diode, socket, etc.

2. Online/Offline programming: Optimize and adjust equipment parameters without stopping production line.

- 3. Easily operate: 10-20min programming time and 10-15min debugging time.
- 4. Quick operation: Short changeover time. Files of existing formats can be called directly.

5. Audible alarm: Prompt item number, wrong device and type.



#### **Strong Intelligent Inspection Capability**

1. Strong feature fuzzy identification capability, able to inspect defect of color ring resistor.

2. Effectively inspect polarity without being interfered by silkscreen on board and change of characters on device.

3. Super strong same color distinguishing ability, effectively identify missing parts and reverse polarity of black devices on black board, black

feature on black devices, white socket and jumper on white board and thermistor on green board.

4. Excellent generalization ability.



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## **Quick Inspection Speed**

1. Flexibly respond to high capacity and situation with/without fixture.

- 2. Online inspection. Inspection time is not influenced by line speed(up to 1.8m/min)
- 3. Inspection results can be obtained immediately upon board coming out of inspection equipment.



## **Multiple Inspection Modes**

- 1. Support multi-in-1 board inspection.
  - 2. Support mixed board inspection.
- 3. Support mixed material inspection.
- 4. Support rotation identification of multiple angles and multiple positions.



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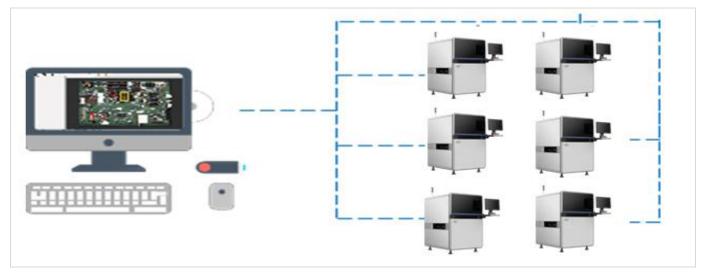
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### **MES System Data Report**

1. Camera automatically reads code (bar code and QR code).

2. Complete data, including overall statistic data and all inspection information of each board inspected.

3. Support one-key export, which is convenient for traceback. Data can be effectively applied in MES system.



#### **Centralized Management and flexible Service**

1. Support remote programming, debugging and management. Save changeover time. Support one-to-many judgment.

2. Remote regulation, centralized management. Reduce suspension of work. Enhance production efficiency.

3. Remote off-line programming, which will not affected inspection.

4. Remote support. Quick response and maintenance.

5. Multi-judgment work station realizes one-to-many judgment.

Production Line Control Box	NG Board Tracker				
Production Line Control Box	NG Board LED Tracker				
Automatic/manual control of production line start and pause, forward	Quick locate position of NG board by LED lights to enhance repair				
and reverse, ensure timely repair of defects.	efficiency.				

## Option:



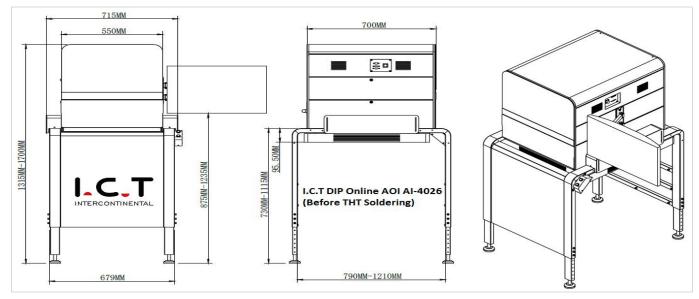
## Specification:

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Model	I.C.T DIP Online AOI AI-4026(Before THT Soldering)	I.C.T DIP Online AOI AI-4026L(Before THT Soldering)					
FOV	400*300mm	520*380mm					
Resolution	90um	80um					
Camera	12M	31M					
Light	W light source	W+Strip light, 4 sides					
Inspection Algorithm	CNN, Color contrast, Outline recognition, Offset inspecti	on, Template matching, Character comparison, OCR, etc.					
Inspection Item		t, Broken, Extra, Foreignmaterial, Stained, etc. ional), Mixed material inspection, Panel inspection.					
Mixing PCB inspection	Support calling program automatically.						
PCB Size	50*50mm~400*300mm	50*50mm~520*380mm					
Operation System	Ubuntu 18.04 LTS 64bit Remote control, remote assistance, CAD file import and user-defined model training						
PC	CPU: Intel i5 Display card: NVIDIA GTX1050Ti Memory: 8G DDR, 256G SSD+2T Mechanical Hard Disk Network: 1000M Wired Network Card	CPU: Intel i7 Display card: NVIDIA GTX1050Ti Memory: 8G DDR, 256G SSD+2T Mechanical Hard Disk Network: 1000M Wired Network Card					
Display	23.8 inch F	-HD display					
Data output	Autogenerated sta	atistic analysis SPC					
Special function	Automatic search of elements and quick programming						
Power	AC220 50/60Hz, 5A						
Rated power	200W						
Compressed Air	0.4~0.6Mpa						
Communication	SME	EMA					
Weight	120Kg						
Dimension	L715*W760~1210*H1315~1700mm						

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#### Dimension:



Thanks for choosing I.C.T. I.C.T looks forward to win-win cooperation. Thanks.

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