



## AI Algorithm Offline X Ray Counter Stickers 800W with Data Barcode

Our Product Introduction

for more products please visit us on [bgaxraymachine.com](http://bgaxraymachine.com)

### Basic Information

- Place of Origin: China
- Brand Name: WDS
- Certification: CE
- Model Number: DS3000
- Minimum Order Quantity: 1 UNIT
- Packaging Details: Wooden case
- Delivery Time: 8-15 working days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 150 UNITS PER MONTH



### Product Specification

- Model: DS-3000
- Total Power: 800W
- Equipment Size: 908\*1335\*1968mm
- Weight: 1000kg
- Supply Voltage: 220V 50/60Hz
- Highlight: AI Algorithm X Ray Counter,  
Offline X Ray Counter,  
800W Smt Reel X Ray Counter



### More Images



### DS3000 Offline X-ray counter machine

High detection accuracy:

Based on the AI intelligent recognition algorithm, the detection accuracy is excellent. The calculation accuracy of conventional devices reaches more than 99.99%. It uses high-definition cameras and self-developed intelligent algorithms to achieve high code scanning recognition rate.

2. Strong detection adaptability:

Suitable for various types of chip components, SMD devices; high product compatibility, can quickly and accurately detect materials such as 7-15-inch trays (can be upgraded to 17-inch YJedec Tray/IC moisture-sensitive packages; material label error-proofing mechanism, Material tray induction recognition, real-time docking with the printer, pick up any tray of materials and print the tray material information.

3. The detection is easy to use:

Automatic statistical output of ordering data supports docking with ERP, MES and NMS systems; the design is based on ergonomic mechanics and can be operated in a sitting position. The monitor is kept at the same height as the human eye, protecting the cervical spine, occupying a small space and reducing working space; the software operation is user-friendly, Guided menu structure makes it easy for employees to operate.

4. High detection efficiency:

The detection speed is 8-10 seconds/single plate, which is highly efficient and can save multiple labors, truly reducing manpower and increasing efficiency.

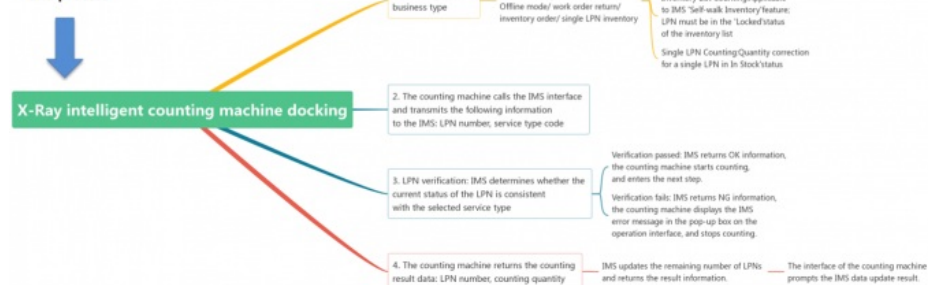
5. Equipment related qualifications:

This product has obtained an exemption certificate, and radiation safety is guaranteed. At the same time, users can be exempted from occupational health examinations for operators, participation in the "Radiation Safety and Protection Assessment of Nuclear Technology Utilization" certification and employment, and equipment placement in specific areas.



- Usage requirements and application scenarios**
1. After the X-ray intelligent counting machine completes direct counting, the result data of the counting will be uploaded to the digital control system for update.
  2. Main application scenarios: ① Work order return; ② Single LPN inventory; ③ Initial inventory / Re-inventory.

#### Docking plan and process



P/N: 803414260 QTY: 48 PCS  
 RID: SLN220718000032  
 D/C: 2228 L/N: 2228  
 Vendor: 苏州 科技有限公司  
 Name: XLKRNT4850C2D1-A  
 Desc: 500\*352\*89mm, ADC12/A380.

SUPLET

QR code content

V1016&2228&2228&803414260  
 &48&2022710&SLN220718000032&M00773

line number	field name	Field type	paragraph separator
①	Supplier Code	character	&
②	D/C	character	&
③	Production Batch	character	&
④	Material Code	character	&
⑤	Reel ID Count	character	&
⑥	Production Date	character	&
⑦	Reel ID	character	&
⑧	Manufacturer Code	character	&

Analysis details

1. The equipment can be used without connecting to the digital control system to achieve direct counting in offline mode.

2. Offline mode can realize fully automatic counting, automatic label printing, and automatic generation of point reports.

### Offline mode label printing rules

Serial number	Tag meaning	Description
①	barcode	material quantity
②	quantity	counting quantity
③	number	the station of the tray
④	time	counting time

### DS-3000 Intelligent Counting Machine

X-ray source		Flat panel detector		Counting parameters		Equipment Specifications	
Tube voltage	80KV	Detector category	Non-silicon 17-inch tablet	Maximum size of tray	15inch	Total power	800W
Tube current	0.2mA	Pixel matrix	3072*3072pixels	Maximum thickness	8mm	Equipment size	908mm*1335mm*1968mm
Cooling method	air cooling	Pixel size	140μm	Compatible mini component size	Imperial 01005	Equipment weight	About 800KG
Focus size	35μm	Image size	430mm*430mm	Counting speed	About 6-8s/4trays (7inches)	Supply voltage	220V 50-60Hz
X-ray radiation angle	30°	Detector size	470mm*470mm*35mm	Counting accuracy	99.99% (01005 example)		
radiation safety	< 1uSv/hr (international standards)	Drawing time	1s	Table size	430mm*430mm		
				Table load bearing	10KG		

Order 4 plates at a time.

Four cameras automatically scan codes and automatically upload to MES/ERP and other systems.

To be fool-proof, label which plate you take.

7 inch tray

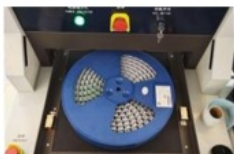
13/17 inch tray

Automatic code scanning

Manual complement

label printing

Counting one plate at a time



For labels that are damaged or unclear

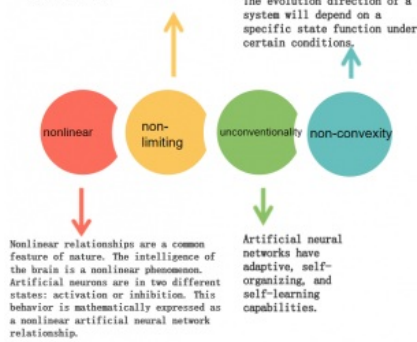




## 1. Software Neuron Algorithm

A neural network is usually composed of multiple neurons that are widely connected. The overall behavior of a system not only depends on the characteristics of a single neuron, but may also be mainly determined by the interactions and interconnections between units.

The evolution direction of a system will depend on a specific state function under certain conditions.

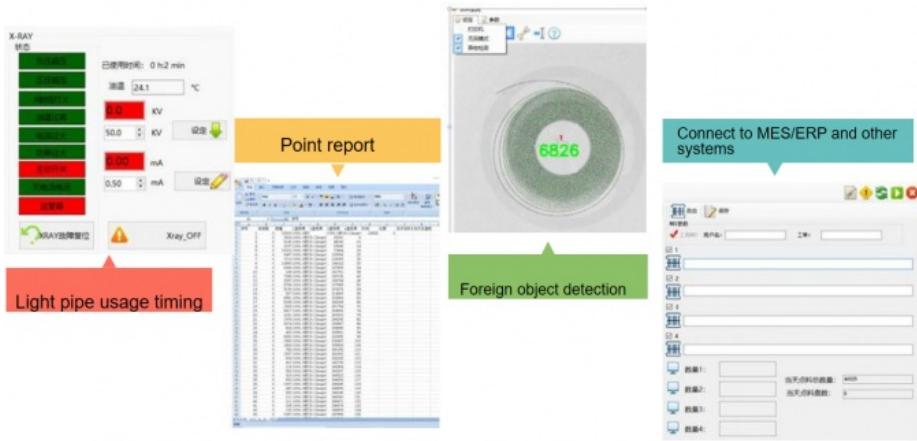


## 2. Artificial Intelligence Deep Learning Algorithm

1. The ordering software adopts artificial intelligence deep learning algorithm.
2. There is no need to bind components and algorithms.
3. Instead, use AI to automatically identify components and automatically apply algorithms.
4. The algorithm can learn the clicked component data like:
  - ① Length-to-width ratio;
  - ② The angle of each corner of the component;
  - ③ The slope from inside to outside components;
  - ④ The deformation rules of component images from inside to outside, etc.
 As components are counted more and more times, the results of counting materials become more and more accurate. When encountering similar components and larger material trays, we can easily handle them.

## 3. Intelligent database

1. The equipment software adopts machine automatic learning algorithm.
2. Analyze a large number of data records and automatically update and tune them to the database.
3. Over time, the accuracy of equipment ordering will become closer and closer to 100%.
4. The coverage of component types will also become wider and wider.



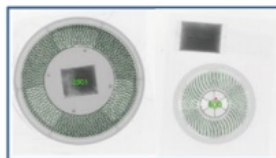
## 3-3 Speed and accuracy

1. The X-RAY intelligent counting machine can cooperate with SMT tail material counting and improve intelligent warehousing;
2. It can count four trays of materials at the same time, and it only takes 8S at the fastest. A single device can save 5-7 people in labor;
3. Make tailings counting and material warehousing more efficient, more secure, and more digitally managed;
4. For unconventional materials that cannot be accurately identified, model algorithm optimization updates will be provided, and optimization can be completed within 24 hours.
5. Up to now, the ordering time and accuracy of materials of various sizes are as follows:

Name	Material Dimensions	Accuracy	Name	Material Dimensions	Accuracy	Name	Material Dimensions	Accuracy	Name	Material Dimensions	Accuracy
Resistor	01005	99.95%	Capacitor	01005	99.99%	Inductor	CD32	99.99%	MOS	2N7000	100.00%
	0201	99.99%		0201	99.99%		CD43	99.99%		2N7002	100.00%
	0402	100.00%		0402	100.00%		CD52	100.00%		2N7004	100.00%
	0603	100.00%		0603	100.00%		CD54	100.00%		BGA	100.00%
	0805	100.00%		0805	100.00%		CD73	100.00%	IC	QFN	100.00%
	1206	100.00%		1206	100.00%		CD75	100.00%	QFP	100.00%	
	1210	99.99%		1210	100.00%		CD104	100.00%	Crystal Oscillator	4025B	100.00%
	1812	99.99%		1608	100.00%		CD105	100.00%		2016B	100.00%
	2010	99.99%		2125	100.00%		M1	100.00%		1612B	99.99%
	2512	99.99%		3612	100.00%		M2	100.00%		HC-49	99.99%
Tantalum Capacitor or	TANT 4525	100.00%	Transistor	SOT 23	100.00%	Diode	M4	100.00%	Optocoupler		99.99%
	TANT 6640	100.00%		SOT 89	100.00%		M5	100.00%		Switch	99.99%
	TATN 7343	100.00%		SOT 363	100.00%		4148	100.00%	Terminal Block	TATN 7343	100.00%



Automatic ordering of SMD chip components such as capacitors, resistors, inductors, diodes, transistors, etc.



Automatic counting of materials when full (moisture-proof bag with desiccant)



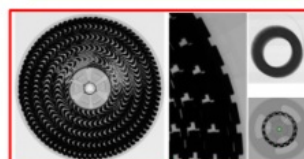
Automatic counting of small quantities of materials at the end of the plate



Automatic ordering of bulk materials



Jedec Tray material automatic ordering



Due to the X-ray (2D imaging) detection principle, stacked or non-tiled materials cannot be counted. Currently, for the entire industry, materials such as ultracaps cannot be accurately counted by the X-ray counting machine.



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