

LY. GROUP. CHINA S7200 X-RAY Inspection Machine Specifications

Equipment Overview

Device Name:	X-RAY Inspection Machine	Equipment Model:	S-7200
Manufacturer:	LY. GROUP. CHINA	Equipment Specifications:	90KV
Place of Origin:	CHINA	Equipment Status:	all-new

The system of this series of equipment mainly consists of seven major parts: micro-focus X-ray source, image imaging unit, computer image processing system, mechanical system, electrical control system, safety protection system, and warning system. It integrates modern non-destructive testing, computer software technology, image acquisition and processing technology, mechanical transmission technology, and AI algorithms, covering four major technical areas: optical, mechanical, electrical, and algorithmic. By utilizing the differences in X-ray absorption caused by different materials or thicknesses, it images the internal structure of objects and then conducts internal defect detection. It can provide real-time observation of high-definition inspection images of products, determining the presence, type, and level of internal defects. Simultaneously, based on customized user requirements, the AI algorithm is capable of automatic defect determination, ensuring accuracy and objectivity in assessment.

Equipment Parameters

Classification	Item	Type	Parameters and Functions
Hardware Configuration	X-ray Source	Brand Type	HAMAMATSU, Hamamatsu, Japan, Closed Microfocus X-ray Source
		Voltage Current	90kv, 10-200uA
		Focus Size	5 μ m
		Maxi Power	8W
	Imaging Unit	Brand Type	iRAY, Amorphous Silicon Flat Panel Detector
		Imaging Area	130mm×130mm
		Photosensitive Unit Size	85 μ m
		Pixel Matrix	1536×1536
		Resolution	5.8Lp/mm
		Tilt Angle	0-90° viewing angle (45° to the left and right)
		Image Frame Rate	20fps
		Magnification Ratio	Geometric magnification of 150 times
	Computer	Host Brand	Advantech Industrial Computer
		Industrial Computer Configuration	CPU:I5 6500 RAM:8G, HDD: 1TB

		Monitor	24" FHD LCD Display
	Loading Platform	Loading Area	520mm×445mm
		Maxi Inspection Area	520mm×445mm
		Motion Travel (Z-axis)	Detection Panel Z1=300mm, X-ray Source Z2=300mm
		Motion Travel (X-axis)	X axis=510mm, Y axis=405mm
		Maxi Sample Weight	10kg
		Movement Control Method	Joystick, Mouse, and Keyboard Tri-combination
	Navigation System	Configuration	Hikvision High Definition Camera
Software system	Software Introduction	Intellectual Property	Independently developed with proprietary software intellectual property.
	Software Functions	Automatic Image Setting	Recording position coordinates and parameter information of characteristic points
		Automatic Navigation Functionality	Facilitate quick movement to inspection points
		Calculation Feature	Capable of measuring bubbles in electronic/semiconductor products
		Algorithm Model	Customizable detection algorithm models based on requirements
		Location Editing Functionality	Easily achieve multi-point position detection
Machine parameters	Weight	about1250Kg	
	Power Supply	220V/50Hz	
	Maxi Power	2.0KW	
	Equipment Dimensions	1300mm(L) * 1320mm(W) * 1800mm(H)	
	Radiation Leakage Dose	<1 μ Sv/h	
X-Ray safety			<p>1. Radiation Leakage Dose:< 1μSv/h.</p> <p>2. The protective material of the casing is composed of a steel-lead-steel structure, and the front door window uses leaded glass for radiation protection.</p>

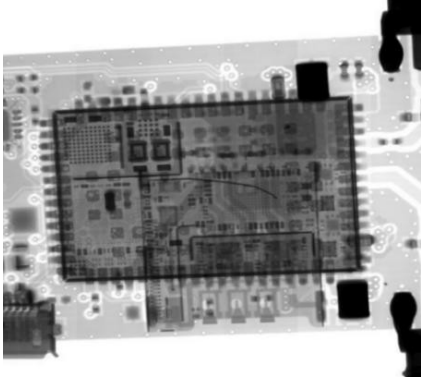

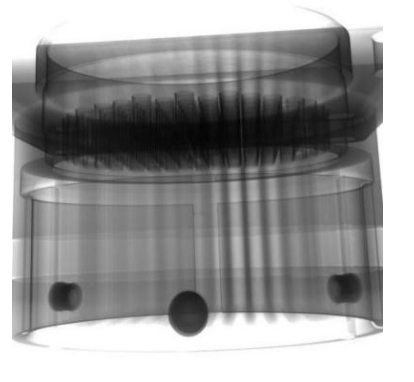
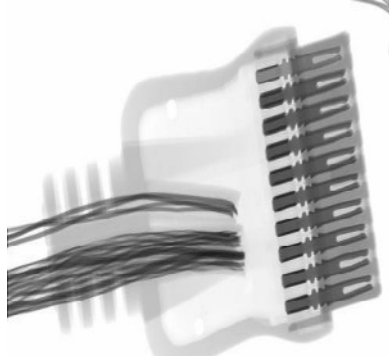

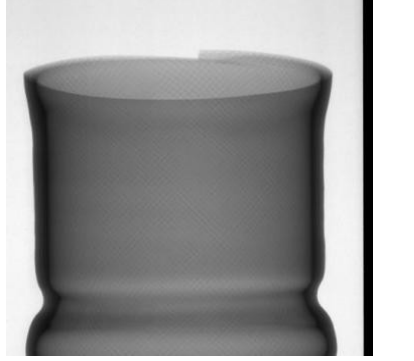
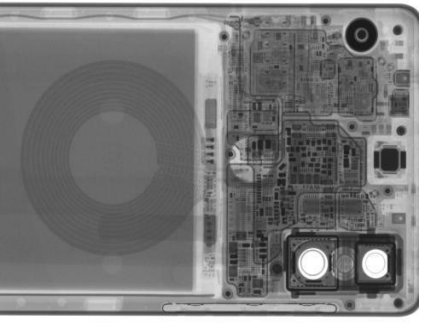
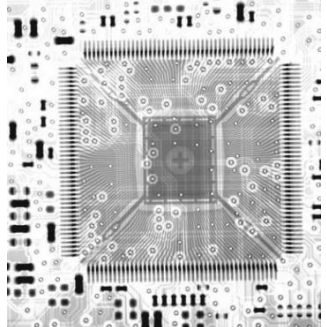
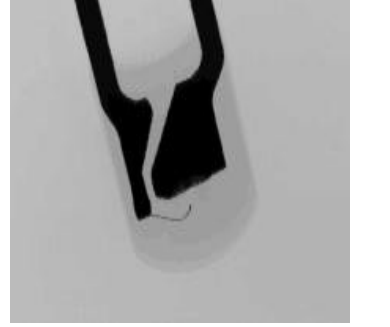
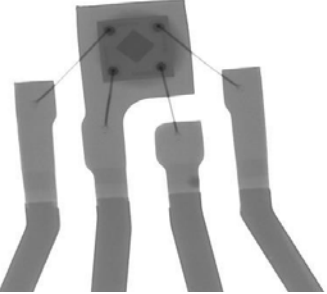
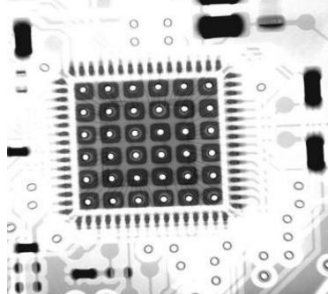
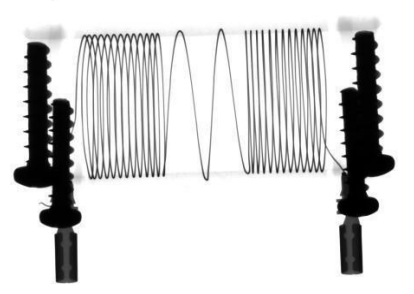
	3. Safety interlock feature: limit switches are installed at all door positions. When the door is opened, the X-ray source automatically cuts off power.
	4. Utilize status indicator lights to indicate the operational status of the X-ray source.
	5. The equipment has obtained the "Exemption Filing for Radioisotopes and Radiation Devices".

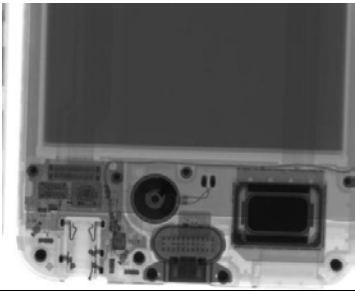

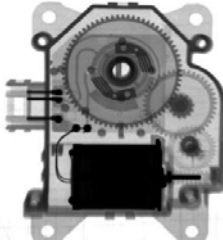
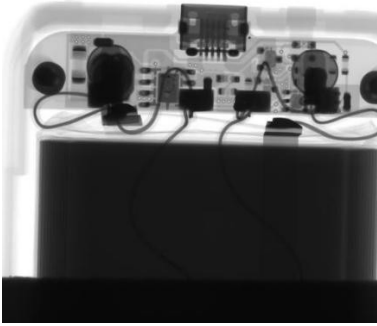
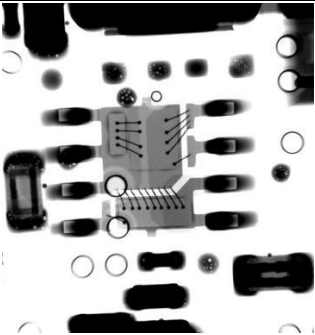
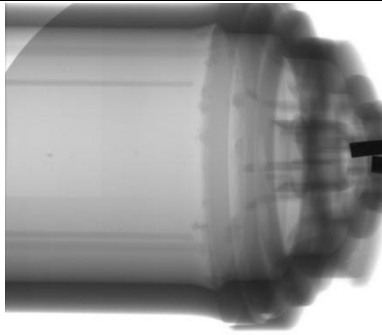
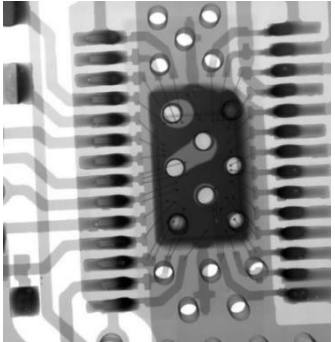
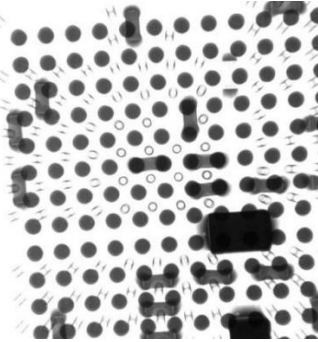
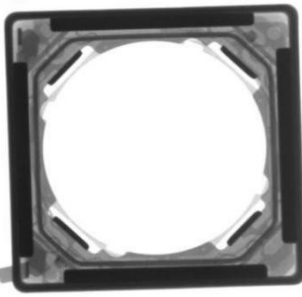
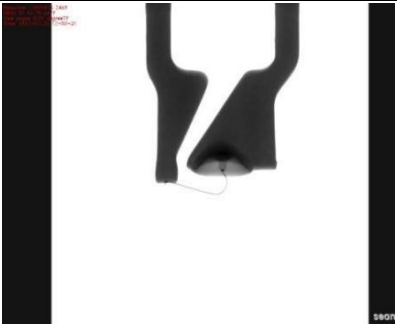
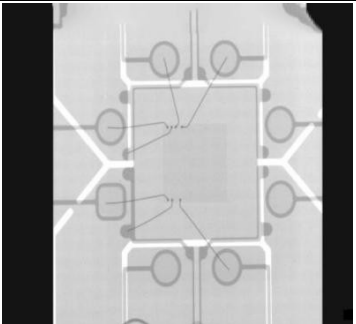
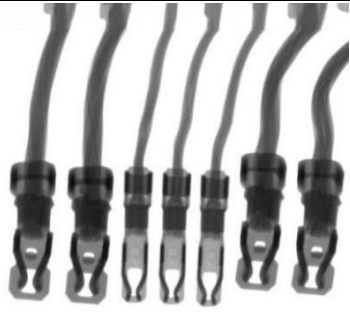
Configuration list

NO	Name	Quantity	Unit	Configuration Specifications
1	X-ray Source	1	SET	HAMAMATSU, Hamamatsu, Japan, Closed Microfocus X-ray Source 90KV
2	Imaging Unit	1	PCS	iRAY, Amorphous Silicon Flat Panel Detector 130mm ×130mm
3	Computer Host	1	PCS	Advantech Industrial Computer
4	Monitor	1	PCS	24-inch HD Monitor
5	Precision Control Components	1	SET	Googol Motion Control Card, Motor, etc
6	Lead Room and Motion Parts	1	SET	Independently Developed by LY
7	Software	1	SET	Independently Developed by LY

X-RAY application case

Shield cover chip	White light soldering iron tip	Plastic Products
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<p>UCB connector</p>	<p>Electronic cigarette (ceramic)</p>	<p>rubber tube</p>
		
<p>Xiaomi mobile phone</p>	<p>BGA chip</p>	<p>LED lamp beads</p>
		
<p>IC semiconductor</p>	<p>Memory chip</p>	<p>fuse</p>
		
<p>OPPO phone</p>	<p>Emerson Sensor</p>	<p>switch</p>

		
Walkie talkie	Percentage of tin hole filling	Water purifier (plastic bucket)
		
IC semiconductor	BGA chip soldering analysis	Apple camera module
		
Diode detection	IC gold wire detection	Wire speed connector
		
LED dock light bubble test	Thermal sensor	Diode capacitance
