

X-RAY PROFESSIONAL SUPPLIER



rmi 瑞茂光学

SemiStar Corp. ,the distributor in North America : sales@semistarcorp.com



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400 1015 159

Decoding the Unforeseeable Future

SemiStar Corp. ,the distributor in North America : sales@semistarcorp.com

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02

Products & Services

03 Qualification Reviews

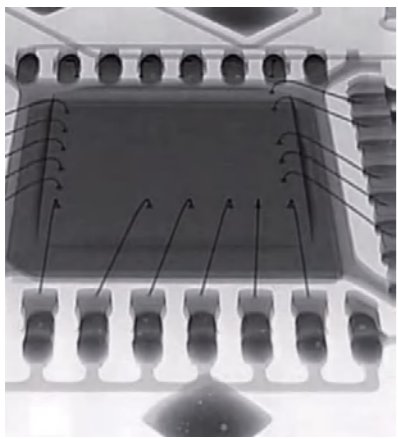
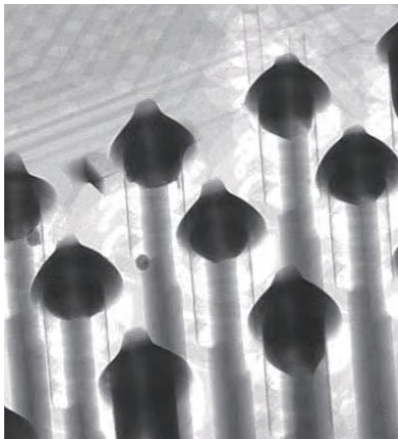
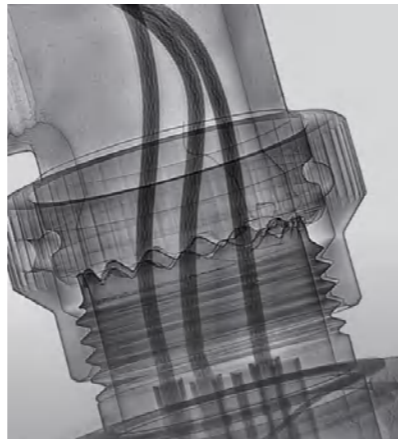
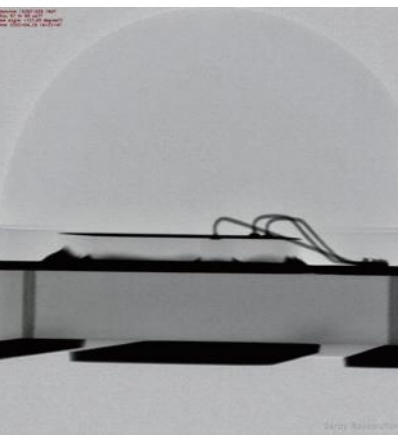
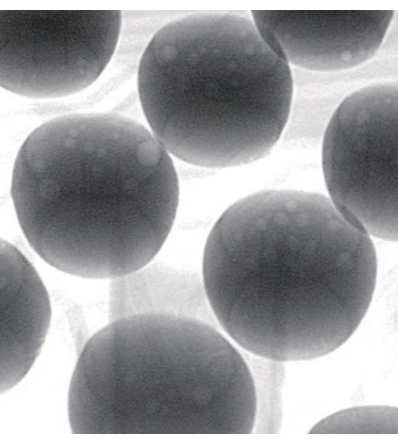
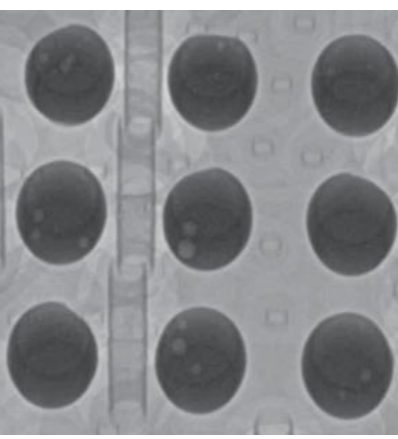
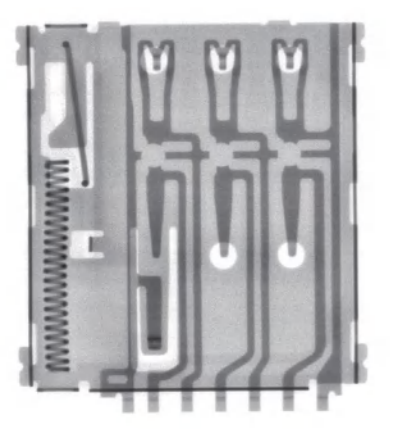
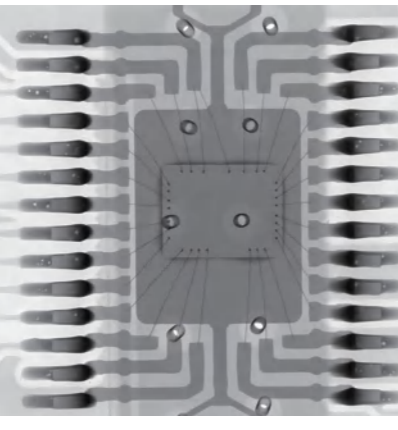

04 Product Reviews

05 Honorary Clients

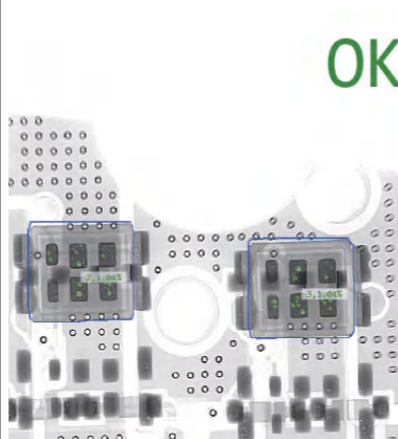
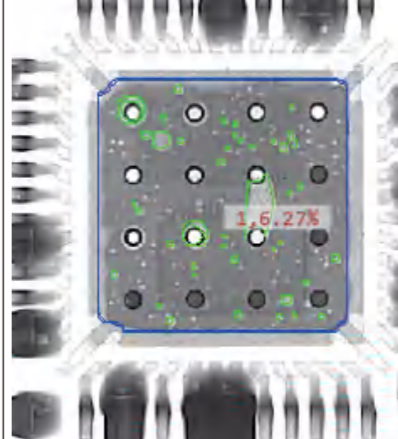

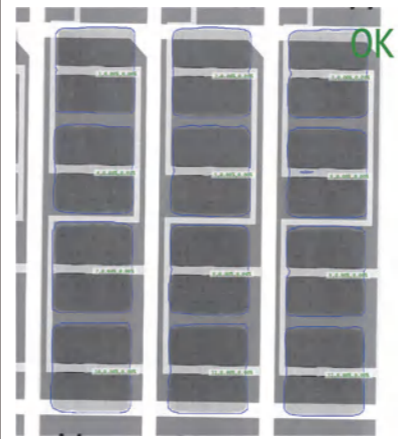
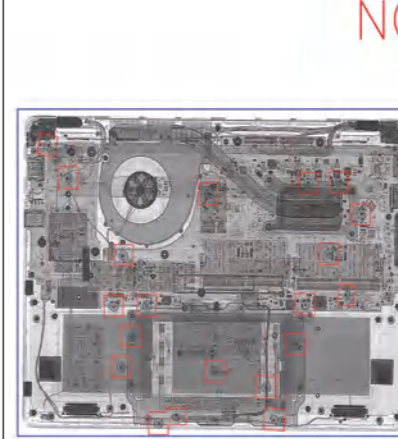
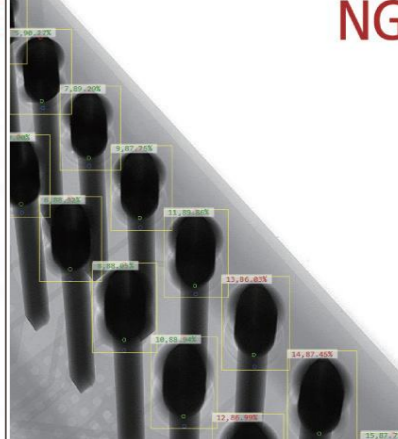
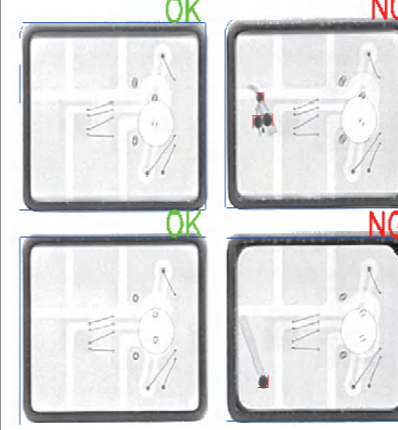
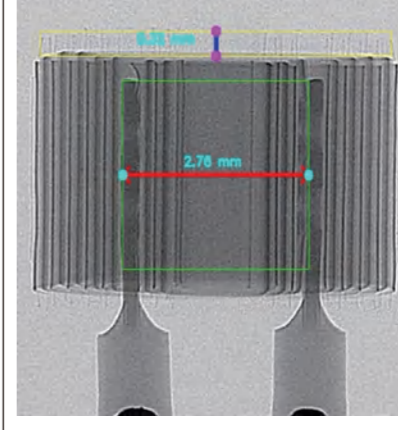
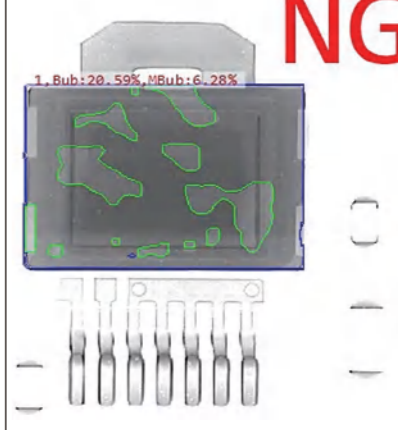
CONTENTS



X-Ray Inspection Images

IC WIRE	Via Hole	Aerospace Component
		
LED Bonding	BGA Voids	BGA solder ball
		
Coupler	IC	Connector
		






Automatic AI Algorithm Inspection Images

MOS Tube	PCB	Heat Sink
		
CPU	Battery	Through Hole
		
Sensor	Capacitor	PCB
		

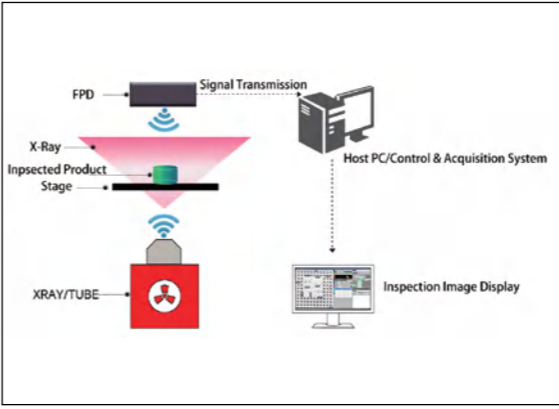
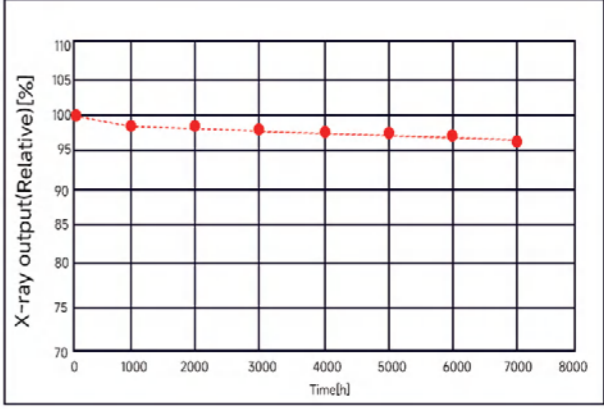
CT-3D Inspection Images

Nickel Sheet	Plastic Parts	Aluminum Alloy Castings
		
Plastic	Inductor	BGA
		
Capacitor	Metal Parts	PCBA
		

Quality Accessories

X-Ray Tube	Digital HD Flat Panel Detector
<p>Japan Hamamatsu</p>  <p>RMI X-Ray tube</p> 	
<p>RMI Opentube</p>  <p>Others</p> 	<p>The X-ray detector features real-time image acquisition and correction to deliver high-quality images. It is equipped with a passive cooling system and a built-in temperature sensor that displays the operating temperature in real time. Additionally, it offers multiple gain settings and supports combined PGA and Binning operating</p>

X-Ray Principle

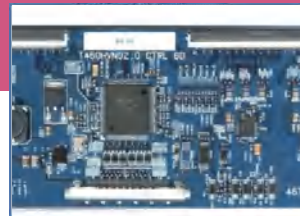
A Schematic diagram of the X-Ray working principle	A Schematic diagram of the X-Ray lifetime decay																		
	 <table border="1"> <caption>X-ray output (Relative) [%] vs Time [h]</caption> <thead> <tr> <th>Time [h]</th> <th>X-ray output (Relative) [%]</th> </tr> </thead> <tbody> <tr><td>0</td><td>100</td></tr> <tr><td>1000</td><td>98</td></tr> <tr><td>2000</td><td>98</td></tr> <tr><td>3000</td><td>98</td></tr> <tr><td>4000</td><td>98</td></tr> <tr><td>5000</td><td>98</td></tr> <tr><td>6000</td><td>98</td></tr> <tr><td>7000</td><td>98</td></tr> </tbody> </table>	Time [h]	X-ray output (Relative) [%]	0	100	1000	98	2000	98	3000	98	4000	98	5000	98	6000	98	7000	98
Time [h]	X-ray output (Relative) [%]																		
0	100																		
1000	98																		
2000	98																		
3000	98																		
4000	98																		
5000	98																		
6000	98																		
7000	98																		

Mini X-Ray Series

X-7100 (MINI) X-Ray Inspection System



Applications



PCBA



Circuit board



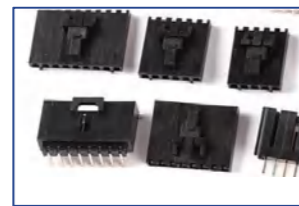
BGA



Electronic sensors



Hardware



Connector plugin



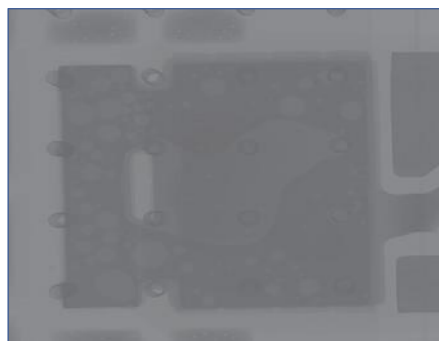
IGBT



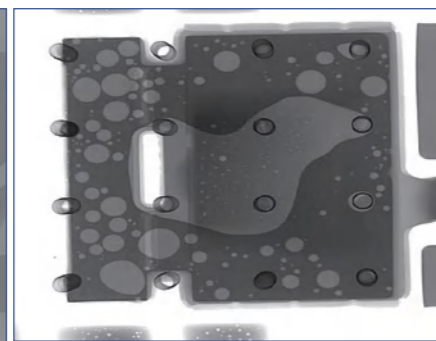
IC

Functional Advantage

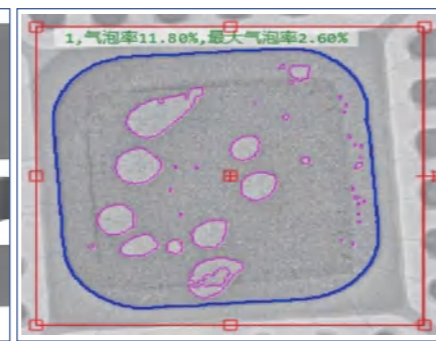
Advantageous Imaging Using Advanced AI Super-Resolution Algorithms



Peer image



RMI image



Voids ratio inspection

X-3000M X-Ray Desktop Inspection System



Technical Parameters

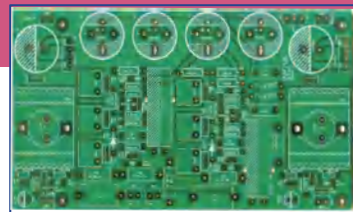
	Model	X-7100 MINI	X-3000M/E
Tube	Tube type	Enclosed type	Enclosed type
	Spatial resolution	5 μ m	5-7 μ m/10-15 μ m
	Tube voltage	90KV	90KV (Domestic) /80KV (Domestic)
	Tube current	200 μ A	200 μ A
	Image taking type	Flat-panel Digital	Flat-panel Digital
FPD	Imaging precision	85 μ m	85 μ m
	A/D density value	16bit (65536)	16bit (65536)
	Resolution	1536*1536px	1536*1536px
	Frame frequency	20 (FPS)	20 (FPS)
System	Optical/system magnification	250X/1000X	90X/70X / 1000X
	Operating system	WINDOWS 11	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W	AC110-220V 50-60HZ 300W
	Radiation safety test	<1 μ SV/H	<1 μ SV/H
Structure	Detector rotation angle	60°	/
	Platform electric upgrade distance	/	320mm
	Stage size	540*394mm	160*160mm
	Detection range	510*370mm	130*130mm
	CT (optional CBCT))	/	50mm*150mm
	Load-bearing	\leq 10kg	\leq 10kg
	Machine size	850*1360*2057mm(L*W*H)	504*735*915mm(L*W*H)
	Machine size (including monitor)	1350*1938*2057mm(L*W*H)	/
	Machine weight	870kg	150kg
	Stage movement	Automatic/Manual	Automatic/Manual

Universal X-Ray Series

X-7100

X-Ray Inspection System

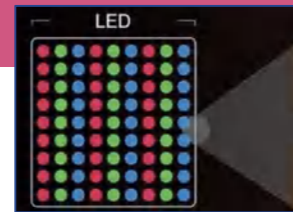
Applications



PCB



SIP



MINI LED package



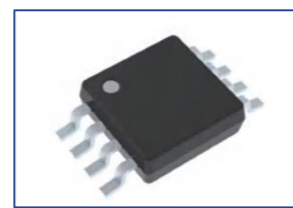
Electronic sensor



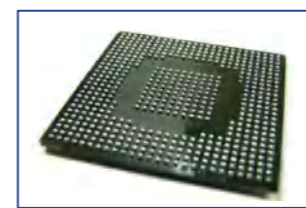
Battery protection board



Lithium battery



IGBT



BGA

Functional Advantage

Functions	Advantages
CNC Program: Automated batch inspection of different locations	Automatic X-ray tube ON/OFF control for batch sample inspection
Array Function: Automated batch inspection of samples with fixed positions and equal spacing	Equipped with a high-Stability, high-precision X-ray tube
Void Measurement: One-Key measurement of void size, void ratio, and wetting height	High-Resolution digital X-ray flat panel detector
Length and Width Measurement: Measure the length and width of a specific detection area	The sample stage accommodates a wide variety of sample sizes in large quantities
Visual Navigation Interface: Accurate Positioning of Inspection Locations	The stage can do 360° rotation to detect sample (optional)
False Color: Enhanced Visualization of Inspection Images	Can do 60° tilt observations



The X-7100 inspection system, launched by RMI, is widely used across various industries. It is commonly applied in the internal structure inspection of electronic components, including:

- Void ratio measurement of bubbles/solder joints
- Short circuits and open circuits in circuitry
- Insufficient, missing, or skipped solder in solder joints
- Foreign objects or cracks inside components

Technical Parameters

Tube	Model	X-7100 (Imported tube)	X-7100 (Domestic)
Tube	Tube type	Enclosed type	Enclosed type
	Spatial resolution	5μm	5-7μm
	Tube voltage	90KV	90KV
	Tube current	200uA(8w)	200uA(8w)
FPD	Image taking type	Flat-panel Digital	Flat-panel Digital
	Imaging precision	85um	85um
	A/D density value	16bit (65536)	16bit (65536)
	Resolution	1536*1536px	1536*1536px
System	Frame frequency	20 (FPS)	20 (FPS)
	Optical/system magnification	250X/1000X	250X/1000X
	Operating system	WINDOWS 11	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W	AC110-220V 50-60HZ 1200W
Structure	Radiation safety test	<1 uSV/H	<1 uSV/H
	Detector rotation angle	60°	60°
	Stage size	540*540mm	540*540mm
	Detection range	510*510mm	510*510mm
	Load-bearing	≤10kg	≤10kg
	Machine size	1102*1360*1602mm(L*W*H)	1102*1360*1602mm(L*W*H)
	Machine size (including monitor)	1607*1903*1957mm(L*W*H)	1607*1903*1957mm(L*W*H)
	Machine weight)	950kg	950kg
Safety	Stage movement	Automatic/Manual	Automatic/Manual
	CE Certificate	Yes	Yes
	State immunity	Yes	Yes
	Radiation Safety Permit	Yes	Yes

Advanced X-Ray Series

X-7900

X-Ray Inspection System

Applications



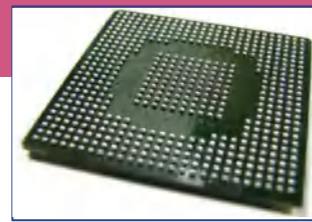
PCB



Power battery



Battery nickel strip



BGA



Lithium battery



PCBA



SIP



MINI LED package

High-end Configuration

Joystick control	Rotary stage
<p>Can do real-time speed adjustment</p> <p>Function of button controls are shown in the figure</p>	<p>The rotary sample stage enables 360° rotation for sample inspection, reducing the need for manual adjustments, achieving precise positioning, and facilitating sample observation.</p>



The X-7900 Semiconductor Inspection System is designed for high-precision testing of integrated circuits and semiconductor devices, including BGA, IGBT, flip chip, and PCBA assembly soldering, as well as applications in the LED, photovoltaic, and heatsink industries.

It is widely used in industrial manufacturing fields such as:

Automotive components

- Casting inspection
- Copper-aluminum welded parts
- Pressure vessel and pipeline weld quality testing
- New material analysis

The system is also capable of detecting defects in various types of batteries, including:

- Power batteries
- Cylindrical cells

Technical Parameters

	Model	X-7900	X-7900-S
Tube	Tube type	Enclosed type	Enclosed type
	Spatial resolution	3μm	5μm
	Tube voltage	130KV	90KV
	Tube current	300uA	200uA
FPD	Image taking type	Flat-panel Digital	Flat-panel Digital
	Imaging precision	85um	85um
	A/D density value	16bit (65536)	16bit (65536)
	Resolution	1536*1536px	1536*1536px
System	Frame frequency	20 (FPS)	20 (FPS)
	Optical/system magnification	450X/2000X	450X/2000X
	Operating system	WINDOWS 11	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W	AC110-220V 50-60HZ 1200W
Structure	Radiation safety test	<1 uSV/H	<1 uSV/H
	Detector rotation angle	60°	60°
	360° rotary stage	Diameter 430mm	Diameter 430mm
	Stage size	540*540mm	540*540mm
	Detection range	510*510mm	510*510mm
	Load-bearing	≤10kg	≤10kg
	Machine size	1098*1389*2157mm(L*W*H)	1098*1389*2157mm(L*W*H)
	Machine size (Including monitor)	1601*1920*2157mm(L*W*H)	1601*1920*2157mm(L*W*H)
Safety	Machine weight	1050kg	1050kg
	Stage movement	Automatic/Manual	Automatic/Manual
	CE Certificate	Yes	Yes
	State immunity	Yes	Yes
	Radiation Safety Permit	Yes	Yes

Automatic X-Ray Series (AXI)

AXI X-7900

X-Ray Inline Automatic Inspection System

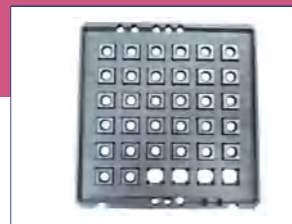
Applications



Semiconductor packaging



BGA



Camera module



Radiator



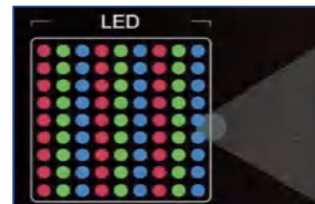
Lithium battery



PCBA

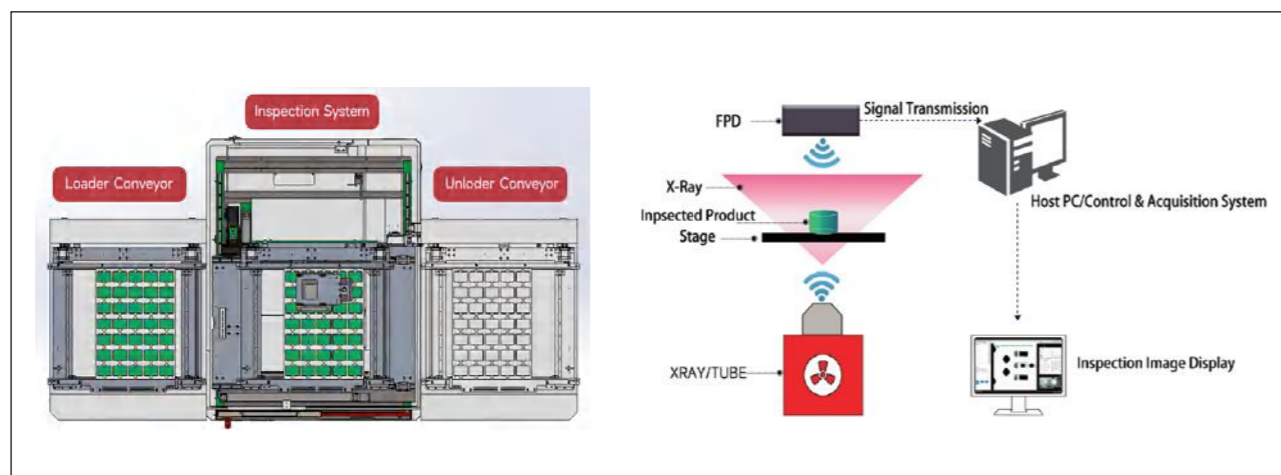


Sensor



MINI LED package

Job flow



X-7900 (AXI) semiconductor inline inspection system is designed for high-precision automated inspection of integrated circuit chips and semiconductors, including but not limited to BGA, IGBT, flip chips, and PCBA component soldering. It is widely used in industries such as LED manufacturing and photovoltaics for high-accuracy testing.

The system is extensively applied in industrial manufacturing sectors, including:

- Automotive parts inspection
- Casting defect analysis
- Pressure vessel and pipeline weld quality testing
- New material analysis

In addition, the X-7900 enables automatic defect detection across various battery types, such as power batteries, cylindrical cells, pouch cells, prismatic cells, and laminated batteries.

Technical Parameters

Tube	Model	AXI X-7900
	Tube type	Enclosed type
	Spatial resolution	5µm/3-7µm
	Tube voltage	90KV/130KV
FPD	Tube current	200uA/300uA
	Image taking type	Flat-panel Digital
	Imaging precision	85um
	A/D density value	16bit (65536)
System	Resolution	1536*1536px
	Frame frequency	20 (FPS)
	Optical/system magnification	450X/2000X
	Operating system	WINDOWS 11
Structure	Power supply/Power	AC110-220V 50-60HZ 1200W
	Radiation safety test	<1 uSV/H
	Stage size	320*320mm
	Detection range	300*300mm
	Load-bearing	≤10kg
	Machine size	1412*1690*2157(L*W*H)
	Conveyor Height	900±20mm
	Machine weight	1400kg
	Adjustable plate width	50-610mm
	PCB compatible thickness	0.5-5mm
Safety	Motion compensation accuracy	10um
	Stage movement	Automatic/Manual
	CE Certificate	Yes
	State immunity	Yes
	Radiation Safety Permit	Yes

Large Size X-Ray series

X-9200L/X-9200

X-Ray Inspection System

Applications



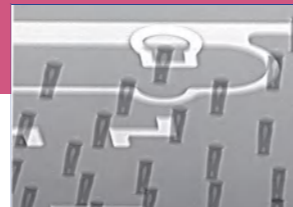
LCM display module



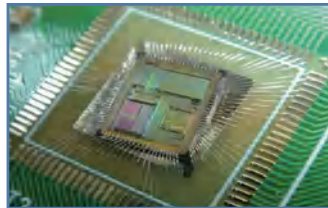
Aeronautical parts



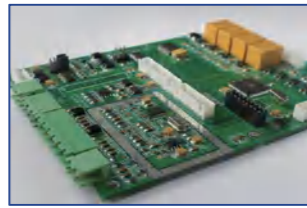
Semiconductors



Blind hole inspection



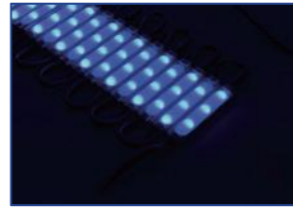
IC bonding wire



PCBA



PCB press lamination



DACROMET technique

Functional Advantage

Functions	Advantages
CNC Program: Automated batch inspection of different locations	Automatic X-ray tube ON/OFF control for batch sample inspection
Array Function: Automated batch inspection of samples with fixed positions and equal spacing	Equipped with a high-Stability, high-precision X-ray tube
Void Measurement: One-Key measurement of void size, void ratio, and wetting height	High-Resolution digital X-ray flat panel detector
Length and Width Measurement: Measure the length and width of a specific detection area	The sample stage accommodates a wide variety of sample sizes in large quantities
Visual Navigation Interface: Accurate Positioning of Inspection Locations	The stage can do 360° rotation to detect sample (optional)
False Color: Enhanced Visualization of Inspection Images	Can do 60° tilt observations



X-9200L Semiconductor Inspection System
Achieving a minimum detection accuracy of 1 μm, this system is designed for high-precision testing of integrated circuit chips and semiconductor components, including:

- BGA
- IGBT
- Flip chips
- PCBA soldering
- LED bonding
- IC packaging

It is widely used in industries requiring ultra-fine defect detection and quality control in semiconductor manufacturing and assembly.

Technical Parameters

	Model	X-9200 (2D) STD	X-9200L (2D) MAX
Tube	Tube type	Enclosed type	Enclosed type
	Spatial resolution)	3μm/5μm	3μm/5μm
	Tube voltage	130kv/90kv	130kv/90kv
	Tube current	300μA/200μA	300μA/200μA
FPD	Image taking type	Flat-panel Digital	Flat-panel Digital
	Imaging precision	85um	85um
	A/D density value	16bit (65536)	16bit (65536)
	Resolution	1536*1536px	1536*1536px
System	Frame frequency	20 (FPS)	20 (FPS)
	Optical/system magnification	450X/2000X	450X/2000X
	Operating system	WINDOWS 11	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1800W	AC110-220V 50-60HZ 1800W
Structure	Radiation safety test	<1 uSV/H	<1 uSV/H
	Stage rotation angle	360° optional	/
	Detector rotation angle	60°	45°
	Stage size	740*690mm	650*1220mm
	Detection range	680*660mm	620*1200mm
	Load-bearing	≤20kg	≤20kg
	Machine size	1542*1943*2215mm(L*W*H)	1512*1912*1799mm(L*W*H)
	Machine size (Including monitor)	1604*1943*2215mm(L*W*H)	1698*2269*2256mm(L*W*H)
Safety	Machine weight	1800kg	1800kg
	Stage movement	Automatic/Manual	Automatic/Manual
	CE Certificate	Yes	Yes
	State immunity	Yes	Yes
	Radiation Safety Permit	Yes	Yes

High Precision 3D/CT

X-7900 ULTRA (3D/CT)

Nano Focus X-Ray Inspection System



X-7900 ultra (3D/CT) Semiconductor Inspection System features a minimum detection accuracy of 1µm and is used for high-precision testing of integrated circuit chip semiconductors, such as BGA, IGBT, flip-chip, PCBA component soldering, LED bonding, IC packaging, and

Applications



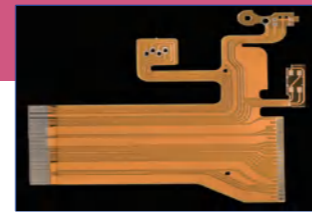
LCM display module



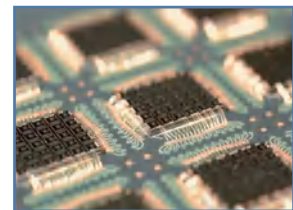
Blind hole



Semiconductors



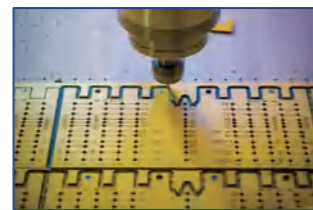
FPC



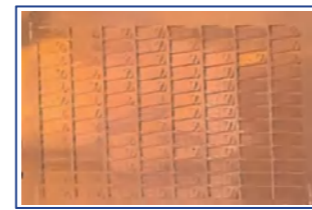
IC bonding wire



PCBA



PCB press lamination



TSV/TGV process

X-RAY Principle

X-RAY Principle for 2D/2.5D	X-RAY Principle for Cone-beam CT	X-RAY Principle for Planar CT
The X-ray tube generates and emits a beam, which is acquired by the X-ray detector. The computer then processes the captured image and conducts AI-based analysis.	Industrial cone-beam CT operates by scanning objects with a conical X-ray beam and employing advanced 3D reconstruction algorithms to generate high-resolution volumetric images.	Industrial planar CT employs specialized scanning trajectories and reconstruction algorithms to achieve 3D imaging of workpiece cross-sections or thin-layer regions.

Technical Parameters

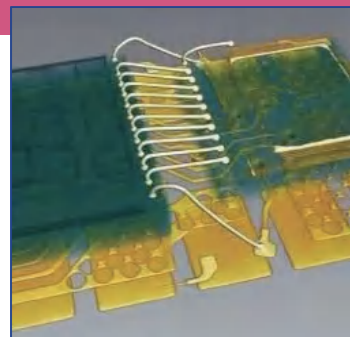
Tube	Model	X-7900ULTRA(3D/CT) (160kv Open tube)
	Tube type	Open tube
	Spatial resolution	1µm
	Tube voltage	160KV
	Tube current	500µA
FPD	Image taking type	Flat-panel Digital
	Imaging precision	85µm
	A/D density value	16bit (65536)
	Resolution	1536*1536px
System	Frame frequency	20 (FPS)
	Optical/system magnification	2000X/7500X
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W
Structure	Radiation safety test	<1 uSV/H
	Detector rotation angle	±70°
	Stage size	670*670mm
	Detection range	600*600mm
	Load-bearing	≤10kg
	Machine size	1578*1675*1910mm(L*W*H)
	Including monitor	1578*1675*2265mm(L*W*H)
	Machine weight	2200kg
Safety	Stage movement	Automatic/Manual
	CE Certificate	Yes
	State immunity	Yes
	Radiation Safety Permit	Yes

Automatic X-Ray CT/3D Inspection (AXI)

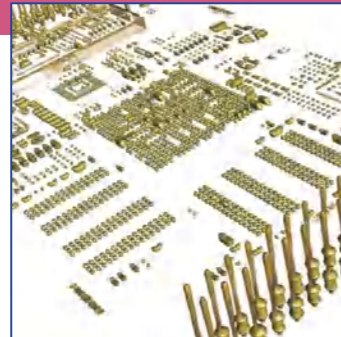
AXI-9900 Ultra 3D AXI Inspection System



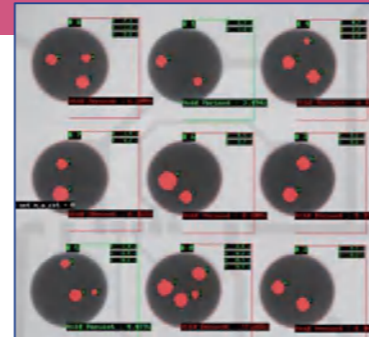
Applications



CT/3D Wire inspection

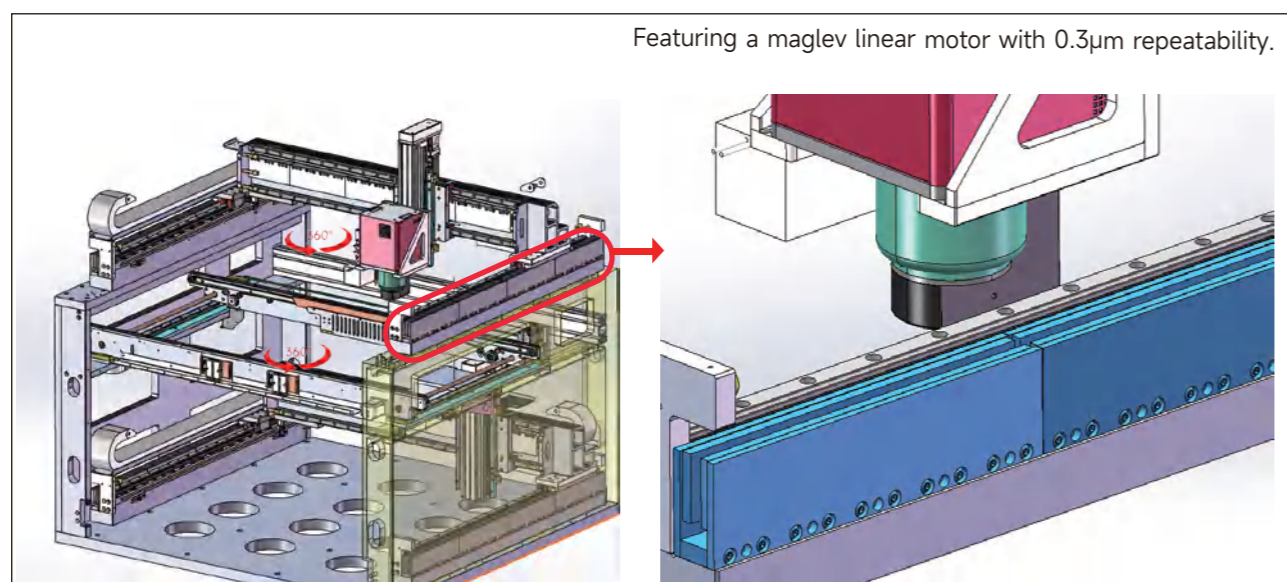


Tin-climbing 3D inspection



BGA Inspection

Operating principle



Technical Parameters

Tube	Model	AXI-9900 (3D/CT)	AXI-X7900 Pro
	Tube type	Enclosed type	Enclosed type
	Spatial resolution	3-7µm	3-7µm
	Tube voltage	130kv	130kv
	Tube current	300µA	300µA
FPD	Image taking type	Flat-panel Digital	Flat-panel Digital
	Imaging accuracy	85µm	85µm
	A/D density value	16bit (65536)	16bit (65536)
	Resolution	1536*1536px	1536*1536px
	Frame frequency	20 (FPS)	20 (FPS)
System	Optical/system magnification	150X/1000X	150X/1000X
	Operating system	WINDOWS 11	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1800W	AC110-220V 50-60HZ 1800W
	Radiation safety test	<0.5uSV/H	<0.5uSV/H
	Image processing software	Comprehensive X-ray inspection software with image enhancement and precision measurement	Comprehensive X-ray inspection software with image enhancement and precision measurement
Structure	Motion accuracy	0.3µm	5µm
	Adjustable board width	50-610mm	50-610mm
	Connection height	900±20mm	900±20mm
	Sensing range	605*600mm	605*600mm
	Load-bearing	≤10kg	≤10kg
	Machine size	1596*1798*1750mm(L*W*H)	1596*1798*1750mm(L*W*H)
	Machine weight	2850kg	2800kg
	Stage movement mode	Magnetically levitated rotary-linear motor	Ultra-precision ballscrew drive
	PCB compatible thickness	0.5-5mm	0.5-5mm
	Code reading camera	1200W/2000W (Optional)	1200W/2000W (Optional)
	MES upload format	JSON,CSV,TXT,XML	JSON,CSV,TXT,XML
Software	Defect detection method	AI (based on YOLO12/ PYT)	AI (based on YOLO12/ PYT)
Safety	CE Certificate	Yes	Yes
	Radiation Safety Permit	Yes	Yes

Automatic X-Ray Series (AXI)

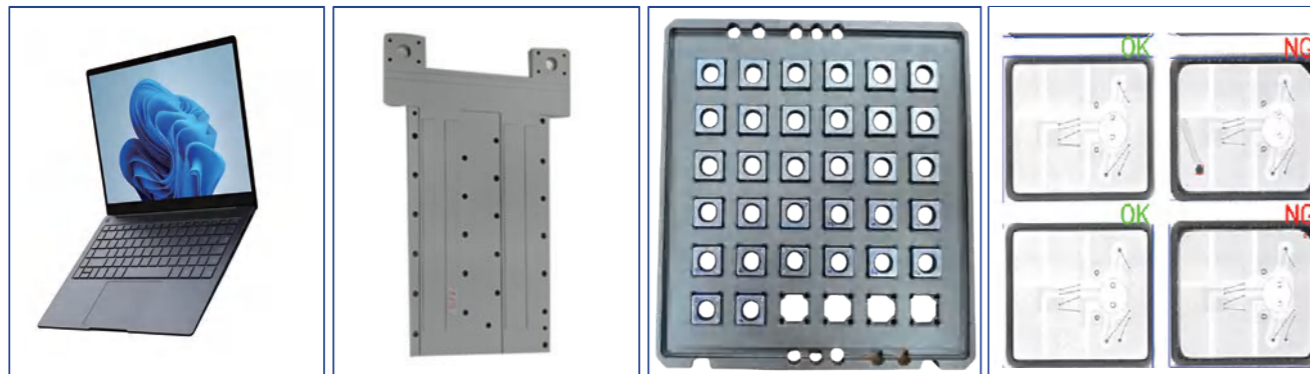
AXI XC3100

AXI Inspection System



AXI XC3100 Electronic Semiconductor Inline Inspection System is used for high-precision testing in the automatic detection of integrated circuit chip semiconductors, such as BGA, IGBT, flip-chip, PCBA component soldering, LED, photovoltaic, and other industries.

Applications



Notebook

Heat sink

Camera

Sensor

Inspection Result

Product	Inspection images	AI algorithm automatic inspection

Technical Parameters

Tube	Model	AXI XC3100
	Tube type	Enclosed type
	Spatial resolution	5μm
	Tube voltage	90kv
FPD	Tube current	200μA
	Image taking type	Flat-panel Digital
	Imaging accuracy	139um
	A/D density value	16bit (65536)
System	Resolution	3072*3072px
	Frame frequency	20 (FPS)
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 2500W
Structure	Radiation safety test	<0.5uSV/H
	Image processing software	Comprehensive X-ray inspection software with image enhancement and precision measurement capabilities.
	Motion accuracy	5um
	Conveyor height	800mm
Safety	Sensing range	430*430mm
	Load-bearing	<10kg
	Machine size	3125*1656*1920mm(L*W*H)
	Machine weight	2500kg
Safety	Stage movement mode	Ultra-precision ball screw drive
	Code reading camera	1200W/2000W (Optional)
	MES upload format	JSON,CSV,TXT,XML
	State immunity	Yes
Safety	Radiation Safety Permit	Yes

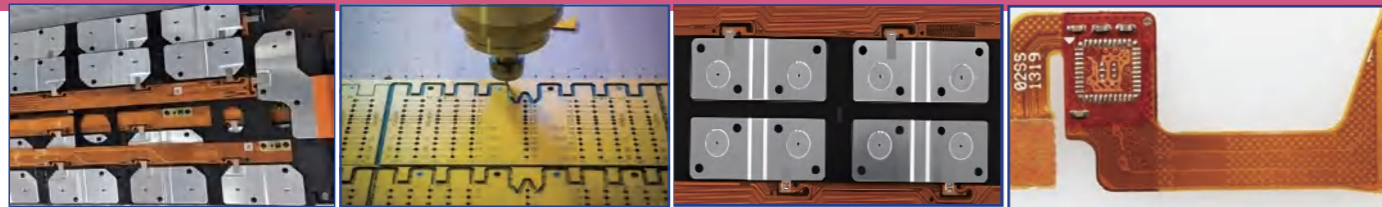
Automatic Inline Reflow Inspection System

AXI-9200L

X-Ray Automatic Inline Inspection System



Applications



Battery nickel strip

PCB Press lamination

CCS

FPC

Structural Diagram

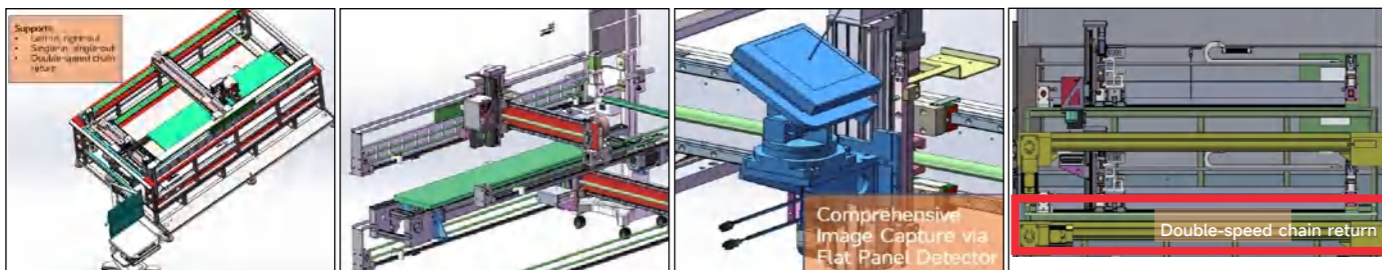
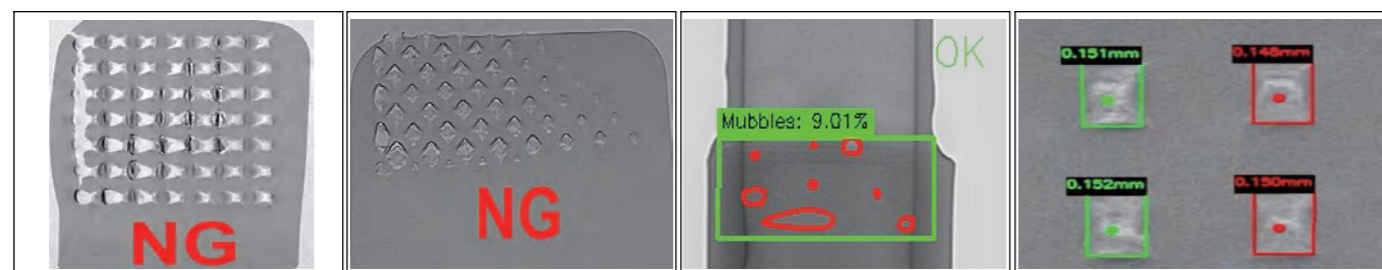


Image with Inspection Data



Cracks

Displacement

FPC voids

Welding penetration measurement

Technical Parameters

Tube	Model	AXI-9200L	AXI-9200L2	AXI-9200L3	AXI-9200L4
	Tube type	Enclosed type			
	Spatial resolution	5-7μm			
	Tube voltage	90KV		90KV*2	90KV
FPD	Tube current	200uA			
	Image taking type	Flat-panel Digital		Flat-panel Digital*2	Flat-panel Digital
	Imaging accuracy	85μm			
	Image size	130*130mm			
System	Resolution	1536*1536px			
	A/D density value	16bit (65536)			
	Stage movement mode	Accumulation Chain	Adjustable-width Belt Conveyor	Adjustable-width Belt Conveyor /Accumulation Chain	Adjustable-width Belt Conveyor
	Inspection mode	Automatic inspection			
Structure	Operating system	WINDOWS 11			
	Power supply/Power	AC110-220V 50-60HZ 2600W			
	Stage size	2085mm*400mm	2000mm*730mm	2850mm*740mm	2200mm*740mm
	Effective inspection range	1710mm*300mm	1546mm*730mm	2550mm*740mm	1700mm*740mm
	Machine size (including monitor)	2889*2284*2210mm	2478*2284*2195mm	4980*1835*1855mm	2478*1835*1829mm
	Load-bearing	≤250kg	≤30kg	≤30kg/≤250kg	≤30kg
	Machine weight	5300kg	4800kg	9600kg	4800kg
	Adjustable-width	100-700mm	50-700mm	50-700mm	50-700mm
	Inspection speed	Loading/Unloading Time: 12s per cycle Single-Point Scanning Time: ~1.5s			
	Radiation safety test	<1 uSV/H			
Safety	Conveyor height	900-910mm			
	Air supply specification	0.4MPa-0.6MPa			
	Motion compensation	5um			
	MES upload format	JSON, CSV, TXT, XML			
Safety	CE Certificate	Yes. STE2311203S			
	State Immunity	Yes			
	Radiation Safety Permit	Yes.			

Offline X-Ray Counting System

XC-3100

High Precision Intelligent X-Ray Counting Machine



Simultaneous counting of different reels, simultaneous imaging, automatic numbering / counting

Reduce the number of processes, shorten the process route, and improve efficiency

Calculation Legend



Technical Parameters

Tube	Model	XC-3100
	Tube type	Enclosed type
	Spatial resolution	30μm
	Tube voltage	80KV (limit of 50kV)
	Tube current	0.01-0.089mA
FPD	Image taking type	Flat-panel Digital
	Imaging accuracy	139μm
	Image size	427*427mm
	Resolution	3072*3072px
Camera	Image taking speed	5 EDS/s
	Code reading pixels	20 million / px
	Miscalculation rate	≤0.01% (0201 as an example)
System	Accuracy	99.99% (0201 as an example)
	Minimum part size that can be detected	01005
	Record keeping requirements	Save by day, no capacity limit, TXT. CSV. XLS
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W
	Radiation safety test	<1 uSV/H
	Repeatability test	≥2.0sigma
Structure	Cycle time	≤10s/time
	Counting speed	6-10 S /4 reels (CHIP 0201)
	Max diameter of the material reel	430mm (4-17INCH)
	Max height of the material reel	1-92mm
	Max weight of the material reel	≤10kg
	Machine size	734*1000*1934mm(L*W*H)
	Machine size (Including printer)	949*1456*1934mm(L*W*H)
Machine weight	450kg	

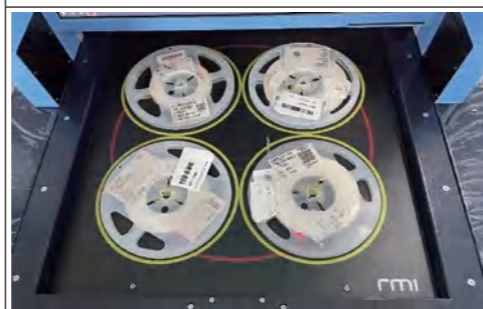
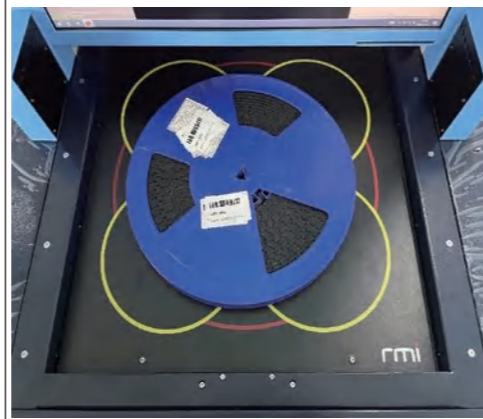
Function Description

Sensor-based label printing function



Sensor-based label printing function effectively prevents mislabeling, disorderly labeling, and missing labels, improving the accuracy of data entry.

Can count multiple material reels at once, or single material reel



Single-reel or multi-reel counting mode can be selected as required.

Automatic QR Code Reading Function (Optional)



Automatic barcode reading saves time and improves efficiency.

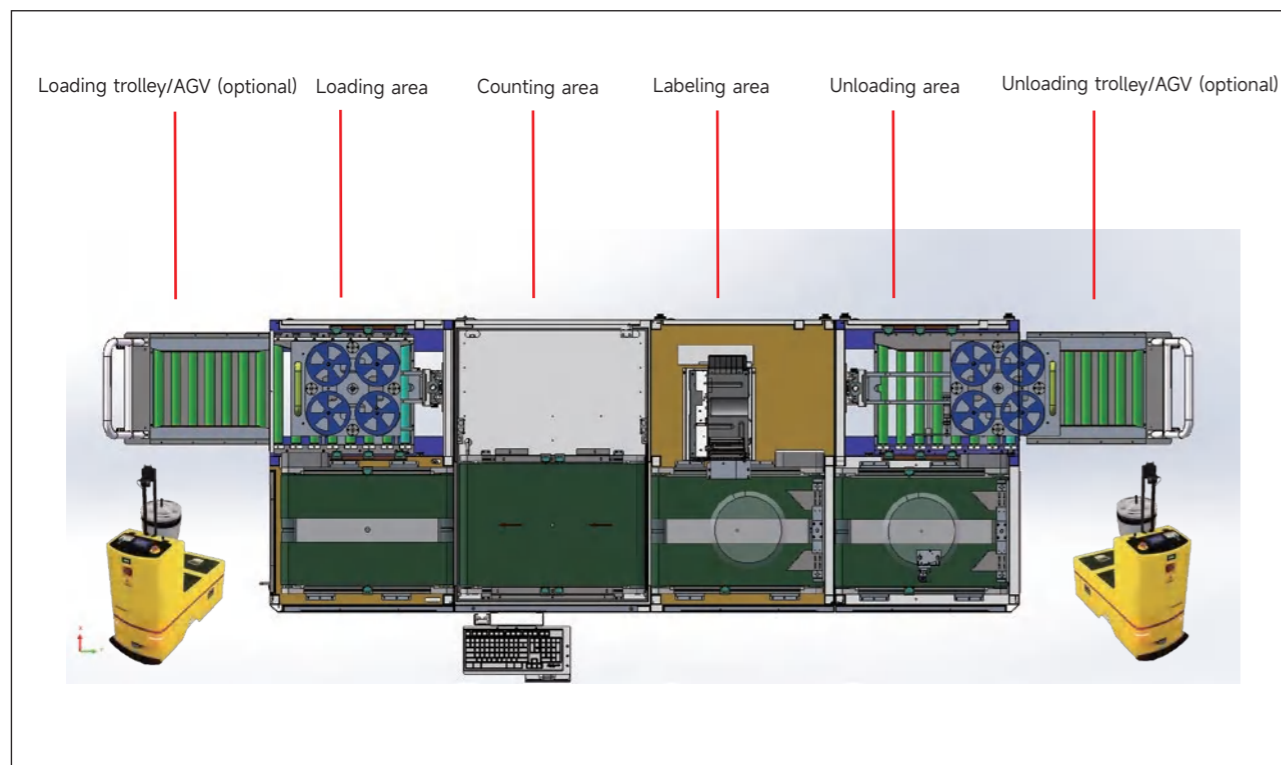
Inline X-Ray Counting System

XC-3100-INLINE Inline X-Ray Counting Machine

Automatic Loading and Unloading of Material Reel
AI Automatic Code Reading



Manual feeding and AGV automatic feeding are available for the material loading trolley. For the unloading part, also can choose manual unloading or AGV automatic unloading



Technical Parameters

Tube	Model	XC-3100-INLINE
	Tube type	Enclosed type
	Spatial resolution	30μm
	Tube voltage	80KV (limit of 50kV)
	Tube current	0.01-0.089mA
FPD	Imaging accuracy	139μm
	Image size	427*427mm
	Resolution	3072*3072px
System	Accuracy	99.99% (0201 as an example)
	Minimum part size that can be detected	01005
	Operating mode	AI intelligent full warning tracking system
	Power supply/Power	AC110-220V 50-60HZ 1200W
	Radiation safety test	<1 uSV/H
	Repeatability test	≥2.0sigma
	Cycle time	≤15s/time
	Operating system	WINDOWS11
	The largest detectable diameter	430mm(7-17INCH)
	The largest detectable height	1-80mm
Detectable reel weight	≤10kg	
Structure	Counting speed	9-15 S / reel (CHIP 0201)
	Machine size	3087*1194*1957mm(L*W*H)
	Machine size (including trollies)	4366*1488*1957mm(L*W*H)
	Machine weight	1500kg
Safety	Stage movement mode	Fully automatic loading, counting, labeling and unloading
	CE Certificate	Yes. STE2311203S
	State immunity	Yes.
	Radiation Safety Permit	Yes.

Inline Label Changing Machine

CL-1100-INLINE

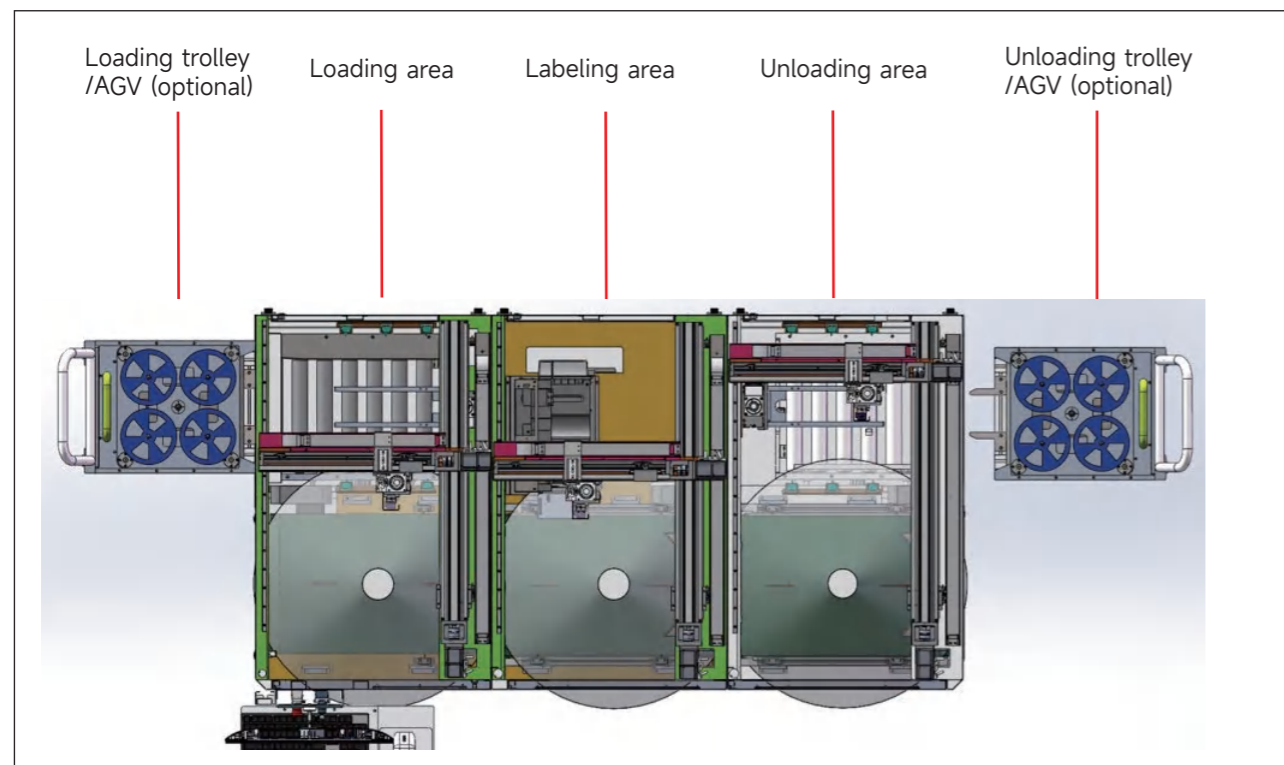
Automatic loading and unloading of material reel

AI automatic code reading



Features and Advantages

Function	Fully automatic loading and unloading, labeling, material receiving, and NG diversion
	Intelligent recognition of 1D barcodes, 2D barcodes, and characters
	Automatic labeling on blank areas with vision positioning and angle rotation
Advantage	Increase label change efficiency by eliminating manual barcode input; the software automatically identifies and matches accordingly.
	Reduce manual entry errors, with barcodes interfacing to the MES for streamlined data management.
	Single-person operation: the system automatically prints and applies labels.



Technical Parameters

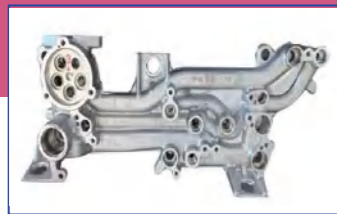
Structure	Model	CL-1100
	Compatible with various materials for label-changing	4-18 inch tape reels, square trays, and DIP components
	Relabeling method	Automatic OCR/AI recognition
	Maximum tray size	450*450mm
	Loading method	Auto mode
System	Transcoding speed	2-4 s / labeling time excluded
	Reading Camera	20 MP GigE Industrial Camera
	Pixel matrix/size	5473*3684、φ17.6mm
	Lens focal length	1.1inch/2000w/16mm
	MES Compatibility	WMS, ERP, SAP, OPC... compatible with almost all systems
	Operating Height	900mm
	Minimum compatible barcode size	5*5mm
	Compatible label size	40*110mm
	Custom label template	Fully customizable, unlimited capacity
	Output interface format	JSON,XML,TXT,CSV
	Barcode data output format	Datamatrix,PDF417,AZ,QR,CODE128,39...
	Data storage duration	Retention: 7 days - unlimited; record limit adjustable
	Operating System	WINDOWS11
	Power Supply	AC110-220V 50-60HZ
	Equipment Dimensions	2277*1479*2030 (mm)
Equipment Weight	≤800kg	
Printer	Ribbon width	33.8mm-110mm
	Printing method	Direct Thermal / Thermal Transfer
	Print resolution	203dpi
Safety	Auto video traceability	Optional
	Certification	CE

NDT Casting Inspection Series

X-160T-M

X-Ray Inspection System for Casting

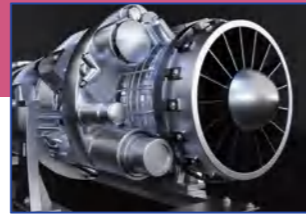
Applications



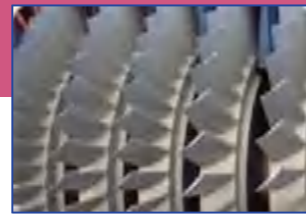
Aluminum castings



Hardware



Automotive parts



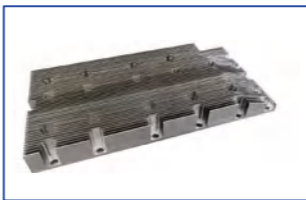
Aerospace castings



IGBT industry



Power battery



Heat dissipation parts



Boiler pipeline

Inspection Cases

NDT Internal measuring, 0.2mm	Cooling fin	Heating rod



The X-160T-M equipment launched by RMI effectively addresses issues commonly found in aluminum castings within the current manufacturing industry, such as cracks, shrinkage porosity, gas pores, sand holes, or other internal defects. These defects can cause significant losses to end users—for instance, products that fail to meet quality standards cannot be delivered. As the market for aluminum castings continues to grow steadily, particularly for critical safety components, the need for production safety and product quality assurance necessitates the use of X-Ray non-destructive testing equipment to inspect the integrity of aluminum castings.

Technical Parameters

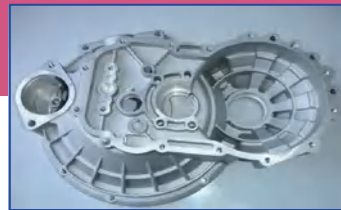
Tube	Model	X-160T-M
	Tube type	Enclosed type
	Spatial resolution	50μm
	Tube voltage	160kv
	Tube current	3mA
FPD	Image taking type	Flat-panel Digital
	Imaging accuracy	139μm
	Imaging size	427*427mm
System	Resolution	3072*3072px
	Magnification	15X
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W
Structure	Radiation safety test	<1uSV/H
	Protection standard	GB 18871-2022
	Stage size	450*450mm
	Sensing range	420*420mm
	Load-bearing	≤25kg
	Machine size	884*1051*1956mm(L*W*H)
	Machine size with monitor	1234*1599*1956mm(L*W*H)
Safety	Machine weight	1300kg
	Stage movement	Zoom in and zoom out manually
	CE certificate	Yes
	Radiation Safety Permit	Yes

NDT Casting Inspection Series

X-160T-PRO

X-Ray Inspection System for Casting

Applications



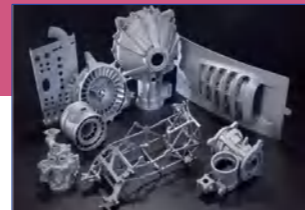
Aluminum castings



Heat dissipation parts



Automotive castings



Aerospace castings



IGBT industry



Power battery



Wheel hub



Cooling fin

Inpection Cases

NDT Internal measuring, 0.2mm	Automobile parts inspection	Casting inspection



The X-160-Pro equipment launched by RMI effectively addresses issues commonly found in aluminum castings within the current manufacturing industry, such as cracks, shrinkage porosity, gas pores, sand holes, or other internal defects. These defects can cause significant losses to end users—for instance, products that fail to meet quality standards cannot be delivered. As the market for aluminum castings continues to grow steadily, particularly for critical safety components, the need for production safety and product quality assurance necessitates the use of X-Ray non-destructive testing equipment to inspect the integrity of aluminum castings.

Technical Parameters

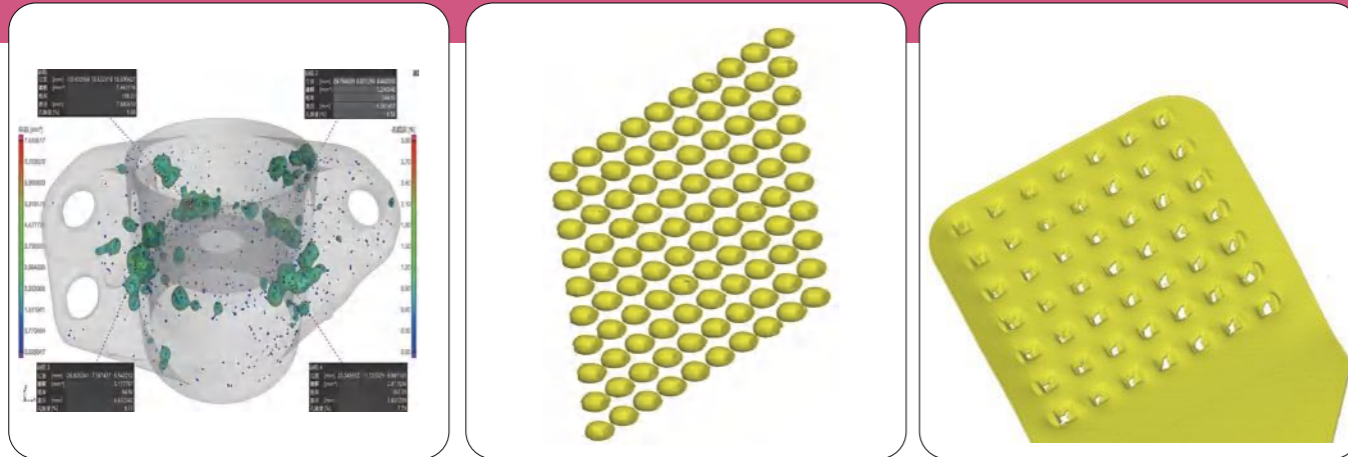
Tube	Model	X-160T-PRO
	Tube type	Uses imported/domestic 160kV X-ray tube
	Spatial resolution	50um
	Tube voltage	160kv
	Tube current	3mA
FPD	Image taking type	Flat-panel Digital
	Imaging accuracy	139μm
	Imaging size	427*427mm
	Resolution	3072*3072px
System	Gray scale level	16bit level 65535
	Magnification	15X
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 1200W
	Radiation safety test	<1uSV/H
Structure	Protection standard	GB 18871-2022
	Rotary stage	C-arm structure with plus or minus 15 degrees tilt
	Sensing range	800*1000 (diameter*height)
	Load-bearing	≤50kg
	Machine size	2259*1966*2197mm(L*W*H)
	Operating table size	794*667*1493mm(L*W*H)
	Machine weight	2500kg
Safety	Stage movement	5-axi linkage
	CE certificate	Yes
	State immunity	Yes
	Radiation Safety Permit	Yes

NDT Casting Industry CT Inspection

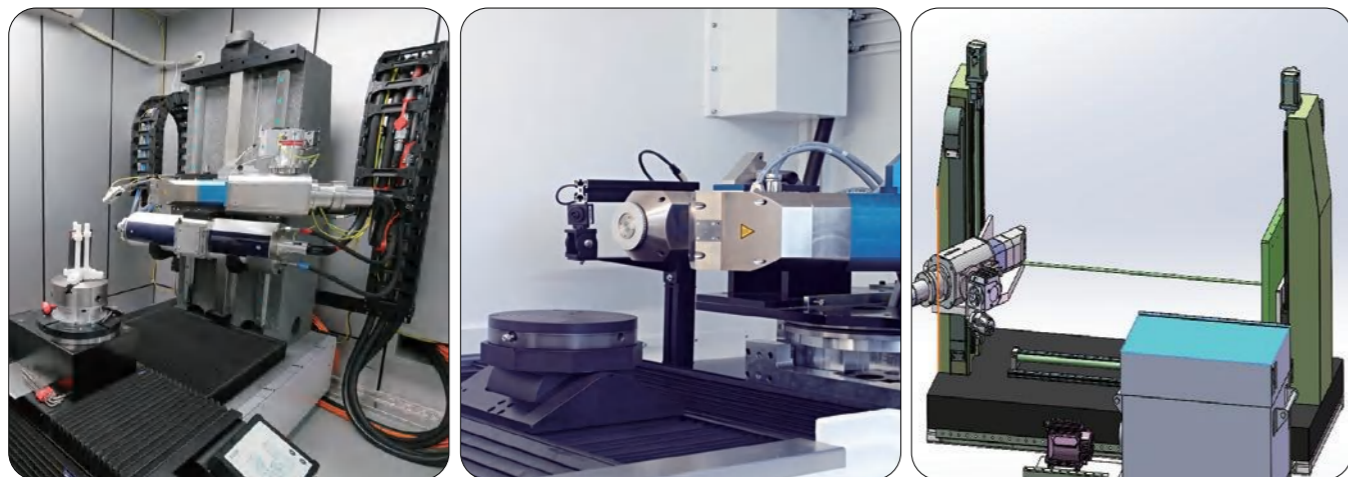
X-225CT

CT X-Ray Inspection System for Casting

Advantages



Internal Structure Diagram



The X-225T-CT equipment launched by RMI effectively addresses issues commonly found in aluminum castings within the current manufacturing industry, such as cracks, shrinkage porosity, gas pores, sand holes, or other internal defects. These defects can cause significant losses to end users—for instance, products that fail to meet quality standards cannot be delivered. As the market for aluminum castings continues to grow steadily, particularly for critical safety components, the need for production safety and product quality assurance necessitates the use of X-Ray non-destructive testing equipment to inspect the integrity of aluminum castings.

Technical Parameters

Tube	Model	X-225T-CT
	Tube type	Imported 225KV X-Ray Tube
	Spatial resolution	4um
	Tube voltage	30-225kv
	Tube current	0-3mA
	Maximum tube power of X-ray)	320W
	Maximum target power of X-ray)	280W
	Target material	Tungsten
	Window material	Aluminum
	X-ray angle	30°
FPD	Minimum object focal distance	< 6.75mm
	Image taking type	Flat-panel Digital
	Imaging accuracy	139μm
System	Imaging size	427*427mm
	Resolution	3072*3072px
	Operating system	WINDOWS 11
	Power supply/Power	AC110-220V 50-60HZ 2500W
Structure	Radiation safety test	<1uSV/H
	Protection standard	GB 18871-2022
	Sensing range	Maximum diameter 870mm
	Load-bearing	≤50kg
Safety	Machine size	3500*1900*2500mm(L*W*H)
	Machine weight	4500kg
	Stage movement	Zoom in and zoom out manually
	CE certificate	Yes
	State immunity	Yes
	Radiation Safety Permit	Yes

Honorary Clients (partialy)

Ranking in no particular order

SemiStar Corp. ,the distributor in North America : sales@semistarcorp.com

