TOKI VISION
INTELLIGENT REWORK, X-RAY, BGA & VISION INSPECTION

OPTILIA BGA Microscope
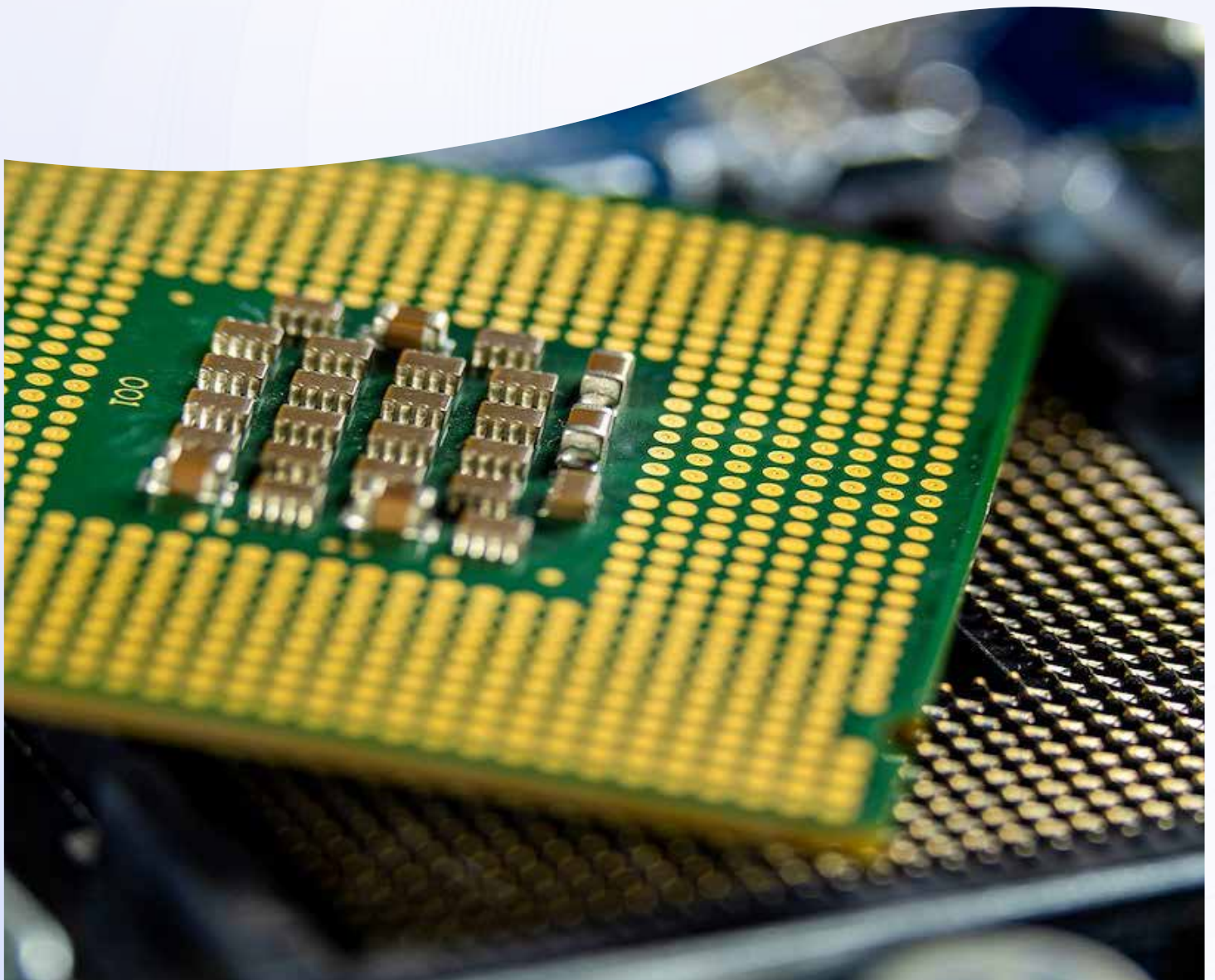
Optilia M30X
EasyView & FreeSight
Inspection System

Product Features:
- Built-in control unit
- Cost-effective, plug and play system
- Flexible and designed for modularity
- 720p or 1080p

M30x	EasyView	FreeSight
w/o Close-up	~ 210 - 240 mm	~350 - 500 mm
+2 Close-up	~ 145 - 160 mm	~ 210 - 240 mm
+5 Close-up	~ 90 - 110 mm	~ 125 - 135 mm
+10 Close-up	~ 60 - 70 mm	~ 65 - 73 mm
1x Zoom	~ 256 x 145 mm	~ 522 x 293 mm
10x Zoom	~ 25.6 x 14.5 mm	~ 52 x 29 mm
20x Zoom	~ 12.8 x 7.2 mm	~ 26 x 14.8 mm
30x Zoom (+2 Close-up)	5.7 x 3.2 mm (91x magnification on 24" monitor	~ 8.6 x 4.8 mm (60x magnification on 24" monitor
30x Zoom (+5 Close-up)	3.9 x 2.2 mm (133x magnification on 24" monitor)	~ 5 x 2.8 mm (100x magnification on 24" monitor)
30x Zoom (+10 Close-up)	2.6 x 1.45 mm (200x magnification on 24" monitor)	~ 3.0 x 1.7 mm (170x magnification on 24" monitor

Working Distance / *Field of View*

M30x	Standard	HDMI
Image Sensor	1/2.8" CMOS, 3.2 MP	1/2.5" CMOS, 2.2 mega pixels
Picture Quality	Full HD, 1080p (1920x1080)	
Output Signal	1080/59.94i, 1080/50i	1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 1080i/60, 1080i/59.94, 1080i/50
Optics	30x optical zoom with auto-focus, F1.6 to F14 (F4.7 to F14 at 30x)	
Camera Control	Integrated aluminium housing Control unit with function buttons	
Adjustable Parameters	Optical zoom, brightness, focus, picture freeze, zoom factor display, setup save & recall	
Laser Pointer	Red LED laser, 0.5 W output power, Laser class 2	
Input	DC in (5-pin MiniDin)	
Output	FHD Component Y/Pb/Pr Video out (3xRCA), External foot pedal (stereo jack)	HDMI 1.4b
Storage Environment	*-20° - +60° C, 20-95% RH, non-condensing	
Operating Environment	*-5° - +60° C, 20-95% RH, non-condensing	*0° - +60° C, 20-95% RH, non-condensing
Power Requirements	12 V VDC, 4.0 W max	
Camera Weight	710 g without control unit, 970 g with control unit	

Optilia W30X
EasyView & FreeSight
Inspection System

Product Features:

• Advanced control unit or software
• Upgraded features, plug and play system
• Flexible and designed for modularity
• 1080p or 4K Ultra HD
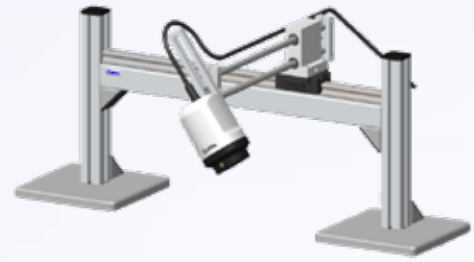
W30x	EasyView	FreeSight
w/o Close-up	~ 210 - 240 mm	~350 - 500 mm
+2 Close-up	~ 145 - 160 mm	~ 210 - 245 mm
+5 Close-up	~ 90 - 110 mm	~ 125 - 140 mm
+10 Close-up	~ 60 - 70 mm	~ 73 - 80 mm
1x Zoom	~ 272 x 153 mm	~ 550 x 309 mm
10x Zoom	~ 28 x 15.8 mm	~ 56 x 31.5 mm
20x Zoom	~ 9.4 x 5.3 mm	~ 18.5 x 10.4 mm
30x Zoom (+2 Close-up)	6.3 x 3.5 mm (83x magnification on 24″ monitor)	9.2 x 5.2 mm (57x magnification on a 24″ monitor)
30x Zoom (+5 Close-up)	5.4 x 3.0 mm (96x magnification on 24″ monitor)	6.9 x 3.9 mm (75x magnification on a 24″ monitor)
30x Zoom (+10 Close-up)	3.0 x 2.0 mm (149x magnification on 24″ monitor	4.4 x 2.5 mm (118x magnification on a 24″ monitor)

Working Distance (left vertical label for first four rows)
Field of View (left vertical label for zoom rows)

W30x	Standard	HDMI	4K
Image Sensor	1/2.8″ CMOS, 3.2 MP	1/2.5″ CMOS, 2.2 mega pixels	1/2.5″ CMOS, 8.15 mega pixels
Picture Quality	Full HD, 1080p (1920x1080)		4K
Output Signal	1080/59.94i, 1080/50i	1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 1080i/60, 1080i/59.94, 1080i/50	**QFHD:** 2160p/29.97, 2160p/25, 2160p/23.98 **FHD:** 1080p/59.94, 1080p/50, 1080p/29.97 (2-2), 1080p/25 (2-2), 1080i/59.94, 1080i/50″
Optics	30x optical zoom with auto-focus, F1.6 to F14 (F4.7 to F14 at 30x)		20x optical zoom + 10x Super Zoom with auto focus, F1.6 to F14 (F4.7 to F14 at 30x)
Camera Control	Aluminum housing Control unit device with joystick or PC control software via serial COM or USB port		
Adjustable Parameters	Optical zoom, Iris, exposure (shutter speed), brightness, focus, white balance (colour), picture freeze, NIRvision mode, image rotate, negative picture, save & recall, zoom factor display and cross line on live image		
Laser Pointer	Red LED laser, 0.5 W output power, Laser class 2		
Input	DC in and serial RS-232		
Output	FHD Component Y/Pb/Pr Video out (3xRCA), External foot pedal (stereo jack)	QFHD HDMI 1.4b	
Storage Environment	*-20° - +60° C, 20-95% RH, non-condensing		
Operating Environment	*-5° - +60° C, 20-95% RH, non-condensing	*0° - +60° C, 20-95% RH, non-condensing	
Power Requirements	12 V VDC, 4.0 W max		
Camera Weight	950 g		

OPTILIA BGA Microscope

Optilia Flexia
BGA Inspection System

Product Features:

- 5.0MP Digital Camera for fast and crisp inspection
- Tiny BGA probe for high density PCB
- Modular Optical System with interchangeable lens
- Optical inspection and X-RAY
- ESD Protected and EPA Approved
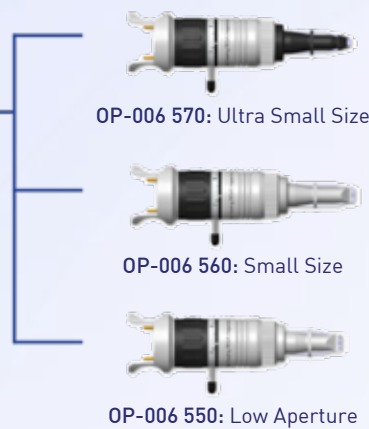- Ultra bright and durable LED illumination

BGA LENS CONFIGURATION

| VIDEO MICROSCOPES | SIDE VIEWING BGA LENSES | OPTICAL PROBES |

OP-006 570: Ultra Small Size

OP-006 571: Ultra Small Size

OP-006 560: Small Size

OP-006 561: Small Size

OP-006 550: Low Aperture

OP-006 551: Low Aperture

OP-019 197: Flexia Definition Digital 5Mp camera, HM
OP-019 191: Flexia Definition Digital 5.0Mp camera
OP-019 152: Flexia Definition Analogue PAL, HM
OP-019 001: Flexia Definition Analogue PAL

BGA Optical Probes	Low Aperture	Small Size	Ultra Small Size
Magnification (attached to Flexia Definition HM)	~ 280x - 5x	~ 350x - 25x	~ 350x - 25x
Focusing Range	~ 0.5 - 100 mm	~ 0.3 - 40 mm	~ 0.2 - 40 mm
Field of View	~ 1.2 - 50 mm	~ 1.0 - 20 mm	~ 1.0 - 20 mm
Required Free Working Area (dependent on surrounding component height)	~ 1.2 - 2.2 mm	~ 1.0 - 1.5 mm	~ 0.6 - 0.8 mm
Thickness of Optical Probe	2.2 mm	1.5 mm	0.8 mm
Width of Optical Probe	7.1 mm	6.0 mm	3.4 mm
Footprint of Optical Probe	0.8 x 7.1 mm	0.8 x 6.0 mm	0.4 x 3.4 mm
Weight	10 gr	10 gr	10 gr

Digital Video Microscope	
Image Sensor	Colour 5.0 mega pixel 2592(H) x1944 (V) USB2.0 interface
Storage Environment	-10° to +60° C, Max 98% RH, non-condensing
Operating Environment	0° to +45° C, Max 95% RH, non-condensing

Inspection	X-RAY	Optical Inspection
Placement	✓	✓
Bridging	✓	✓
Show Voids	✓	-
Cold Solder Joints	✓ (with training)	✓
Reflow Problems	✓ (with training)	✓
Excess Flux	-	✓
Contamination	-	✓
Ball Shape	-	✓

Product	Basic OP-019 185	Standard OP-019 155	Extensive OP-019 156	XL System OP-019 256
Flexia Definition 5.0MP Digital HM, with 100x lens, ESD-protected			✓	✓
Flexia Definition 5.0MP Digital, with 100x lens, ESD-protected	✓	✓		
Side Viewing BGA lens with Ultra Small Size 90° optical probe			✓	✓
Side Viewing BGA lens with Small Size 90° optical probe		✓		
Side Viewing BGA lens with Standard Low Aperture 90° optical probe	✓			
Small Size 90° Optical probe for BGA lens			✓	✓
MicroPrism White LED Background Illumination with dimmer, Attachable			✓	✓
Brush Light, White LED Front Illumination with Dimmer, 2xAA battery tube		✓	✓	✓
DC-adapter for Brush Light Front Illumination		✓	✓	✓
Stand for Brush Light Front Illumination		✓	✓	✓
1-100x varifocal lens with built-in LED ringlight		✓	✓	✓
RingLight White LED for 100x Objective Lens		✓	✓	✓
Optipix Full with Data Base, including Calibration micrometer scale for BGA			✓	✓
Optipix Lite, image view, capture and basic on-screen measurement software	✓	✓		
Extra large Rack&Pinon Boom Stand, Coarse/fine movement, ESD-protected				✓
Focusing Stand, Coarse/fine movement, ESD-protected		✓	✓	
Precision XY-Translation Board, 25mm travel with Quick feed micrometer screws			✓	✓
PCB Holder, ESD-Protected				✓
Aluminum Transport Case, 380x295x80 with Foam inlet (one level)		✓	✓	✓
Annual service and support for Optipix (1 year)	✓	✓	✓	✓

RADIANT Digital Microscope

RAD-7045
Microscopy Zoom Microscopes

**7045 - 1WP / 2WP** **7045-TR - IVS / M** **7045-TR - IVS / M with screen**

HIGH RESOLUTION STEREO ZOOM MICROSCOPE WITH LED RING ILLUMINATION FOR MICROSCOPY

- Sharp and crystal clear images with excellent flatness and contrast
- Large zoom range and long-working distance for high-magnification and high-resolution observation
- The binocular headpiece comes with a pair of 10x lens, can be further enhanced into a trinocular headpiece with an additional 3rd lens attached to the radCam

Model	7045 - 1WP	7045 - 2WP	7045-TR - IVS	7045-TR - M
Display	No Display	No Display	11.6" Retina Display	11.6" Retina Display
Camera	No Camera	No Camera	RAD-HDMI-PRO-IVS (Standard Camera)	RAD-HDMI-PRO-M (With Measurement function)
LED Illumination	Single Row with dimmer control	Double Row with dimmer control	Double Row with dimmer control	Double Row with dimmer control
Viewing head	45º inclined, 360º rotatable head			
Headpiece	Binocular	Binocular	Trinocular	Trinocular
Eyepiece	Wide field, high-eyepoint eyepiece			
Objectives	Zoom objective magnification 0.7X - 4.5X			
Total Magnification range	Between 3.5X - 180X			
Working distance	100mm Special maximum working distance: 30mm-165mm			

RAD-XDS
Monocular Zoom Microscope
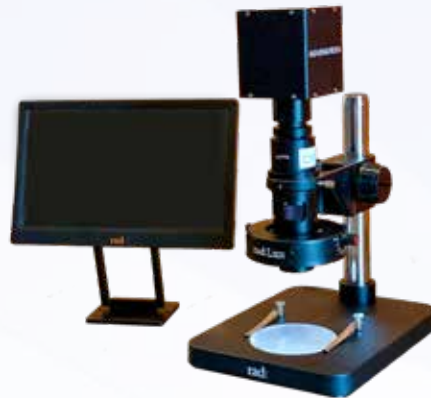
MONOCULAR ZOOM STEREO VIDEO MICROSCOPE FOR OBSERVATION, INSPECTION AND MEASUREMENT

- High quality and fully coated optical system for clear and sharp images
- Used in electronic equipment, semiconductor, laser, LED, industrial online testing, biological research and many other industries for observation, inspection, and measurement.

Model	XDS - IVS	XDS - M
Display	11.6" Retina Display	
Camera	RAD-HDMI-PRO-IVS (Standard Camera)	RAD-HDMI-PRO-M (With Measurement function)
Objective	Zoom objective magnification 0.7X - 5.0X	
Working Distance	105 mm	
Illumination	Double row LED with dimmer control	
Base	Standard base with Focusing Arm	

Magnification of Zoom Lens	Auxiliary Objective	Magnification of TV tube	Total Magnification	Resolution (um)	Depth of Field (mm)
0.7 x - 5 x	0.5x (WD - 170 mm)	0.4x	0.14x - 1.00x	33.55 - 9.32	34.07 - 1.54
0.7 x - 5 x	1.0x (WD - 105 mm)	0.4x	0.28x - 2.00x	16.78 - 4.79	8.52 - 0.40
0.7 x - 5 x	1.4x (WD - 100 mm)	0.4x	0.39x - 2.80x	11.98 - 3.33	4.35 - 0.20
0.7 x - 5 x	0.5x (WD - 170 mm)	0.7x	0.25x - 1.75x	33.55 - 9.32	21.83 - 1.06
0.7 x - 5 x	1.0x (WD - 105 mm)	0.7x	0.49x - 3.50x	16.78 - 4.66	5.46 - 0.26
0.7 x - 5 x	1.4x (WD - 100 mm)	0.7x	0.69x - 4.90x	11.98 - 3.33	2.78 - 0.14

RADIANT Digital Microscope

RAD-AFL
Auto-Focus Microscope

BUILT-IN AUTO FOCUS SYSTEM FOR FAST, ACCURATE AND SMOOTH FOCUS WITH LARGE FIELD OF VIEW

- Fast auto-focus
- Optional and adjustable lighting fixtures
- Large field of view for large board inspection

Sensor Type	Colour CMOS
Pixel	2MP
Pixel Size	1/2.8″
Menu	Full digital UI design
Method of Operation	Key control
Power	DC12V
Output Method	HDMI
Display Frame Rate	1080P @ 60 fps
Scanning Method	Line by line scanning
White Balance	Auto / Manual / One-push control
Exposure	Auto / Manual
Electronic Shutter Speed	1/50s (1/60s) ~ 1/10,000s
Optical Magnification	1~14
Digital Magnification	1~6
Working Distance	100 mm

Magnification (Zoom ratio)	FOV (100 mm Working Distance)	FOV (300 mm Working Distance)
1X	171 x 92 mm	420 x 230 mm
2X	89 x 50 mm	196 x 110 mm
3X	71 x 40 mm	150 x 84 mm
4X	60 x 33 mm	116 x 65 mm
5X	52 x 29 mm	101 x 57 mm
14X	24.3 x 13.5 mm	45.5 x 25 mm

RAD-DM8
All-In-One Microscope

FUSS-FREE HD DIGITAL MICROSCOPE FOR VISUAL INSPECTION AND MEASUREMENT

- Easy-to-use with minimal assembly
- 12″ display with user-friendly software
- Camera with built-in measurement function

Display	12″ High Definition LCD, 1920 x 1080 resolution ~5-15 degrees tilting angle
Zoom Lenses	0.7X - 5.0X
Camera	2.0 Mega Pixels Built-In CMOS camera and measuring software
Sensor Size	1/2″
Storage	USB port available (USB not included)
Output Interface	HDMI, USB 2.0, with support for wireless mouse
Objective	1X, working distance: 105mm
Illumination	LED ring lamp with 56 bulbs and adjustable intensity. Colour temperature: 5000 - 5500 K
Base	Big plane base, lifting range 225mm
Accessories	0.2m HDMI cable, Wireless Mouse

Optical Zoom	Digital Zoom	Diagonal line of true field
0.7X	9.88X	29.82
1X	14.11X	28.88
1.5X	21.17X	13.92
2X	28.23X	10.44
3X	42.34X	6.96
4X	56.46X	5.22
5X	70.57X	4.18

RADIANT Accessories

RAD-HDMI-PRO-M
MEASUREMENT FUNCTION

Model	RAD-HDMI-PRO-IVS	RAD-HDMI-PRO-M
Measurement Function	No	Yes
Sensor Size	1/2.8''	
Resolution	1920 x 1080	
Frame Rate	60fps	
Pixel Size	2.9um x 2.9um	
Sensor Size	2MP	
Storage	USB	
Interface	HDMI	
Power	12V DC	

RAD-MIL-30-2WP
DOUBLE ROW LED

Model	RAD-1WP	RAD-2WP
LED	Japan Type, Single Row	Japan Type, Double Row
LED Colour	Pure White	
Power Input	110 - 240 VAC	
Current	75mA	100mA
Watt	1.8W Max	2.4W Max
Life Rating	50,000 hours	
ID Dimension	66 mm	
Casing Material	Aluminium with Powder Coat	
Light Control	Turning knob with dimmer control	
Working Distance	60 -100 mm	

RAD-MIL-RBL
BACK LIGHT

Model	RAD-RBL
Input	90 - 240 VAC
Watt	4W Max
Diameter	95 mm
Backlight Coverage	72 or 50 mm
Thickness	4.8 mm

RAD-HDMI-RS11 (ST)
11.6" Display

Model	RAD-HDMI-RS11 (ST)
Screen Size	11.6''
Screen Ratio	16:9
Resolution	1920 x 1080
Display Mode	IPS-PRO
Contrast	1000 : 1
Interface	HDMI
Dot Pitch	0.1338mm
Brightness	320cd/m

Intelligent BGA Rework Station

R7220A
Optical Alignment Rework

Product Features:
- Real Time Temperature Monitoring
- Rapid Heating and Cooling
- Optical Alignment System

Model	R7220A
Power Supply	AC 220V ±10% 50/60 Hz
Power	Total power: 5.65KW Upper Temp. Zone: 1.45KW Lower Temp. Zone: 1.2KW IR Preheater: 2.7KW
PCB Size	Max: 412 x 370 mm Min: 6 x 6 mm
BGA Chip Size	Max: 60 x 60 mm Min: 2 x 2 mm
IR Temp. Zone Size	285 x 375 mm
External Temp. Sensor	1PCS
Operation Method	7" HD Touch Screen
Control System	Autonomous Heating Control System V2 (with software copyright)
Display System	15" SD Industrial Display (720P)
Alignment System	2M Pixels SD Digital Imaging System, Automatic Optical Zoom, Laser Red-Dot Indicator
Vacuum Adsorption	Automatic
Alignment Accuracy	±0.02 mm
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±3°C
Feeding Device	No
Positioning	V-Groove with Universal Fixture
Dimensions	685 L x 633 W x 850 H mm
Weight	76 KG

R720A
Optical Alignment Rework

Product Features:
- Carbon Fiber IR Heating Tube
- Dedicated for Repair of Micro/Precision Components
- Automatic Feeding Device with Optional LED Feeder
- HD Display

Model	R720A
Power Supply	AC 220V ±10% 50/60 Hz
Power	Total power: 6.15KW Upper Temp. Zone: 1.45KW Lower Temp. Zone: 1.2KW IR Preheater: 3.2KW Others: 0.2KW
PCB Size	Max: 412 x 370 mm Min: 6 x 6 mm
BGA Chip Size	Max: 60 x 60 mm Min: 0.6 x 0.6 mm
IR Temp. Zone Size	380 x 280 mm
External Temp. Sensor	1PCS
Operation Method	7" HD Touch Screen
Control System	Autonomous Heating Control System V2 (with software copyright)
Display System	15" SD Industrial Display (720P)
Alignment System	2M Pixels HD Digital Imaging System, Automatic Optical Zoom, Laser Red-Dot Indicator
Vacuum Adsorption	Automatic
Alignment Accuracy	±0.01 mm
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±3°C
Feeding Device	Yes
Positioning	V-Groove with Universal Fixture
Dimensions	810 L x 635 W x 870 H mm
Weight	84.5 KG

R730A
Automatic Optical Alignment Rework

Product Features:
- 3 Independently Controlled Temperature Zones
- Mobile IR Temperature Zone
- Large HD Touch Screen

Model	R730A
Power Supply	AC 380V ±10% 50/60 Hz
Power	Total power: 7.75KW Upper Temp. Zone: 1.45KW Lower Temp. Zone: 1.2KW Preheating Temp. Zone: 4.8KW Others: 0.3KW
PCB Size	Max: 632 x 520 mm Min: 6 x 6 mm
BGA Chip Size	Max: 80 x 80 mm Min: 3 x 3 mm
IR Temp. Zone Size	570 x 435 mm
External Temp. Sensor	5PCS
Operation Method	10" HD Large Touch Panel
Control System	Panasonic PLC + Temp. Control Module
Display System	15" HD Industrial Screen (1080P, 16:9)
Alignment System	2M Pixels HD Digital Imaging System, Automatic Optical Zoom, Laser Red-Dot Indicator
Vacuum Adsorption	Automatic
Alignment Accuracy	±0.01 mm
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±1°C
Feeding Device	Yes
Positioning	V-Groove with Universal Fixture
Dimensions	1000 L x 835 W x 960 H mm
Weight	130.5 KG

R7830A
Automatic Optical Alignment Rework

Product Features:
- Automatic Feeding Device
- Joystick Axis Control
- X/Y/Z Axis Automatic Displacement
- HD CCD Optical Alignment System
- High Precision Temperature Control Sensing System
- Vacuum Adsorption and Nitrogen Protection

Model	R7830A
Power Supply	AC 380V ±10% 50/60 Hz
Power	Total power: 7.15KW Upper Temp. Zone: 1.45KW Lower Temp. Zone: 1.2KW Preheating Temp. Zone: 4KW Others: 0.5KW
PCB Size	Max: 565 x 467 mm Min: 6 x 6 mm
BGA Chip Size	Max: 80 x 80 mm Min: 2 x 2 mm
IR Temp. Zone Size	500 x 380 mm
Motion Control	X / Y / Z
External Temp. Sensor	5PCS
Operation Method	8" HD Large Touch Panel
Control System	Panasonic PLC + Temp. Control Module
Display System	15" HD Industrial Screen (1080P, 16:9)
Alignment System	2M Pixels HD Digital Imaging System, Automatic Optical Zoom, Red-Dot Indicator
Vacuum Adsorption	Automatic
Alignment Accuracy	±0.01 mm
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±1°C
Positioning	V-Groove with Universal Fixture
Feeding Device	Yes
Dimensions	810 L x 1100 W x 950 H mm
Weight	151 KG

Intelligent BGA Rework Station

R7850A
Automatic Optical Alignment Rework

Product Features:

- Multi-functional Control Features
- Convenient Temperature Setting and Saving
- Bottom Heating System
- Smoke Purification System
- Optical Alignment Module

Model	R7850A
Power Supply	AC 380V ±10% 50/60 Hz
Power	Total power: 9.85KW Upper Temp. Zone: 1.45KW Lower Temp. Zone: 1.2KW Preheating Temp. Zone: 6.6KW Others: 0.6KW
PCB Size	Max: 635 x 520 mm Min: 6 x 6 mm
BGA Chip Size	Max: 80 x 80 mm Min: 2 x 2 mm
IR Temp. Zone Size	565 x 435 mm
Motion Control	X / Y / Z
External Temp. Sensor	5PCS
Control System	Industrial PC + Motion Control System
Display System	15" HD Industrial Display (1080P, 16:9) + 18.5" SD Display
Alignment System	2M Pixels HD Digital Imaging System, Automatic Optical Zoom, Laser Red-Dot Indicator
Vacuum Adsorption	Automatic
Alignment Accuracy	±0.01 mm
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±1°C
Feeding Device	Yes
Positioning	L-Groove with Universal Fixture (Customisable)
Dimensions	835 L x 960 W x 1620 H mm
Weight	218.5 KG

R8000D
Large Precise Rework Station

Product Features:

- Ultra-large, high-end optical alignment rework station with high precision
- ESD Protected (Compliant with ESD Protection Standards)
- Independent Temperature Control
- Drawer-Loading Design for convenience
- Image Alignment Technology for Placement of Large Objects
- Equipped with High-Power Silent Smoke Extraction System
- Can be connected with MES / SAP
- Suitable for rework of 5G servers and large switch mainboards

Model	R8000D
Power Supply	AC 380V ±10% 50/60 Hz
Power	Total power: 33.8KW Upper Temp. Zone: 2KW Lower Temp. Zone: 2KW Preheating Temp. Zone: 28KW Others: 1.8KW
PCB Size	Max: 850 x 660 mm Min: 50 x 50 mm
External Temp. Sensor	6PCS
Control System	Industrial PC + Servo Motion Control System
Heating Method	Top Heating + Bottom Heating + Mobile IR Heating
Alignment Accuracy	±0.025 mm (X, Y Axis)
Temp. Control	K-Type Thermocouple (Closed-Loop) with Accuracy up to ±1°C Temp. Fluctuation ±5°C with automatic monitoring of heating working status
Positioning	L-Groove with Universal Fixture (Customisable)
Cooling	Wind Cooling
Cooling Rate	Rapid Cooling, 200-100°Single Board Cooling Rate 0.8-1°C/sec
Mounting Pressure	<5N
Dimensions	1671 L x 1771 W x 1928 H mm
Weight	929 KG

R8650C
Smart BGA Rework Station

Advantages:
- Automatic Visual Placement
- Automatic Soldering
- Automatic Desoldering
- Full Automatic Rework
- Can be connected with optional MES Software for Traceability and Temperature Curve Analysis

Product Features:
- Precise Automatic Visual Alignment
- ESD Ionizer
- Precise Motion Platform
- Multi-functional Control Feature
- 3 Independently Programmable Heating Zones
- Bottom Heating System
- Stable Temperature Control
- Suitable for automatic rework of SMD devices on large PCB Boards (eg. 5G Communication Boards)

Model	R8650C
Power Supply	AC 380V ±10% 50/60 Hz
Power	Total power: 22KW Upper Temp. Zone: 2KW Lower Temp. Zone: 2KW Preheating Temp. Zone: 16KW Others: 2KW
PCB Size	Max: 660 x 600 mm Min: 10 x 10 mm
BGA Chip Size	Max: 100 x 100 mm Min: 1 x 1 mm
IR Temp. Zone Size	640 x 520 mm
Motion Control	X / Y / Z
External Temp. Sensor	8PCS
Control System	Industrial PC + Servo Motion Control System
Display System	24" SD Display
Alignment System	2 Million Visual Alignment System
Vacuum Adsorption	Full Automatic
Alignment Accuracy	±0.025 mm
Temp. Control	K-Type Thermocouple (Closed-Loop), Intelligent Temperature Compensation System with Accuracy up to ±1°C
Feeding Device	Semi-Automatic
Positioning	L-Groove with Universal Fixture (Customisable)
Dimensions	1235 L x 1215 W x 1850 H mm
Weight	993.5 KG

Tin Removal and Reballing Machine

ASE2500L
## Full Automatic Inline Detin & Reballing Machine

Product Features

- Non-Contact Single Point Tin Removal, Reballing And Laser Welding
- 3 Sets of CCD Vision System
- 4 Independent Preheating Platforms
- Adjustable Anti-Static Synchronous Belt Components
- Suitable for repairing defective products in semiconductor chip packaging process

Model	ASE2500L
Power	5KW
BGA Size	Max: 27 x 27 Min: 3 x 3
Tray Size	323 x 136 x 8 mm (Standard Industry Tray)
Preheating Table Temp.	≤200 °C (Adjustable)
Tin Removal Head Heater Temp.	≤600 °C (Adjustable)
Tin Removal Residual Amount	≤15%
Tin Removal Nozzle	⌀0.2 - 1 (Replaceable)
Solder Ball Size	0.2 - 0.76 mm
Reballing Accuracy	Deviation < 1/3 Ball Diameter
Reballing Nozzle	⌀0.15 - 0.6 (Replaceable)
Production Yield	>95%
Line Change Time	30 min
Replacing Reballing Nozzle Calibration	CCD + Tool Alignment Sensor Calibration
Dimensions	1420 L x 1280 W x 1850 H mm
Weight	1200 KG

ZQ3500
Automatic BGA Detin & Reballing Rework Station
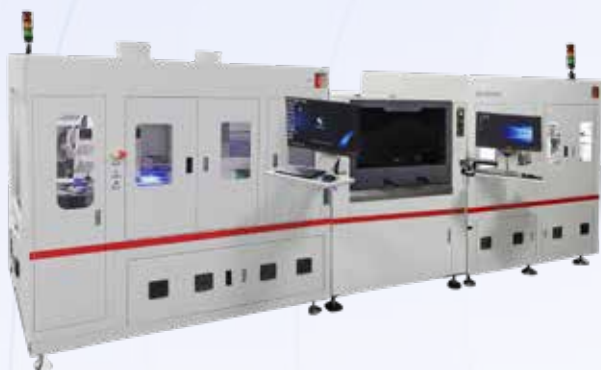
Product Features:

- Fully Automatic BGA Tin Removal and Reballing Capabilities
- Full Repair Line (Loading/Unloading, Visual Positioning Tin And Glue Removal, Polishing, Cleaning, Flux Printing, Reballing, AOI Detection, Sorting)
- Multiple Types of Tin Removal (Ordinary BGA, Adhesive BGA and Device BGA)
- High Speed Polishing and Automatic Cleaning
- CCD Positioning and AOI Detection

Safety Feature: Audio and visual alarm with message prompt. Front acrylic door of e-stop button is equipped with magnetic protection. During operation, opening of door will automatically stop and ground the machine.

Model	ZQ3500
Power Supply	AC 220V ±10% 50/60 Hz
Operation mode	Full Automatic
Loading Method	Left In / Right Out / Online
BGA Size	Max: 100 x 100 mm Min: 5 x 5 mm
Preheating Table Temp.	≤200 °C (Adjustable)
Tin Removal Heating Capacity	≤400 °C (Adjustable)
Tin Removal Residual Amount	≤15%
Line Change Time	30 Min
Solder Ball Size	0.3 - 0.76 mm
Reballing Accuracy	Deviation < 1/3 Ball Diameter
Repeated Positioning Accuracy	±0.01 mm
UPH	>10pcs
Dimensions	1671 L x 1771 W x 1928 H mm
Weight	929 KG
Mode	4 Permissions Mode: Operator / Maintenance / Engineering / Admin

XL5800A
Dual Track 2D X-RAY Automatic Inspection

Product Features:
- Inline
- Automatic Feeding
- Automatic Sorting and Marking of Defective Products (Cut or Jet Mark)
- Automatic Receiving
- High Compatibility with Dual Direction Conveyor Belt
- Reel and Tray Width: 30 - 110mm

Model	XL5800A
Input Power	220V 10A / 110V 15A 50-60Hz
Max Object Width Range	8 - 80 mm
Control System	Industrial WIN10 64 Bits
Dimensions	2740 L x 1100 W x 1970 H mm
Weight	1210 KG

X-RAY Tube Specification	
Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV
Current Range	10 - 200 uA
Max Output Power	8 W
Micro Focus Size	5 - 15 um

XL5800B
Dual Track 2D X-RAY Automatic Inspection

Product Features:
- Inline
- Fully Automatic Inline Inspection of LED Chips, IC, BGA, Semiconductor, SMT, PTU Packaging, Sensors
- Fully Automatic Inline Detection of IGBT Chips
- Synchronous Conveyor Belt for Auto-Adjustment of Track Width
- Fixture size: 70x70 - 200x200 mm

Model	XL5800B
Input Power	220V 10A / 110V 15A 50-60Hz
Max Object Width Range	8 - 80 mm
Control System	Industrial WIN10 64 Bits
Dimensions	850 L x 1100 W x 1970 H mm
Weight	1210 KG

Flat Panel Detector Specification	
Detector Type	TFT Industrial Dynamic FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS

X-RAY Inline Inspection Equipment

XL6500F
Precision Micro Focus Spot X-RAY Inspection

Product Features:
- 3 Segments: Automatic Loading Machine with Scanner, X-RAY Automatic Inspection, Automatic Identifying of Defects
- Fully Automatic Inline Detection of Welding Components
- Programmable and Automatic Recording of Motion Path for Accurate Positioning and Repeatability
- Real-Time Monitoring of Radiation Values

Model	XL6500F
Input Power	220V 10A / 110V 15A 50-60Hz
Track Width	300 - 500 mm Adjustable (Automatic)
Control System	Industrial WIN10 64 Bits
Dimensions	1.5M Board: 6200 L x 1600 W x 2100 H 2M Board: 7700 L x 1600 W x 2100 H mm
Weight	4500 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV
Current Range	10 - 200 uA
Max Output Power	8 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification

Detector Type	TFT Industrial Dynamic FPD
Pixel Matrix	1648 x 1644
Field of View	160 x 160 mm
Resolution	5.11 Lp/mm
Image Frame Rate (1 x 1)	30 FPS
AD Conversion Bit	16 Bits

XL6500
Dual Track 2D X-RAY Automatic Inspection

XL7800
X-RAY Inspection for SMT

Product Features:
- Large Size PCB/PCBA Inspection
- Fully Automatic Inline Inspection of LED Chips, IGBT, IC, BGA, Semiconductor, SMT, PTU Packaging, Sensors etc

Product Features:
- Fully Automatic Inline Detection in MCU-ECU/ICBT
- Fully Automatic Inline Detection of PCB Board and PCBA Solder Joints
- Large Equipment Detection Area: 480 x 550 mm
- Real-Time Monitoring of Radiation Values

Model	XL6500
Input Power	220V 10A / 110V 15A 50-60Hz
Max Sample Size	510 x 650 mm
Control System	IPC WIN10 64 Bits
Dimensions	1600 L x 1700 W x 2100 H mm
Weight	2350 KG

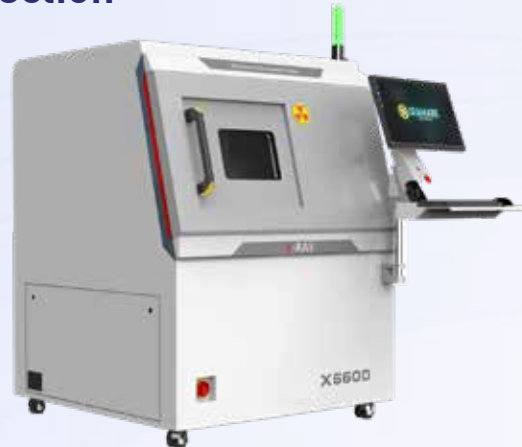|	
Model	XL7800
Input Power	220V ±10% 50-60Hz
Detection Area	480 x 500 mm
Control System	Synnex, Industrial WIN10 64 Bits
Dimensions	1870 L x 2150 W x 2300 H mm
Weight	4950 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV / 130KV
Current Range	10 - 200 uA / 10 - 300 uA
Max Output Power	8 W / 39 W
Micro Focus Size	5 - 15 um

X-RAY Tube Specification

Tube Type	Open Tube X-RAY Source
Voltage Range	160 KV
Current Range	0 - 1000 uA
Max Output Power	10 W
Micro Focus Size	Below 1 um

Flat Panel Detector Specification

Detector Type	Amorphous Silicon FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Digits	16 Bits

Flat Panel Detector Specification

Detector Type	TFT Industrial Dynamic FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

X-RAY Offline Inspection Equipment

X5600
Small Precision Micro Focus X-RAY Inspection

X6600H
Precision Micro Focus X-RAY Inspection

Product Features:
- Small and Compact, Highly Cost Effective
- Suitable for Laboratories, R&D, Quality Checks
- Inspection of Chip, LED, BGA/CSP, Wafer, SOP/QFN, SMT, PTU, Sensors, Connectors and Precision Castings
- Automatic Infrared Navigation and Positioning
- Inclined Multi-Angle Inspection (Tilt/Rotate to 30 °)

Model	X5600
Input Power	220V 10A　50-60Hz
Max Sample Size	280 x 320 mm
Control System	Industrial WIN10 64 Bits
Dimensions	850 L x 1000 W x 1700 H mm
Weight	750 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV
Current Range	10 - 200 uA
Max Output Power	8 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification

Detector Type	Amorphous Silicon FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

Product Features:
- Void Measurement
- Size Measurement
- Defect Inspection
- Automatic Laser Navigation and Positioning
- Real-Time Monitoring of Radiation Values

Model	X6600H
Input Power	220V 10A　50-60Hz
Max Sample Size	540 x 540 mm
Control System	Industrial WIN10 64 Bits
Dimensions	1245 L x 1230 W x 1900 H mm
Weight	1170 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV
Current Range	10 - 200 uA
Max Output Power	8 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification

Detector Type	Amorphous Silicon FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

X6600M/BM
6-Axis Universal Precision Micro Focus X-RAY Inspection

Product Features:
- High Magnification, Multi-Area and Large Area Inspection
- High Precision and Accuracy
- Automatic Calibration
- Large Inspection Platform
- One-Button Automatic Open/Close Door

Model	X6600M/BM
Input Power	220V 10A 50-60Hz
Max Sample Size	620 x 620 mm
Control System	Industrial WIN10 64 Bits
Dimensions	1380 L x 1390 W x 1930 H mm
Weight	1720 KG / 1845 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA
Max Output Power	8 W / 39 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification

Detector Type	IGZO FPD
Pixel Matrix	1648 x 1648
Field of View	160 x 160 mm
Resolution	5.1 Lp/mm
Image Frame Rate (1 x 1)	30 FPS
AD Conversion Bit	16 Bits

X7600
Heavy Duty Precision Micro Focus X-RAY Inspection

Product Features:
- Multi-Angle and Multi-Directional Photography and Inspection
- Reduced Blind Spot Angle
- 360 ° Platform Rotation and 60 ° Tilt
- Color Image and Mapping Navigation

Model	X7600
Input Power	220V 10A 50-60Hz
Platform Size	510 x 510 mm
Control System	Industrial WIN10 64 Bits
Dimensions	1700 L x 1770 W x 1800 H mm
Weight	2050 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA
Max Output Power	8 W / 39 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification

Detector Type	Amorphous Silicon FPD
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

X-RAY Counting System

XC1000
Offline X-RAY Counter
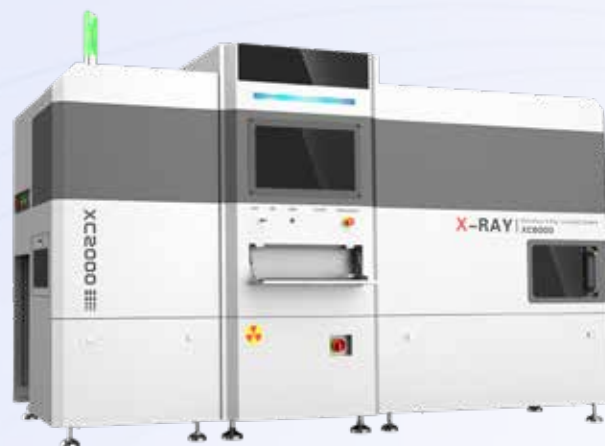
XC2000
Inline X-RAY Counter

Product Features:

- Error-Proof Labeling and Recognition
- Compatible with MES / ERP / WMS Systems, Barcodes and QR Codes
- Suitable for all SMD above 01005
- 99.99% Counting Accuracy
- AI Function for Improved Detection and Efficiency

Product Features:

- Automatic Reel Transfer, Scan, Print and Label
- Automatically Sorting of Defective Products
- 31 Million Pixel Camera
- AI Function for Improved Detection and Efficiency

Model	XC1000
Input Power	220V 10A 50-60Hz
Reel Size	7" - 15"
Reel Height	5 - 80 mm
Min Component Size	01005
Systems	MES / ERP / WMS etc
Label Printing	TSC Industrial Printer
Control System	Industrial WIN10 64 Bits
Dimensions	800 L x 1280 W x 2200 H mm
Weight	790 KG

Model	XC2000
Input Power	220V 16A 50-60Hz
Reel Size	7" - 15"
Reel Height	Below 80 mm
Speed	12-15 seconds/reel
Min Component Size	01005
Systems	MES / ERP etc
Control System	Industrial WIN10 64 Bits
Dimensions	3100 L x 1600 W x 2100 H mm
Weight	2200 KG

XC2100
Inline/Offline X-RAY Counter

Product Features:

- High-Speed (8 seconds/reel)
- 4-Station Turntable Design
- Separate Conveying and Labeling Stations
- Compatible with Barcodes and QR Codes
- Offline Operation Possible

Model	XC2100
Input Power	220V 16A 50-60Hz
Reel Size	7" – 15"
Reel Height	Below 80 mm
Min Component Size	01005
Systems	MES / ERP etc
Control System	Industrial WIN10 64 Bits
Dimensions	1894 L x 1864 W x 2100 H mm
Weight	2200 KG

X-RAY Tube Specification	XC1000, XC2000, XC2100
Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	30 - 80 KV
Current Range	200 - 700 uA / 0 - 1000 uA
Max Output Power	56 W
Micro Focus Size	33 - 50 um / 100 um

Flat Panel Detector Specification	XC1000, XC2000, XC2100
Detector Type	Amorphous Silicon FPD
Pixel Matrix	3072 x 3072
Field of View	430 x 430 mm
Resolution	139 um
Image Frame Rate (1 x 1)	2 FPS
AD Conversion Bit	16 Bits

Battery X-RAY Inspection

XB5100
Offline Semi-Auto Winding Battery X-RAY Inspection

Product Features:

- Suitable for Inspection of Various Battery Process Types
- Analyze Internal Defects
- Measurement Function
- CNC Function
- Automatic Navigation and Positioning
- Real-Time Processing and Storage of Image

Measurement Function:
Linear distance, circle diameter, concentric circles, and distance between points and the center of a circle.

CNC Function:
Memory programming, automatic recording and inspection of motion paths, accurate positioning, convenient for small batch repeated inspection.

Model	XB5100
Input Power	220V 10A 50-60Hz
International Radiation Safety Standards	≤1uSV/hr
Control System	Industrial WIN10 64 Bits
Dimensions	1142 L x 1177 W x 1790 H mm
Weight	1000 KG

Inspection Efficiency and Accuracy	
Inspection Accuracy	15 um
Repetitive Testing Accuracy	±30 um
Inspection Speed	≥1.0/Inspection Point (Exclude Loading/Unloading Time)

X-RAY Tube Specification	
Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA
Max Output Power	8 - 39 W
Micro Focus Size	5 - 15 um

Flat Panel Detector Specification	
Detector Type	Amorphous Silicon FPD (Optional)
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

Stage Parameters	
Max Sample Size	400 x 400 mm
Load Capacity	≤8 KG

XB5200
Offline Semi-Auto Stacking Battery X-RAY Inspection

Product Features:

- Suitable for Inspection of Stacked (Blade) Process Type Batteries
- Conduct Practical Analysis of Positive/Negative Pole Difference or Aluminum Shell Tab Shape
- Automatic Measurement and Analysis
- Easily Identifies Defective Products
- CNC Function

CNC Function:

Memory programming, automatic recording motion path of inspection, accurate positioning, convenient for small batch repeated inspection; Equipped with in-situ retesting function, supporting multiple image formats.

Model	XB5200
Input Power	220V 10A 50-60Hz
International Radiation Safety Standards	≤1uSV/hr
Control System	Industrial WIN10 64 Bits
Dimensions	1910 L x 1450 W x 1900 H mm
Weight	1800 KG

X-RAY Tube Specification

Tube Type	Reflective Sealed Micro Focus X-RAY Source
Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA
Max Output Power	8 - 39 W
Micro Focus Size	5 - 15 um

Stage Parameters

Max Sample Size	900 x 300 mm
Load Capacity	≤10 KG

Inspection Efficiency and Accuracy

Inspection Accuracy	15 um
Repetitive Testing Accuracy	±30 um

Flat Panel Detector Specification

Detector Type	Amorphous Silicon Plate Detector (Optional) Linear Array Detector TDI
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Bit	16 Bits

XB7100
Inline Automatic Winding Power Battery X-RAY Inspection

Product Features:
- Fully Automatic Inspection of Multi-Layer Winding Power Batteries, Automatic Load/Unload for Inspection and Sorting of Defects
- Real-Time Monitoring
- Conformation to Safety Radiation Standards
- Image Processing, Storage and Analysis

Fully Automatic Inspection:
Connect upstream and downstream equipment, conduct inline automatic inspection and judgment, and automatically sort out defective products; Equipped with in-situ retesting function, optional with automatic reflux retesting function.

Adjustable Range of Imagining Distance:
- Diagonal Overhang Inspection
- Wrinkle Inspection

Model	XB7100
Beat	≥26 PPM (2 or 4 Corners)
Excellence Rate	≥99.5%
Equipment Failure Rate	≤2%
Overkill Rate	≤1%
Missed Kill Rate	≤0%
MTBT	≥8
Incoming Material Method	From Logistic Lines
Radiation Safety Standards	≤1uSV/hr
Detector	Flat Panel Detector
Photo Time	≥0.7 Seconds
Dimensions	5460 x 2600 x 2800 mm

Inspection Efficiency and Accuracy	
Inspection Accuracy	15 um
Repetitive Testing Accuracy	±30 um

Other Parameters	
Type Change Time	The replacement time for old varieties is ≤ 2hours/ per person; The replacement time for new varieties is ≤ 4 hours/ per person.
Compatible Ranges	Height:70 - 220 mm Width:80 - 260 mm Thickness:5 - 25 mm (or customized)
Inspection Content	Corner Overhang, Inspection Of Large Surface Fold, Pole Ear Needle Pulling

X-RAY Tube Specification

Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA

XB7200
Inline Stacking Power Battery X-RAY Inspection

Product Features:

- Fully Automatic Inspection of Multi-Layer Stacked Power Batteries, Automatic Load/Unload for Inspection and Sorting of Defects
- Real-Time Monitoring
- Conformation to Safety Radiation Standards
- Image Processing, Storage and Analysis

Fully Automatic Inspection:

Connect upstream and downstream equipment, conduct inline automatic inspection and judgment, and automatically sort out defective products; Equipped with in-situ retesting function, optional with automatic reflux retesting function.

Functions:

- Automatic Code Scanning, MES Interaction and Data Upload
- Corner Overhang, Fold, Crack, Large Surface Folds,
- Tab Pulling Pins.

Model	XB7200
Beat	≥24 PPM (2 or 4 Corners)
Excellence Rate	≥99.5%
Equipment Failure Rate	≤2%
Overkill Rate	≤1.5%
Missed Kill Rate	≤0%
Weighing	Measurement Accuracy ≤0.01g Weighing ≥5 KG
Incoming Material Method	From Logistic Lines
Radiation Safety Standards	≤1uSV/hr
Detector	Linear Array Camera TDI or Flat Panel Detector
Dimensions	8500 x 3200 x 2800 mm

X-RAY Tube Specification

Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA

Inspection Efficiency and Accuracy

Inspection Accuracy	15 um
Repetitive Testing Accuracy	±30 um

Other Parameters

Type Change Time	The replacement time for old varieties is ≤ 2hours/ per person; The replacement time for new varieties is ≤ 4 hours/ per person.
Compatible Ranges	**Square aluminum shell** Length: 80 -220 mm Width: 30 - 200 mm Thickness: 10-25 mm **Blade Battery** Length: 320 - 600 mm Width: 80 - 120 mm Thickness: 10 - 30 mm
Inspection Content	Weighing, Angle Super Hang, Large Area, Wrinkles, Ear Creases, Etc.

Battery X-RAY Inspection

XB7300
Inline Automatic Digital Battery X-RAY Inspection

Product Features:

- Fully Automatic Inspection of Digital Soft Bag Batteries, Automatic Load/Unload for Inspection and Sorting of Defects
- Real-Time Monitoring
- Conformation to Safety Radiation Standards
- Image Processing, Storage and Analysis

Fully Automatic Inspection:

Connect upstream and downstream equipment, conduct inline automatic inspection and judgment, and automatically sort out defective products; Equipped with in-situ retesting function, optional with automatic reflux retesting function.

Function:

- Automatic code scanning, MES interaction, and data upload
- IV. OCV, Thickness, Size, And Corner Position
- Overhang (Positive And Negative Pole Range) Inspection

Model	XB7300
Beat	≥30 PPM (2 or 4 Corners)
Excellence Rate	≥99.5%
Equipment Failure Rate	≤2%
Overkill Rate	≤1%
Missed Kill Rate	≤0%
Voltage Testing Accuracy	±(0.0035%rdg. + 0.0005%fs)
Internal Resistance Testing Accuracy	±(0.5%rdg. + 0.10mΩ)
Thickness Measurement Accuracy	± 0.02mm
Incoming Material Method	Tray Pallets, Loading/Unloading
Radiation Safety Standards	≤1uSV/hr
Detector	Flat Panel Detector
Photo Time	≥0.7 Seconds
Dimensions	8500 x 3200 x 2800 mm

X-RAY Tube Specification

Voltage Range	40 - 90 KV / 40 - 130 KV
Current Range	10 - 200 uA / 10 - 300 uA

Inspection Efficiency and Accuracy

Inspection Accuracy	15 um
Repetitive Testing Accuracy	±30 um

Other Parameters

Type Change Time	The replacement time for old varieties is ≤ 2hours/ per person; The replacement time for new varieties is ≤ 4 hours/ per person.
Compatible Ranges	**Mini** Length: 40 - 160 mm Width: 35 - 120 mm Thickness: 5 - 15 mm **Normal** Length:40 - 160 mm Width:35 - 120 mm Thickness: 5 - 15 mm (or customized)
Inspection Content	IV, OCV, Thickness, Size, Angle Position Overhang (Positive And Negative Pole Range)

XCT8500
Universal X-RAY Inspection System

Adopts YXLON R-RAY Tube Design, Suitable for Quality Inspection, 3D Measurement and Non-Destructive Analysis

Product Features:

- 360 ° Fixed Point Rotating Observation Mode
- Planar CT Function for Inspection of PCB, SMT, IGBT, Wafers Etc
- Cone Beam Function for detection of Sensors, Relays, Micro Motors, Materials and Aluminum Castings
- Optional 2D Void Detection Module
- Optional 3D Measurement and Analysis Module

Model	XCT8500
Input Power	220V 10A 50-60Hz
Max Sample Size	645 x 635 mm
Max Detection Area	500 x 500 mm
Magnification of Image	2500 X
Control System	DELL Precision T7920 Graphics Workstation
Dimensions	1500 L x 1650 W x 2250 H mm
Weight	2950 KG

X-RAY Tube Specification

Tube Type	Open Micro Focus Transmission X-RAY Source
Voltage Range	20 - 160 KV
Current Range	0.01 - 1.0 mA
Max Tube Power	64 W
Max Target Power	15 W
Min Object Distance (FOD)	<300 um
Micro Focus Size	<1 um
Min Defect Detection Capability	<500 nm

Flat Panel Detector Specification

Detector Type	Amorphous Silicon FPD (Optional)
Pixel Matrix	1536 x 1536
Field of View	130 x 130 mm
Resolution	5.8 Lp/mm
Image Frame Rate (1 x 1)	20 FPS
AD Conversion Digits	16 Bits

3D / CT Parameters (Optional)

CT Scan Cycle	20 seconds
CT Reconstruction Time	30 seconds

S3020
2D Automated Optical Inspection

Product Features:

- 12 million pixel high-resolution industrial camera, HD imaging picture quality, high-speed inspection
- RGB tricolor high brightness light source technology, accurately restores the real state of soldering tin, achieves stable inspection to reduce the missing inspection of defective products
- Continuous detection can be performed without affecting the production line during program creation and debugging. After debugging is completed, it is automatically updated to the production line.

Types of Detectable Defects

- Billboard
- Solder Short/Bridging
- Excess Components
- Excess Solder
- Insufficient Solder
- Missing Solder
- Missing Components
- Tomb-stoning
- Breakage
- Offset
- Overturn
- Foreign Material
- Poor Solder Joint
- Solder Balls
- Oxidation Pollution
- Scratches

Model	S3020
Imaging	12MP Industrial Camera (25MP Optional)
Resolution	5μm/10μm/15μm
Detection Speed	0.3s/FOV
Lighting	RGB LED
Power Supply	200V - 230V AC, 50/60 Hz
Power	2.2 KW
Air Pressure	0.4 - 0.6 MPa
PCB Sizes	510 x 480 mm
PCB Thickness	0.4 - 6.0 mm
PCB Edge Clearance	3 mm
Top and Bottom Board Clearance	45 mm
Transport Height	900 ± 50mm
Auxiliary/ Optional Features	Remote Centralized Review, Barcode Reading. OCR Recognition
Weight	1000 KG
Dimensions	1000 L x 1270 W x 1630 H mm

S3030
3D Automated Optical Inspection

Product Features:

- High-precision 3D imaging technology with strong anti-interference technology
- High-precision restoration of IC component lead height reduces occurrence of omission and misjudgments
- Small-angle 4-way projection system to eliminate small spacing occlusion
- 12 million pixel high-resolution industrial camera
- High-speed CoaXPress transmission method, increases the detection speed by 40% compared with the traditional Camera Link
- Standard Z-axis module - can perform large-scale bending board compensation
- Multi-angled light source combined with high-resolution camera and telecentric lens greatly improves detection effect
- Offline programming and debugging without occupying equipment inspection time.

Types of Detectable Defects

- Billboard
- Solder Short/Bridging
- Excess Components
- Excess Solder
- Insufficient Solder
- Missing Solder
- Missing Components
- Tomb-stoning
- Breakage
- Offset
- Overturn
- Foreign Material
- Poor Solder Joint
- Solder Balls
- Oxidation Pollution
- Scratches

Model	S3030
Imaging	12MP Industrial Camera (21MP Optional)
Resolution	5µm/10µm/15µm
Detection Speed	6.7cm^2/s 26.7cm^2/s 60cm^2/s
Lighting	RGBW LED
Power Supply	200V - 230V AC, 50/60 Hz
Power	2.2 KW
Air Pressure	0.4 - 0.6 MPa
PCB Sizes	510 x 460 mm
PCB Thickness	0.4 - 6.0 mm
PCB Edge Clearance	3 mm
Top and Bottom Board Clearance	45 mm
Transport Height	900 ± 50mm
Measurement Height	Max: 30 mm
Auxiliary/ Optional Features	Remote Centralized Review, Barcode Reading, OCR Recognition
Weight	1300 KG
Dimensions	1100 L x 1350 W x 1630 H mm

A.I. Inspection

- Pre-oven Tin Balls
- Gold Surface Scratches
- Gold Surface Contamination
- Tin Adhesion
- Tin Balls
- Foreign Objects

S3100
3D Solder Paste Inspection (SPI)

Product Features:
- High-precision 3D imaging technology, small angle dual-projection system, further eliminating small spacing occlusion
- 12 million pixel high-resolution industrial camera, HD imaging picture quality, high-speed inspection
- High-precision automatic Z-axis module, which can adapt to various complex processes
- Integrable MES system
- Powerful SPC software, rich and accurate statistics

Types of Detectable Defects
- Irregular Shape
- Excess Solder
- Insufficient Solder
- Solder Short/Bridges
- Offset
- Missed Print
- Missing Copper
- Solder Float

Model	S3100
Imaging	12MP Industrial Camera (21MP Optional)
Resolution	5µm/10µm/15µm
Detection Speed	8.6cm²/s 34.3cm²/s 77.1cm²/s
Lighting	RGBW LED
Power Supply	200V - 230V AC, 50/60 Hz
Power	2.2 KW
Air Pressure	0.4 - 0.6 MPa
PCB Sizes	510 x 460 mm
PCB Thickness	0.4 - 6.0 mm
PCB Edge Clearance	3 mm
Top and Bottom Board Clearance	45 mm
Transport Height	900 ± 50mm
Measurement Height	Max: 30 mm
Statistical Graphs and Reports	Histogram, X bar R/S Chart, Cp/Cpk Display, Reproducibility and Repeatability, Daily/Weekly/Monthly/Annual Yield Rate
Auxiliary/ Optional Features	Remote Centralized Review, Barcode Reading
Weight	1300 KG
Dimensions	1100 L x 1350 W x 1630 H mm

2012-BL
Double Hinged Table Top Magnifying Lamp

Lamp Colour	White
Lens Material	Glass
Lens Size	4 Inches
Magnification	3 Diopter + 12 Diopter
Voltage	220V-240V
Standard Mount	Table Top

9006LED-150-5D
Clamp on Magnifying Lamp with Dimmer

Lamp Colour	White
Lens Material	Glass
Lens Size	6 Inches
Magnification	5 Diopter
Voltage	220V-240V
Standard Mount	Clamp-on

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