S-7200 X-RAY Inspection machine Automatic Void Ratio Calculation Software Enabled X-ray NDT Equipment 1300 Mm L 1320 Mm W 1800 Mm H Providing Material Analysis

Our Product Introduction

Basic Information

- Brand Name: WISDOMSHOW
- Certification: CE
- Model Number: S-7200
- Minimum Order Quantity: Radiation Safety License (Yue Huan Fu Zheng [B0774]); Exemption Filing For Radioisotopes And Radiation Devices
- Packaging Details: Standard Export Wooden Case Packaging
- Payment Terms: T/T,Negotiable
- Supply Ability: Approx. 50-100 Units/month

Product Specification

- Dimensions: 1300 Mm (L) × 1320 Mm (W) × 1800 Mm (H)
- Userinterface: 24" HD Monitor, Joystick + Mouse + Keyboard Combined Control
- Resolution: X-ray Tube Focal Spot Size: 5 μm; Geometric Magnification: 150X
- Application: Electronics Manufacturing And Semiconductor Industries: Non-destructive Inspection Of PCB Assembly (BGA, QFP), LED Chips, Batteries, FPC, Electronic Components And Connectors
- Tube Type: HAMAMATSU (Japan) Closed Microfocus X-ray Source
- Power Consumption: Max Power 2.0 KW
- Operatingtemperature: 0°C To 40°C
- Dataoutput: Image Saving And Measurement Data (void

Product Description

Product Description:

The Online X-Ray Inspection Machine represents a cutting-edge solution in the field of industrial quality control, offering unparalleled precision and efficiency for automated inspection processes. Designed specifically to meet the demanding requirements of modern manufacturing environments, this online SMT X-ray machine integrates advanced hardware and self-developed software to deliver comprehensive X-ray transmission inspection capabilities.

At the core of this automatic industrial X-ray machine lies a highly sophisticated self-developed software platform that features CNC automated inspection programming, navigation, and positioning. This intelligent software enables seamless control over the inspection process, allowing users to program complex inspection routines with ease. One of the standout features of the software is its automatic void ratio calculation, which ensures accurate detection and quantification of internal defects such as voids or gaps within components. In addition, the software supports precise dimension measurement, including distance, angle, and circle measurements, to verify component geometries and ensure compliance with design specifications.

A key innovation in this online SMT X-ray machine is its AI-based defect judgment system. Utilizing customizable algorithms, the machine can automatically analyze captured X-ray images to identify defects with high accuracy and consistency. This AI-driven approach significantly reduces the need for manual inspection, accelerates throughput, and enhances overall inspection reliability. The flexibility to customize algorithms means the system can be tailored to specific applications or defect types, making it a versatile X-ray inspection solution suitable for a wide range of industries.

The inspection type employed by this machine is X-ray transmission inspection in 2D, which provides detailed and high-contrast images of internal structures. The detector is designed to be tiltable 45° to the left and right, offering a total viewing angle of 90°. This unique feature allows for enhanced inspection perspectives and better visualization of complex assemblies or components, improving the detection of hidden defects that might be missed by fixed-angle systems.

Data handling is a critical aspect of any industrial inspection system, and this machine excels in this area by offering robust image saving and measurement data storage functions. The system automatically saves X-ray images alongside critical measurement data such as void ratio and dimensional information, facilitating traceability, quality documentation, and detailed analysis. Operators and quality engineers can easily access historical data to track trends, perform root cause analysis, or verify inspection results.

In terms of resolution, the machine is equipped with an X-ray tube featuring a focal spot size of just 5 micrometers, enabling incredibly fine detail to be captured in each inspection. Coupled with a geometric magnification capability of up to 150X, the system can reveal minute defects and subtle component features with exceptional clarity. This high resolution is essential for inspecting miniature and densely packed SMT assemblies where precision is paramount.

Designed for practical use in industrial environments, the operating temperature range of the machine spans from 0°C to 40°C. This ensures reliable performance across a variety of factory settings without requiring specialized climate control. The robust design and environmental adaptability make it a dependable choice for continuous online inspection tasks.

In summary, the Online X-Ray Inspection Machine delivers a comprehensive X-ray inspection solution that combines advanced software, high-resolution imaging, flexible detector positioning, and intelligent defect analysis. Its capabilities as an automatic industrial X-ray machine tailored for SMT and other applications enable manufacturers to enhance product quality, improve process control, and reduce inspection times. For companies seeking a reliable, efficient, and accurate online SMT X-ray machine, this product offers an ideal blend of innovation and practicality.

Features:

Product Name: Online X-Ray Inspection Machine

Automatic industrial X-ray machine designed for efficient and accurate inspections

Data output includes image saving and measurement data storage functions (void ratio, dimensions, etc.)

High resolution with an X-ray tube focal spot size of 5 µm and geometric magnification up to 150X

User interface features a 24" HD monitor with combined control via joystick, mouse, and keyboard

Compact dimensions: 1300 mm (L) * 1320 mm (W) * 1800 mm (H)

Power consumption maximum of 2.0 KW for energy-efficient operation

Ideal X-ray inspection system for various industrial applications

Specialized PCB X-ray machine capabilities for detailed circuit board analysis

Technical Parameters:

Power Consumption	Max Power 2.0 KW
Dimensions	1300 Mm (L) * 1320 Mm (W) * 1800 Mm (H)
Detection Objects	Electronic Components, Semiconductors (BGA, IC, LED, FPC, Connectors, Etc.), Batteries (18650 Battery, Pouch Cell Battery, Etc.); Internal Defect Inspection (voids, Cracks, Broken Wires, Etc.)
Software	Self-developed Software With CNC Automated Inspection Programming, Navigation & Positioning, Automatic Void Ratio Calculation, Dimension Measurement (distance/angle/circle), And AI Defect Judgment (customizable Algorithms)
Operating Temperature	0°C To 40°C

User Interface	24" HD Monitor, Joystick + Mouse + Keyboard Combined Control
Power Supply	220V AC, 50/60 Hz
Tube Type	HAMAMATSU (Japan) Closed Microfocus X-ray Source
Application	Electronics Manufacturing And Semiconductor Industries: Non-destructive Inspection Of PCB Assembly (BGA, QFP), LED Chips, Batteries, FPC, Electronic Components And Connectors
Inspection Type	X-ray Transmission Inspection (2D), Detector Tiltable 45° Left And Right (90° Total Viewing Angle)

Applications:

The WISDOMSHOW S-7200 Online X-Ray Inspection Machine is a cutting-edge X-ray inspection solution designed for diverse industrial applications. Engineered and manufactured in China, this industrial X-ray machine is CE certified and complies with rigorous safety standards, including the Radiation Safety License (Yue Huan Fu Zheng [B0774]) and Exemption Filing for Radioisotopes and Radiation Devices. With a robust supply ability of approximately 50-100 units per month, the S-7200 model is ideal for companies seeking reliable and efficient inline SMT X-ray machine capabilities.

Thanks to its advanced features such as a 24" HD monitor and combined joystick, mouse, and keyboard control, the S-7200 offers an intuitive user interface for seamless operation. Its self-developed software supports CNC automated inspection programming, navigation, and positioning, along with automatic void ratio calculation, precise dimension measurement (distance, angle, circle), and AI-powered defect judgment with customizable algorithms. These attributes make it perfectly suited for quality control in electronics manufacturing, particularly in surface-mount technology (SMT) production lines where inline inspection is critical.

Industrial facilities that require non-destructive testing of complex assemblies, components, and materials will benefit from the S-7200's X-ray transmission inspection (2D) capabilities. The detector's ability to tilt 45° left and right, providing a total viewing angle of 90°, allows for enhanced inspection flexibility and accuracy. This makes it an excellent choice for applications including PCB inspection, solder joint analysis, and defect detection in automotive, aerospace, electronics, and medical device manufacturing.

Packaged in a standard export wooden case, the WISDOMSHOW S-7200 ensures secure delivery and easy installation at customer sites. Its compact dimensions (1300 mm length * 1320 mm width * 1800 mm height) and standard 220V AC power supply make it adaptable to various production environments. Payment terms are flexible and negotiable, typically via T/T, accommodating diverse procurement needs.

Overall, the WISDOMSHOW S-7200 Online X-Ray Inspection Machine stands out as a reliable and sophisticated inline SMT X-ray machine and industrial X-ray machine solution. It caters to industries that demand high precision, efficiency, and safety in X-ray inspection processes, delivering superior performance and enhanced product quality assurance.

Shenzhen Wisdomshow Technology Co.,ltd

+86 18926538696 elysia.li@wdsbga.cn bgaxraymachine.com

No.6,Haosi Western Industry,Shangjing Town,Bao'an District,Shenzhen,China