



## Offline X-Ray Counter Machine with AI Deep Learning Algorithm for 99.99% Accuracy and Radiation Leakage Dose < 1 $\mu$ Sv/h, Counting Speed 6-8 Seconds

Our Product Introduction

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### Basic Information

- Brand Name: Wisdomshow
- Model Number: DS3000



### Product Specification

- Data Storage: Automatically Saves Counting Results, Images, And SPC Statistics; Supports Report Export; Daily Counting Records Automatically Generated With Traceability
- Radiation Safety: Radiation Leakage Dose < 1  $\mu$ Sv/h; Steel-lead-steel Housing; Leaded Glass Front Door; Safety Interlock (automatic Power Cut When Door Opened); Exemption Filing Obtained
- Accuracy Improvement: AI Deep Learning Algorithm, Automatically Improves Recognition Accuracy With More Use; Current Counting Accuracy  $\geq$  99.99%
- Printing Capability: Supports Real-time Printing Of Material Codes And Counting Result Labels (including 1D/2D Barcodes)
- Tube Voltage: 80 KV



### More Images



**Product Description:**

The Offline X-Ray Counter Machine is a state-of-the-art solution designed to enhance the efficiency and accuracy of counting electronic components, particularly surface-mount devices (SMDs). This advanced device is tailored for use in electronics manufacturing, quality control, and inventory management, offering precise and reliable counting capabilities for a wide variety of components. As an X-ray electronic parts counter, it utilizes sophisticated X-ray technology to identify and count components without the need for manual intervention, significantly reducing human error and increasing productivity.

One of the standout features of this X-ray SMD inventory checker is its ability to support a broad range of component sizes, including ultra-small 01005 components and larger parts such as resistors, capacitors, inductors, crystal oscillators, LEDs, diodes, transistors, and multi-pin ICs. This versatility makes the machine exceptionally useful for handling diverse inventories, ensuring that virtually any common electronic part can be accurately counted regardless of size or type.

The Offline X-Ray Counter Machine operates with a tube voltage of 80 KV, which provides optimal X-ray penetration and resolution for detecting and distinguishing components on reels or trays. This voltage level is carefully calibrated to ensure precision while maintaining safety standards. Speaking of safety, the machine incorporates multiple layers of radiation protection to guarantee the wellbeing of operators and the surrounding environment. It features a steel-lead-steel housing that effectively contains radiation, a leaded glass front door for safe viewing, and a safety interlock system that automatically cuts power if the door is opened during operation. Additionally, the product has obtained exemption filing for radiation safety compliance, providing further assurance of its safe use in various workplaces.

Powering the Offline X-Ray Counter Machine is a standard 220 V / 50 Hz power supply, with a total power consumption of 800 W. This power specification ensures stable operation and energy efficiency, making the machine suitable for industrial and commercial environments. Despite its robust capabilities, the device maintains a compact and user-friendly design, facilitating easy installation and integration into existing production lines or inventory systems.

Speed is a critical factor in inventory management, and this X-ray automated reel counter excels in this area by delivering rapid counting results. Whether counting a single tray or up to four 7-inch reels simultaneously, the machine completes the counting process in just 6 to 8 seconds. This swift performance enables manufacturers and warehouse staff to conduct frequent and accurate inventory checks without disrupting workflow or causing delays.

Overall, the Offline X-Ray Counter Machine represents a significant advancement in electronic parts counting technology. By combining high-precision X-ray detection with comprehensive safety features and fast operation, it serves as an indispensable tool for companies looking to streamline their component inventory processes. Whether used as an X-ray electronic parts counter, an X-ray SMD inventory checker, or an X-ray automated reel counter, this machine delivers unparalleled accuracy, efficiency, and safety, making it a valuable asset in the electronics manufacturing and supply chain sectors.

**Features:**

- Product Name: Offline X-Ray Counter Machine
- Tube Voltage: 80 KV
- Data Storage:
  - Automatically saves counting results, images, and SPC statistics
  - Supports report export
  - Daily counting records automatically generated with traceability
- Radiation Safety:
  - Radiation leakage dose < 1 µSv/h
  - Steel-lead-steel housing
  - Leaded glass front door
  - Safety interlock with automatic power cut when door opened
  - Exemption filing obtained
- Accuracy Improvement:
  - AI deep learning algorithm automatically improves recognition accuracy with more use
  - Current counting accuracy ≥ 99.99%
- Component Size: Smallest compatible component: 01005
- Ideal for applications as an X-ray tape reel counter, X-ray automated reel counter, and X-ray SMD component counter

**Technical Parameters:**

Data Storage	Automatically Saves Counting Results, Images, And SPC Statistics; Supports Report Export; Daily Counting Records Automatically Generated With Traceability
User Interface	24" HDMI LCD Monitor + Mouse/keyboard Operation
Tube Voltage	80 KV
Component Size Support	Supports 01005 And Larger SMD Components (resistors, Capacitors, Inductors, Crystal Oscillators, LEDs, Diodes, Transistors, Multi-pin ICs, Etc.)
Counting Speed	Single Tray Or Four 7" Reels: 6-8 Seconds
Control Type	Industrial PC (IPC) Control, Windows 10 64-bit Enterprise Edition, Operated Via Mouse/keyboard
Power	Power Supply: 220 V / 50 Hz; Total Power: 800 W

Component Size	Smallest Compatible Component: 01005
Accuracy Improvement	AI Deep Learning Algorithm, Automatically Improves Recognition Accuracy With More Use; Current Counting Accuracy $\geq 99.99\%$
Tray Diameter	Compatible With 7" To 17" Reels (standard 15", Upgradable To 17"), Minimum 7", Includes Smaller Bulk Materials

## Applications:

The Wisdomshow DS3000 Offline X-Ray Counter Machine is an advanced and reliable solution designed to meet the diverse needs of electronic component counting and inspection. Originating from China, this state-of-the-art device supports a wide range of component sizes, including 01005 and larger SMD components such as resistors, capacitors, inductors, crystal oscillators, LEDs, diodes, transistors, and multi-pin ICs. Its versatility makes it an ideal tool for various application occasions and scenarios within the electronics manufacturing and quality control industries.

One of the primary application occasions for the Wisdomshow DS3000 is in the counting and verification of taped SMD components on 7 to 17-inch reels. The machine excels as an X-ray tape reel counter, providing accurate, efficient, and non-destructive counting of components sealed within tape reels. This capability is crucial for inventory management, production line monitoring, and ensuring component traceability throughout the supply chain. Additionally, it can handle components arranged in JEDEC trays as well as loose or bulk components, making it highly adaptable to different packaging and storage formats.

The PCB reel X-ray counter functionality of the DS3000 is particularly valuable in production environments where precision and speed are essential. By utilizing an 80 KV tube voltage, the machine delivers high-resolution X-ray imaging that allows operators to identify and count components even when they are not visible to the naked eye. This feature enhances inspection accuracy, reduces human error, and improves overall production efficiency. The system's user interface, featuring a 24" HDMI LCD monitor with mouse and keyboard operation, ensures ease of use and quick accessibility to data and controls.

In scenarios where comprehensive data management is required, the Wisdomshow DS3000 stands out by automatically saving counting results, images, and SPC statistics. It supports report export functions and generates daily counting records with traceability, which is essential for quality assurance and compliance purposes. This makes it an indispensable tool for electronics manufacturers, component distributors, and quality control laboratories looking to maintain stringent standards and improve operational workflows.

It is important to note that while the DS3000 is highly effective for taped, tray, and loose components, it is not suitable for overlapping or non-flat-layered materials such as metal springs. Nonetheless, in all applicable scenarios, the Wisdomshow DS3000 Offline X-Ray Counter Machine offers unmatched precision, efficiency, and versatility, making it the preferred choice for PCB reel X-ray counter applications and beyond.



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