

**SMART INVENTORY MANAGEMENT**

**ADL100**

**Fully Automatic Online X-Ray Component Counter**

## Intelligent X-Ray Counting Solution

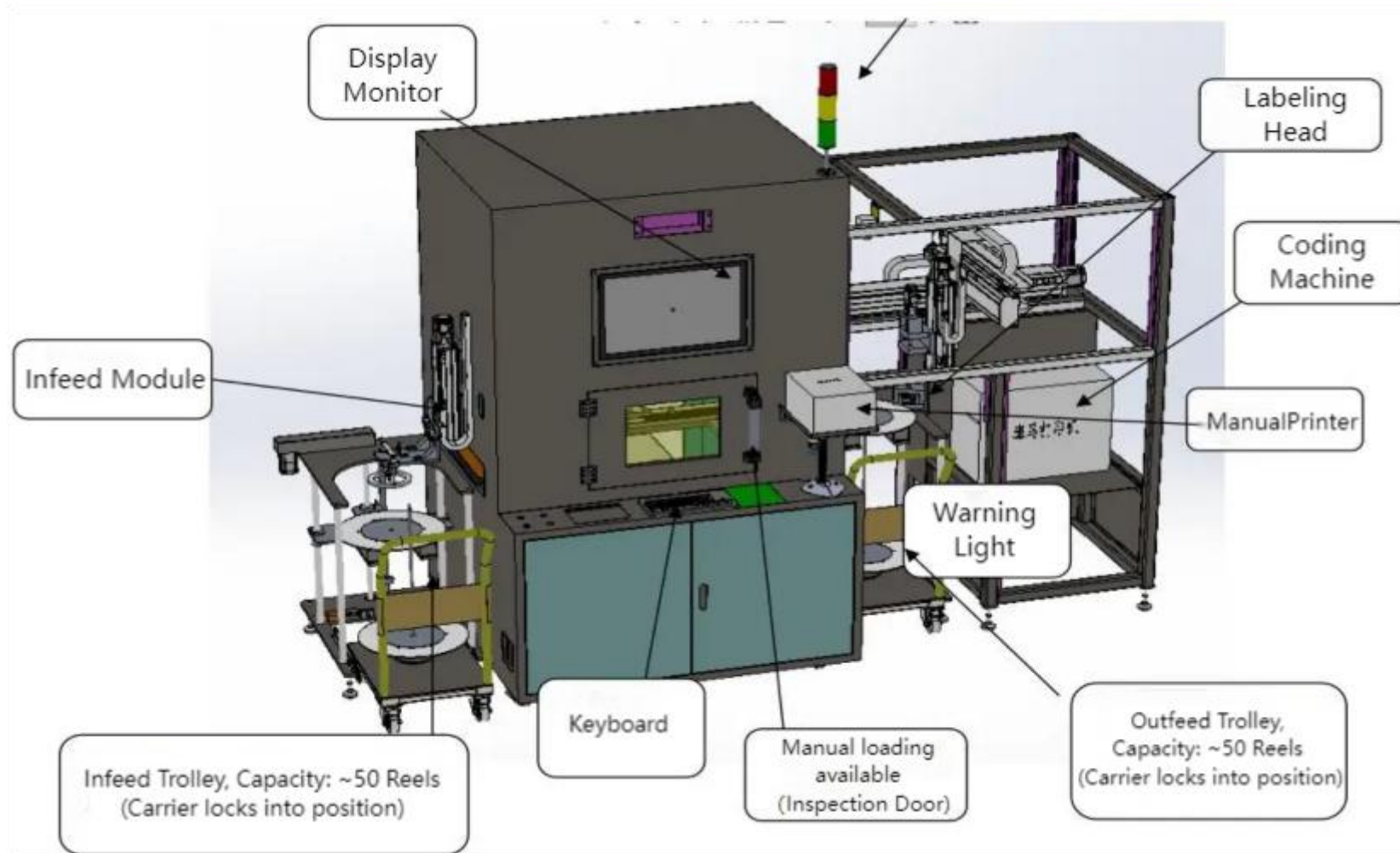
The **ADL100** is a state-of-the-art fully automatic online X-ray component counter designed to revolutionize warehouse management in EMS factories.

- **Advanced Recognition:** Utilizes high-resolution X-ray transmission to count components without breaking moisture-proof seals.
- **Unmatched Efficiency:** Replaces manual labor with a core counting speed of ~7 seconds per reel.
- **Seamless Integration:** Connects directly to MES/ERP systems for real-time inventory synchronization and paperless operations.
- **Safety First:** Fully shielded lead cabinet with radiation leakage < 1  $\mu\text{Sv/h}$ .

## Industrial Aesthetics & Ergonomic Design



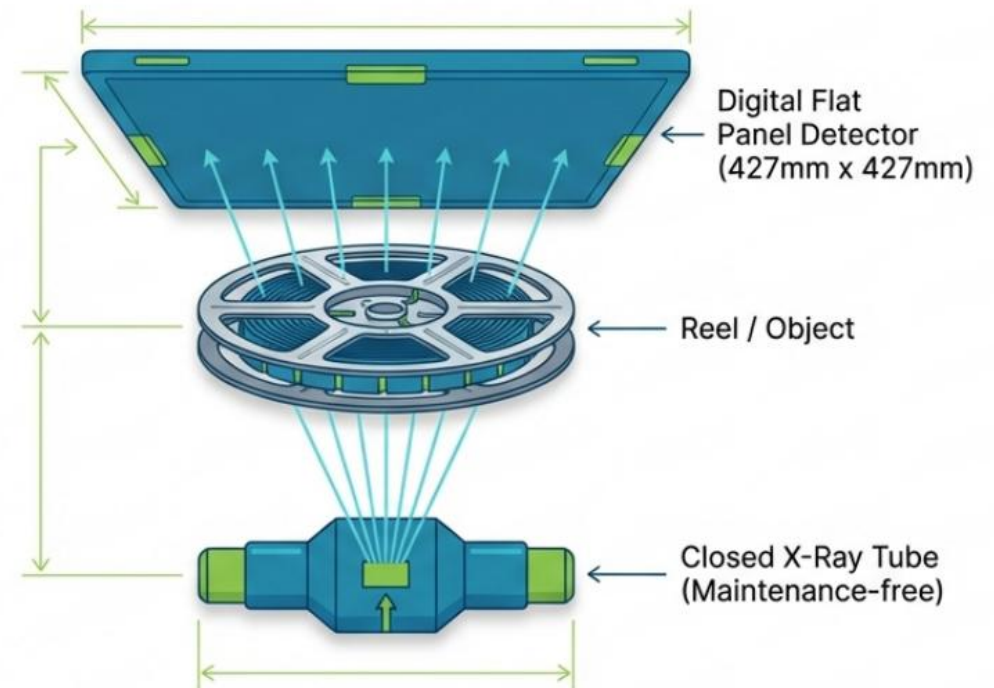
## Precision Engineering & Modular Layout



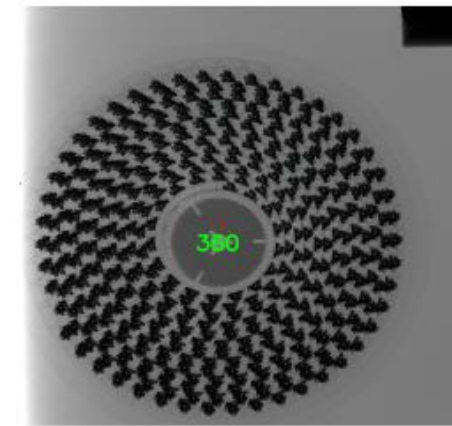
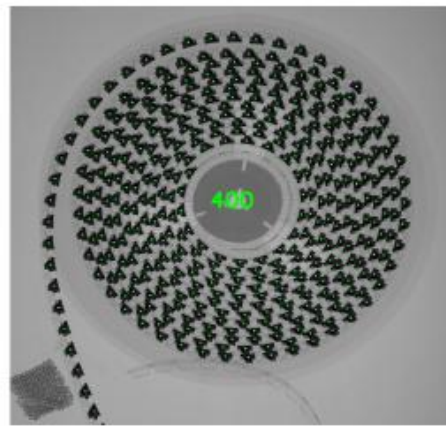
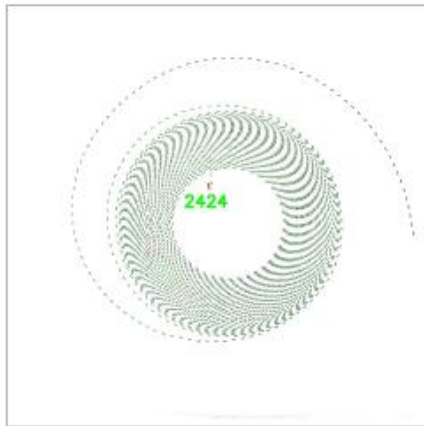
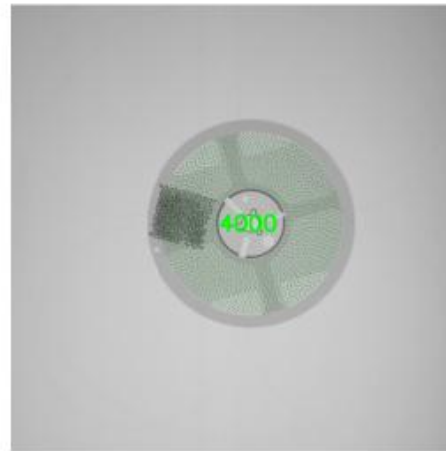
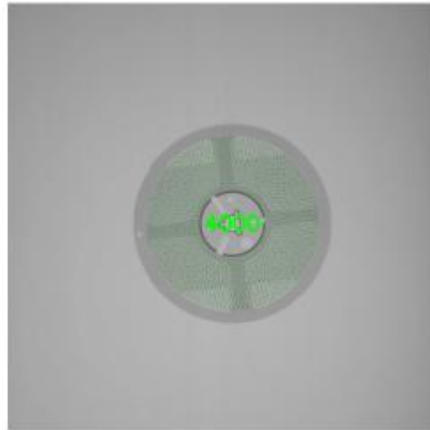
## Advanced Detection & Automatic Labeling

### Workflow Principle:

1. **Loading:** Reels are positioned via the specialized trolley system.
2. **Scanning:** Integrated 1D/2D scanner reads original material codes.
3. **Imaging:** Oxford X-ray tube and 16-bit detector capture high-precision images.
4. **AI Calculation:** Software identifies component types and calculates quantity.
5. **Labeling:** Results are printed and applied to the reel automatically.
6. **Uploading:** Data is sent to the MES system instantaneously.



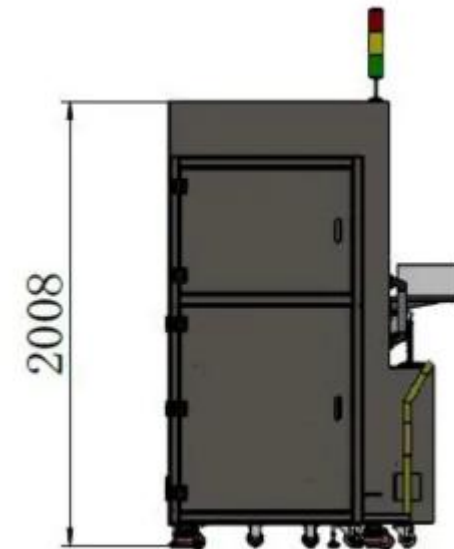
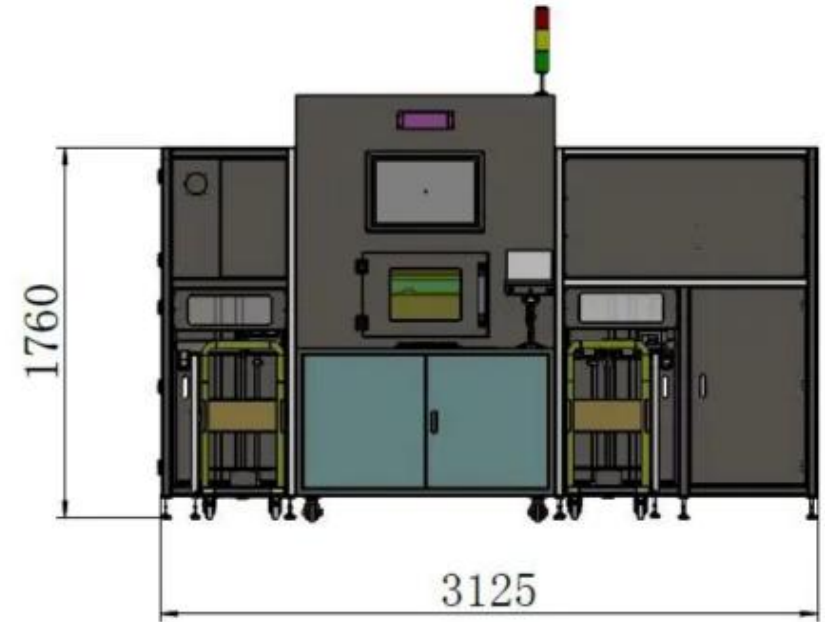
## High-Resolution X-Ray Imaging Analysis



## Comprehensive Technical Specifications (Part 1)

Project	Name	Technical Parameter	Remarks
<b>Equipment Status (整机状态)</b>			
Main Status	<b>Dimensions</b>	Approx. 3125mm * 1200mm * 2000mm	设备尺寸
	<b>Total Weight</b>	Approx. 1200Kg	设备总重
	<b>Power Supply</b>	Single Phase AC220V 32A	电源电压
	<b>Total Power</b>	3.5KW	总功率
Feeding	<b>Loading Method</b>	Trolley with universal wheels for direct positioning (小车直接定位)	
<b>X-Ray System (X射线管)</b>			
X-Ray Source	<b>X-Ray Tube</b>	Oxford (UK)	牛津
	<b>Tube Voltage</b>	80KV	X光管电压
	<b>Tube Current</b>	1mA	X光管电流
	<b>Tube Power</b>	150W	X光管功率
	<b>Focal Spot</b>	140μm	焦点尺寸
<b>Digital Detector (探测器)</b>			
Detector	<b>Imaging Area</b>	427mm * 427mm	成像面积
	<b>Pixel Size</b>	Approx. 140μm	像素尺寸
	<b>Pixel Matrix</b>	3072 * 3072 Pixels	像素矩阵
	<b>Grayscale</b>	16 bits	灰阶

Project	Name	Technical Parameter	Remarks
<b>Inspection Capability (检测项目及尺寸)</b>			
Inspection	<b>Reel Diameter</b>	Max: 380mm   Min: 180mm	料盘最大/最小尺寸
	<b>Reel Thickness</b>	Max: 85mm   Min: 3mm	料盘最大/最小厚度
	<b>Min Component</b>	01005 Compatible	兼容最小元件
	<b>Precision</b>	01005: 99.8%   0201+: 99.9%+	计数精度
Cycle Time	<b>Counting Speed</b>	Core: ~7s   7": 12s   13-15": 15s (Total cycle per reel)	
<b>Software &amp; Others (其它规格)</b>			
Software	<b>Management</b>	SPC statistics, auto-save images and results (支持SPC统计)	
Integration	<b>System Link</b>	Connect to MES, automatic data upload (连接MES系统)	
Safety	<b>Radiation</b>	< 1 μSv/h	辐射泄漏量
<b>Loader/Unloader System (上/下料机规格)</b>			
Loader	<b>Reel Size/H</b>	Dia 7-13-17"   H: 8-50mm	物料大小/高度
	<b>Exchange Speed</b>	5-10 seconds / reel	速度
	<b>Supply Type</b>	Dual station, ~50 reels/station	供料式/每工位存50料
	<b>Stacking Trolley</b>	Auto-continuous feeding to the front-end (垛料小车)	



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# Your Partner in SMT Automation

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