
# RAYSCAN 6550

## Applications

- Briefcase, handbags, mails, shoes, etc. inspection

## Widely used in

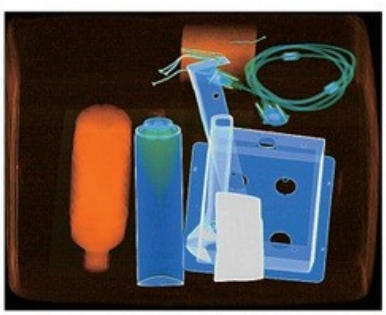
- Airport
- Railway station
- Highway station
- Custom
- Port, government, sports venues

# 【HIGHLIGHTS】

1. Multi-energy, 1.58mmhigh resolution detector, 38mm steel penetration
2. Φ0.0787mm high-definition image
3. Ultra-low X-Ray leakage, complying with domestic & international safety standard
4. Double screen joint display, wider view and longer recognition time
5. Drugs and explosives auto-inspection (RS-DEI)
6. Hi-spot for image best contrast and HDA to alert dangerous items
7. RScale to make sure image in original shape without distortion
8. Temperature and humidity monitoring
9. Modular design, self-diagnosis for important parts like X-Ray generator, detection boards array, light barrier
10. Convenient software and humanized hardware, special keyboard, zoom & move by mouse
11. Threat image projection (RS–TIP) (Optional)
12. Video monitoring system (RS–VMS) (Optional)
13. Energy saving device (Optional)

Edge Enhancement

Inverse



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Rayscan
x-ray inspection systems

PT FAIKA SARANA MULIA
DELIVERING TRUSTED&REALIBLE
FOR YOUR X-RAY SOLUTIONS

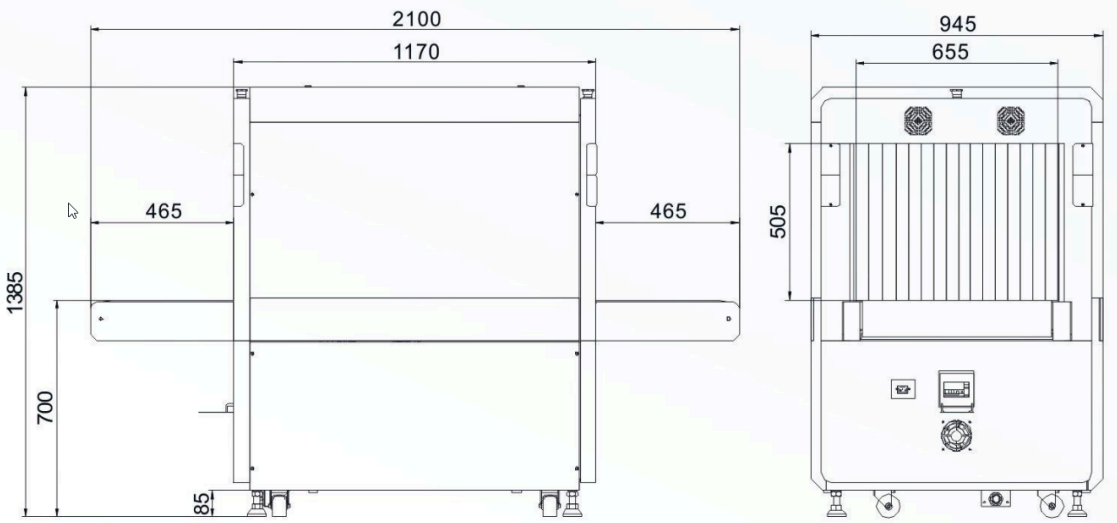
| Specifications | |
|---|---|
| Tunnel Size | 655 mm (W) * 505 mm (H) |
| Conveyor Speed | 0.2 m/s; uo to 0,3 m/s |
| Max. Conveyor Load | 160kg (evenly distributed) |
| System Noise | <60dB |

| Performance Index | |
|---|---|
| Resolution | 0.0787 mm Metal Wire (AWG40) |
| Penetration | 38 mm Steel |
| Leakage | <0.5 μ Sv/H |
| Dose Per Inspection | <1.5 μ Sv |
| Image Resolution | 1280x1024/24Bits |
| Film Safety | ISO 1600 guaranteed |

| Image Processing | | | |
|---|---|---|---|
| Image Processing | Color / Black & White<br>Multi-energy<br>Organic/Mineral Strip<br>Edge Enhancement | Super Enhancement<br>Negative<br>H/L Penetration<br>Gray Level Scanning | Pseudo Color<br>DEI<br>High Density Alarm<br>Hi-Spot |
| Material Classification | Organic: Orange<br>Mineral: Blue | Light Metal and Mixture: Green<br>High Density Material: Black or Red | |
| Zoom | 1-32 Times for any zone, Dynamic, Smooth & Stepless<br>Full screen zoom by one click | | |
| Double-screen Display | Double-screen Joint Display | Color + Black & White Display | Double-screen Copy Display |
| Image Recall | 200 Screens | | |
| Image Storage | 100000 images (at least)<br>Image Simulated Playback | Image Search<br>Image Export | Image Batch Conversion (to .jpg) |
| Additional Features | Customized Shortcuts<br>Image Retrieval<br>Packages Counter<br>Multi-level User Management | Date/time Display`<br>Quick Shutdown<br>Multi-language<br>System Work Time Counter, X-Ray Work Time Counter | User Report Management<br>Maintenance Warning<br>Self-diagnosis |
| Display | High Resolution 17'LCD | | |

| X-Ray Generator | |
|---|---|
| X-Ray Direction | Upward |
| Tube Voltage Tube | 100-160kV (Adjustable) |
| Current Cooling / | 0.3~1.2 mA (Adjustable) |
| Duty Cycle Beam | Sealed Oil Cooling/100% |
| Launch Angle | 80° |

| Installation Data | |
|---|---|
| Storage Temperature/Humidity | -20 C ~ +50 C / 10%~ 95% (Non-condensing) |
| Working Temperature/Humidity | 0 C ~ +45 C / 10% ~ 95% (Non-condensing) |
| Working Voltage | AC 220V(-15%~ +10%), 50Hz / 60Hz ± 3Hz |
| Power | 0. 7 kVA |

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# *AI for your security confidence.* (OPTIONAL)

## *RAYSCAN Security Automated Target Recognitions Systems.*

RS–SATRS system is an intelligent recognition system based on computer deep learning and atomic number analysis technology, which is dedicated to X–ray security inspection scanners. In addition to the system can effectively recognize organic, inorganic, suspected explosives, but also on firearms, ammunition, knives, crossbow and other dangerous goods for automatic recognition. If a dangerous object is detected, the location and type of the dangerous target are blinked directly on the scanned image interface, prompting the operator to perform the necessary intervention to realize the computer–aided recognition of the dangerous objects. The system integrates the latest technological achievements of many industries, greatly reducing the labor intensity of the operators, effectively improving the speed and accuracy of recognition of dangerous goods, for the protection of social security is of great significance.



## SYSTEMS FEATURES

1. **Upgradeable**
   - The system can be upgraded to all existing baggage security inspection systems in RAYS Technology.
   - Installation does not change the inspection process.
   - Automatic recognition results are displayed during image scrolling to assist security inspectors.
2. **Multiple Recognition**
   - Recognizes weapons: pistols, bullets, grenades, controlled knives, police equipment, etc.
   - Recognizes dangerous goods: alcohol, gasoline, explosives, detonators, lighters, etc.
   - Recognizes other user-defined items: containers, power banks, umbrellas, laptops, PADs, mobile phones, wallets, coins, large amounts of banknotes, etc.
   - Users can mark or unmark target objects via software.
   - RAYS supports customization of recognition for other items.
3. **Fast Recognition**
   - Recognition results are displayed on-screen within 1 second after scan completion.
4. **High Precision Recognition**
   - For well-trained targets (e.g., beverage bottles, thermos, glass bottles, metal cans):
     - Detection rate > 95% in daily application scenarios.
     - False alarm rate < 7%.
   - For less-trainable targets (e.g., weapons and ammunition):
     - Detection rate > 85%.
     - False alarm rate < 15%.
   - RAYS offers software upgrade services for training with specific targets and scenarios.
   - Improved model training leads to theoretical limit-level accuracy.
5. **Multiple Alarm Modes**
   - Supports audible alarm, cursor alarm, vibration alarm, etc.
   - Alarm modes are customizable to user requirements.
6. **Customized Service**
   - Recognition systems can be customized based on user needs (e.g., subway-specific, station-specific, customs inspection–specific, logistics–specific, etc.).

## APPLICATIONS, Suitable for:

- Urban rail transit, railway stations, bus stations, airports, border ports, hotels & resorts, logistics, and so on.

## Introduction

In addition to the processing and display of the X-ray inspection images, the traditional means of identifying dangerous targets is completely dependent on the personal ability and experience of security personnel, and has subjective hidden dangers. Especially in places with large traffic, such as subways, stations, etc., as the fatigue of repeated inspections by security personnel increases, the ability to identify suspected dangerous items will be significantly reduced, further increasing this hidden danger. Therefore, automatic recognition of suspicious dangerous targets by machine software becomes a better solution.

RS-SATRS system will automatically mark and audible and visual warnings for common dangerous goods and forbidden items, which is automatically analyzed and identified by X-ray inspection images; thus helping security inspectors to find suspicious dangerous items with specific shape features that can only be detected by manual identification, thereby reducing the labor intensity and work pressure of security inspectors and reducing the subjective dependence on security personnel.

## Performance

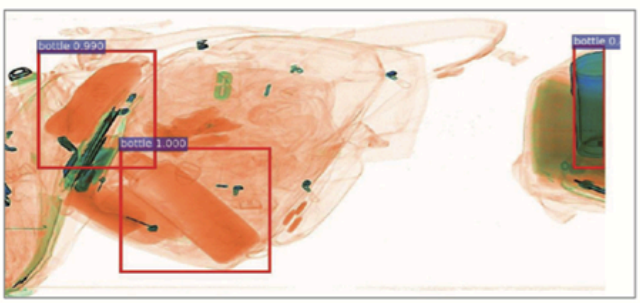
RAYS is based on its own rigorous technical style, according to the international convention of scene classification method, the performance of the test is as follows:

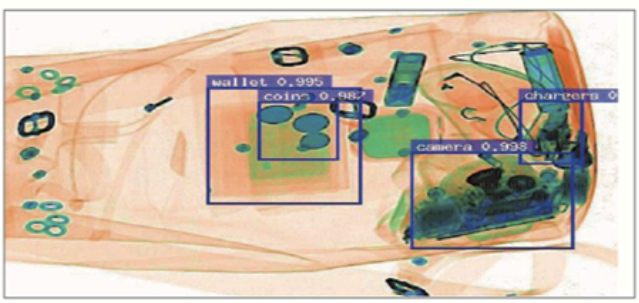
| Target | Simple Scene | Complex Scene |
|---|---|---|
| Big Targets (e.g. rifles, laptops) | 95%+ | 90%+ |
| Medium Target (e.g. pistol, dagger, phone, bottle, etc.) | 90%+ | 80%+ |
| Small Targets (e.g. coins, batteries, etc.)C | 85%+ | 75%+ |

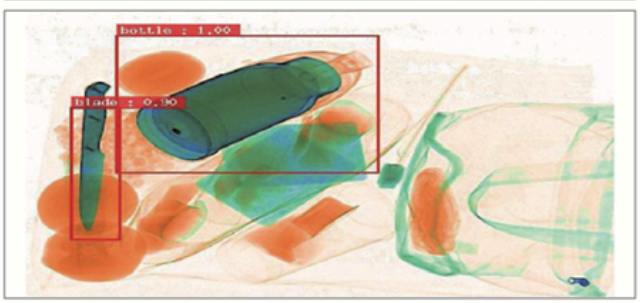
Simple scene: Including paper packaging, no interference, such as small parcels shipped by e-commerce.

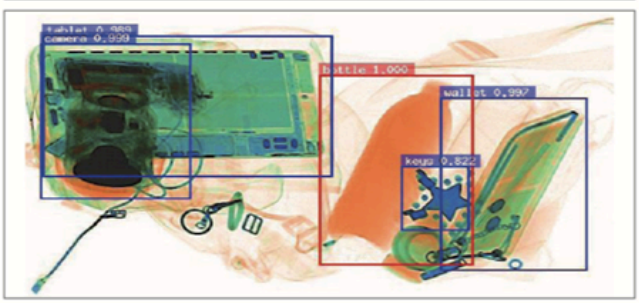
Complex scenes: There are clothes, chargers, headphone cords and other items mixed, such as the daily commuter bag for rail transit.

## Recognition Detection




The bottle was detected and recognized

The camera was detected and recognized

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