Rovinj

**Dedication, Integrity, Innovation, Win-win**
**IOT Application Expert**

**Products**

# RFID Single-Line Single-Box Tunnel Machine Product Specification

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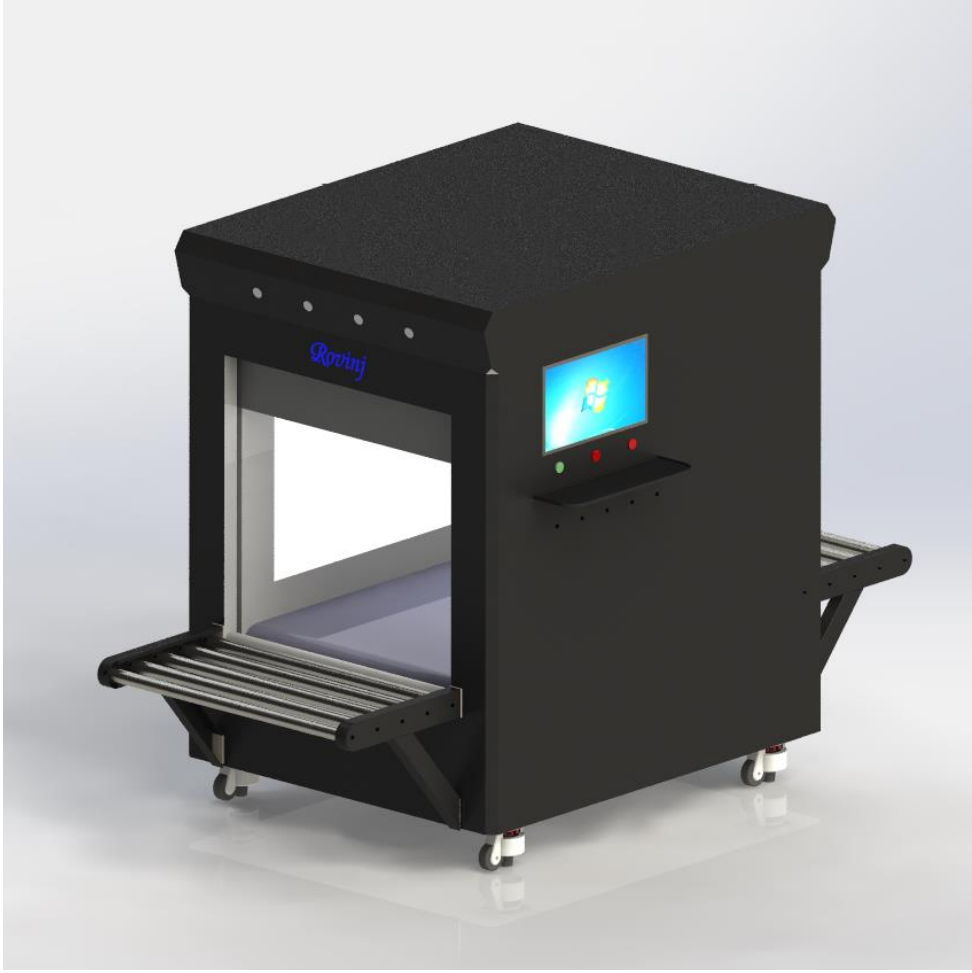
## 1. Product Introduction

ROV-R203 series is an industrial-grade RFID acquisition tunnel, which is independently designed and developed by our company. It takes Radio Frequency Identification Technology as the core and combines mechanical design, multiple sensors, electromagnetic shielding, automated control and other technologies. It completely solves the problems such as tag miss-reading or reading the wrong tag in the supply chain, meeting the requirement of high efficiency and accuracy of product circulation. What's more, the tunnel combines the warehouse management system to completely overcome the shortcomings of barcode management, truly realizing the SKU automated management. And it also saves labor costs and greatly improves work efficiency.

**Industry Application:** The tunnel is mainly used for SKU identification, such as warehouse management of fashion, cleaning, alcohol, electric power industry, comparison of SKU tag and box label, product inventory, etc.

## 2. Picture



## 3. Product Features

- High identification efficiency: It only costs 3-5 seconds to read 200+pcs of tags.
- Professional motion control and mechanical design fully solves the problem of tag miss-reading;
- Compact electromagnetic shielding and radio frequency optimization can eliminate the harm of RF radiation to the human body, and the tag reading accuracy reaches 100% (Depends on the reading environment and performance of tags);
- The industrial computer software can control the function of the whole machine and monitor the running status. There are also external mechanical buttons, which are convenient for the operators to control the working status of the equipment at any time;
- The design of industrial belt conveyor fully solves the belt offset maintenance problem;
- There is access door on both sides, which facilitates the equipment maintenance;
- Optional sorting module for abnormal boxes/goods/items meets the needs of different users. And we support customers to develop secondary software.

## 4. Specification

| Main Specifications | |
|---|---|
| Air Interface Protocol | EPC Global Class1 Gen2/ISO 18000-6C |
| RFID Frequency | 902.75MHz~927.25MHz, channel spacing 500kHz |
| RFID Frequency Mode | Fixed Frequency/Frequency Hopping, 10 Frequency Hopping Points |
| Reader | Domestic (Imported R2000 chip) |
| Reading Efficiency | 3~5 seconds |
| Reading Mode | Motionless |
| Reader Output Power | 1-30dBm |
| Conveyor Speed | Up to 30m/min |
| Conveyor Load Bearing | Up to 50KG |
| Efficiency | 5~6 Boxes/min |

| | |
|---|---|
| Number of Tag Reading | 200+ pcs per box (Depending on the Tag Performance) |
| Operating Mode | Interval T cycle / Continuous Operation / External Trigger |
| Screen | 15.6-inch Resistive Touch (Embedded) |
| Programmable Controller | Domestic |
| Electronic Control System | With Domestic PLC |
| Industrial Computer | J4125 /4GB |
| Photoelectric Switch | 4 Groups/Imported |
| Automatic Conveyor Belt | One Conveyor/ Independent Power Control |
| Material of Conveyor Belt | Leather belt |
| Electronic Control | Domestic PLC |
| Antenna | 4 Groups of 8dbi Antennas |
| Load Capacity | 50kg |
| Adjustable Speed of Conveyor | 0—30m/min |
| Reversible or Not | Reversible Conveyor |
| Opening Speed | 3 Seconds |
| Dock With Production Line or Not | No |
| **Physical Environment** | |
| Model Code | ROV-R203 |
| Overall Size (mm) | 2640 (length) × 1120 (width) × 1700 (height) |
| Inner Size (mm) | 1200 (length) × 880 (width) × 780 (height) |
| Maximum Passable Size of Box (mm) | 800 (length) × 800 (width) × 600 (height) |
| Total Weight | About 350KG |
| Operating Temperature | -20℃ - 60℃ |
| Storage temperature | -10℃~60℃ |
| Operating Humidity | 20 - 95% (non-condensing) |

| | |
|---|---|
| Work Voltage | 220VAC (±10%) 50±3HZ |
| Power | 350W |
| Enclosure Material | Spray-paint Carbon Steel |
| Shielding Performance | 30-50CM |