



RUISING TECHNOLOGY CO., (HK) LTD

睿昇科技(香港)有限公司

  +852 6876 5793

 sales@rstc-hk.com

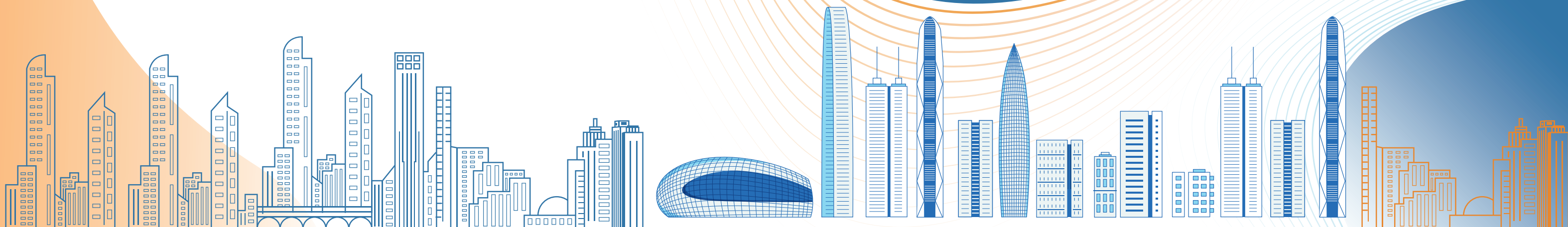
  +86 133 1695 0846

 +86 755 2692 2853

www.rstchk.com 

Product Catalogs

RUISING TECHNOLOGY
COMPANY (HONG KONG) LIMITED





ABOUT US

With 10+ years of expertise, RSTC is a leading RFID hardware & software provider. Our service centre is situated in Hong Kong, and our manufacturing facilities are based in Longhua, Shenzhen. RSTC supplies RFID stock and asset management, personnel management, and live RFID tracking solutions for industries spanning warehousing, healthcare, production, rail safety, customs clearance and asset monitoring.

Our major customers include MTRCL, Hong Kong Government, PCCW, and other multinational corporations. Our fast turnaround times, advanced technical capability and outstanding client service have secured the trust of clients across 30+ countries.

content



UHF RFID Product Series 1

UHF RFID Reader / 3

UHF RFID Antenna / 11

UHF RFID Tag / 13

2.45GHz Active RFID Series 26

2.45GHz RFID Reader / 28

2.45GHz Active RFID Tag / 34

RFID Applications 38



UHF RFID Products

A wireless technology that uses radio waves to identify and track objects or assets without the need for a power source or battery in the tagged items. It operates in the ultra-high frequency range, typically between 860MHz and 960MHz.



Applications



Fixed Four-port Passive UHF RFID Reader

RS-F905



RS-F905 is a new designed four ports UHF RFID Reader with antennas and Impinj E710 chipset, supports up to 25 meters long range reading.

It is widely used for asset management, inventory/warehouse management, vehicle ETC management etc.

Features

- Using Impinj’s latest E710 module.
- Integrated 4-way SMA radio frequency interface to meet a larger reading range.
- The modular design of the whole machine supports a variety of In addition to the existing hardware interfaces, other types can be customized for users to meet the differentiated needs of RFID integration.

Application



Asset Tracking Management



Warehouse Logistics Management



Parking Control And Charge Management



Personnel Attendance Management

Specifications

Electrical Specifications	
Frequency	North America: 902MHz~928MHz Europe: 865MHz~868MHz China: 920MHz~925MHz
Chip Set	Impinj Indy E710 chip as RF transceiver
Frequency Hopping	FHSS/ fixed frequency, set by software
Protocol	EPC C1 G2 (ISO18000-6C)
Output Power	5dBm~33dBm stepping by 1dBm
RF Connector	4 SMA interfaces
Communicating Interface	RJ45, RS232 or RS485
Optional Interfaces	4G/WIFI
Power Supply	DC 9~24V, PoE (optional)
Input /Output	2 relay outputs 2 optical isolation inputs
Receive Sensitivity	< -80 dBm
Reading Distance	Up to 25 meters (depending on antenna configuration)
Mechanical Specifications	
Product Dimension	210mmx132mmx34mm
Operating Temperature	-20℃~+60℃
Storage Temperature	-30℃~+70℃
IP Rating	IP54 (With the use of a waterproof housing, can reach IP65)
Operating Humidity	5%~95% non-condensing
Certification	
Compliance To	CE、FCC、EMC(EN 50121-4、 EN 61000-6-4)、 EN 60950-1、 OFCA

Fixed Four-port Passive UHF RFID Reader

RS-PR01



RS-PR01 is a new designed fixed UHF RFID reader with four ports for antennas and Impinj E710 chipset. It supports multiple tags reading up to 700 times/second, 0-15 meters long range reading. It is widely used for asset management, inventory/warehouse management, vehicle ETC management etc.

Features

- UHF RFID (Impinj E710) fast and accurate reading rate
- Multi-reader operating under intensive environment
- 18000-6B/6C full compatible
- Dual CPU Architecture
- RS232/RJ45/GPIO
- Heat Dispersion

Application



Warehouse Logistics Management



Livestock Management



Library Archive Management



IT Asset Nventory Management

Specifications

Electrical Specifications	
Frequency	North America: 902MHz~928MHz Europe: 865MHz~868MHz China: 920MHz~925MHz
Chip set	Impinj Indy E710 chip as RF transceiver
Protocol	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Output Power	0 – 33dBm
RF Connector	4 TNC/RP-TNC
Communicating Interface	RS-232 or TCP/IP
Power Supply	DC 12V ~ 18V
Input /Output	2 input optical coupling 2 output coupling
Receive Sensitivity	< -85 dBm
Reading Distance	0-15 meters (depending on antenna configuration)
Mechanical Specifications	
Product Dimension	270mmx160mmx32mm
Operating Temperature	– 20°C~+85°C
Storage Temperature	– 20°C~+85°C
IP Rating	IP54
Operating Humidity	5%RH – 95%RH (non -condensing)

Fixed Four-port Passive UHF RFID Reader

RS-PR03

RS-PR03 is a four-port, long-range industrial-grade RFID reader operating in the UHF band, developed based on the Impinj R2000 chip. The reader is equipped with a Linux operating system and features high multi-tag identification efficiency and stable performance under extreme temperatures.



It is widely used in asset management, warehousing and logistics, library systems, as well as vehicle and personnel management.

Features

- 902-928Mhz FCC,866-868Mhz CE, other frequency selectable
- Connect 4 antennas external, SMA connector
- Support standard RS-232, USB, Ethernet communication interfaces
- PoE (optional)
- Build in Linux OS, indy R2000 RFID chip, fast and accurate reading rate
- Multi-reader operating under intensive environment
- Upgrade firmware online

Application



Specifications

Electrical Specifications	
Frequency	North America: 902MHz~928MHz Europe: 865MHz~868MHz China: 920MHz~925MHz
Chip Set	Impinj Indy R2000 chip as RF transceiver
Protocol	EPC Class 1 Gen 2 (ISO18000-6C)
Output Power	+20dBm ~ +30dBm@50Ωload, 1dBm each step
RF Connector	4 channel SMA
Communicating Interface	RS-232 / USB2.0 / Ethernet
Power Supply	DC 12V input, PoE (optional)
Input /Output	2-channel Relay Output, 2-channel 12V level signal output, 2-channel photoelectric isolation input
Receive Sensitivity	< -70 dBm
Reading Distance	0~15meters (depending on antenna configuration)
Mechanical Specifications	
Product Dimension	270mm×165mm×42mm
Operating Temperature	– 40°C~+ 60°C
Storage Temperature	– 60°C~+ 80°C
IP Rating	IP54
Operating Humidity	5%RH – 95%RH (non -condensing)

UHF RFID Integrated Reader

UHF integrated reader with built-in circular/linear polarization antenna, the reading distance can reach up to 25m and user-friendly, is widely used in inventory, warehouse, logistics and vehicle access management.



Long Range UHF RFID Integrated Readers



Middle Range UHF RFID Integrated Readers

Features

- Based on Impinj R2000/E710 chip
- Circular/linear polarization antenna(optional)
- Support standard RS-232,10M/100M Ethernet interfaces. Multi groups of I/O interfaces (optional)
- Strong API user interface
- High durability in tough environment

Case Pictures



Asset Tracking Management



Warehouse Logistics Management



Parking Control And Charge Management



Personnel Attendance Management

Applications



Warehouse



Production Line



Logistics



Parking



Manufacture

Specifications

Electrical Specifications	
Frequency	North America: 902MHz~928MHz Europe: 865MHz~868MHz China: 920MHz~925MHz
Chip set	Impinj R2000/E 710 chip (optional)
Protocol	EPC Class 1 Gen 2 (ISO18000-6C)
Antenna Gain	Built-in 9dB/12dBii linear or circular polarization antenna (optional)
Communicating Interface	RS-232,10M/100M Ethernet interfaces
Optional Interfaces	RS-485 , Wiegand26/34
Power Supply	DC 12V or PoE (optional)
Power Assumption	1W (Standby), 9W (Working)
Input/Output	Two group relay outputs or two group level detection inputs (optional)
Reading Distance	0~25m (depending on antenna and tag type)
Mechanical Specifications	
Product Dimension	9dBi: 260mm×260mm×100mm (support customization) 12dBi: 445mm×445mm×100mm (support customization)
Colour	White (support customization)
Material	ABS Industrial casing
Operating/Storage Temperature	-40℃~+60℃ / -60℃~+80℃
IP Rating	IP65

UHF RFID Antennas

Circular and linear polarized UHF RFID antenna, suitable for UHF RFID applications, such as entrance guard, warehouse management, logistics and retail item management.

Electrical Properties

It is a general antenna for UHF RFID applications with high gain and low VSWR.

Mechanical Properties

Pleasing appearance with small size, double waterproof design with waterproof ring and silica gel, rib reinforcement design for shell, suitable for various severe environments.

Applications


Access control


Warehousing


Logistics


Retail


Livestock


Manufacture

Case Pictures


Warehouse Logistics Management


Stock Management


Laundry Management


Access Control System

Specifications



Model No.	RS-B07CA01	RS-B09CA01	RS-B12LA01
Description	7dBi Circular UHF RFID Antenna	9dBi Circular UHF RFID Antenna	12dBi Linear UHF RFID Antenna
Frequency	902MHz~928MHz/865~868MHz		
Gain	7dBi	9dBi	12dBi
H side HPBW	70	70	40
E side HPBW	70	70	40
Polarization	Circular Polarization	Circular Polarization	Linear Polarization
VSWR	≤1.3:1	≤1.3:1	≤1.3:1
Impedance	50±1Ω	50±1Ω	50±1Ω
Connector Type	N-Female (one input port)		

UHF RFID Passive Tags

UHF RFID passive tags offer consistency and reliability in outdoor and industrial applications, suitable for assets management, equipment management, industrial manufacturing, warehouse, logistics, retails, railway management etc.

Case Pictures



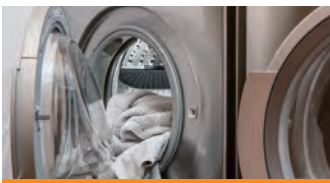
Metallic Asset Management



Inventory Management



Apparel Management



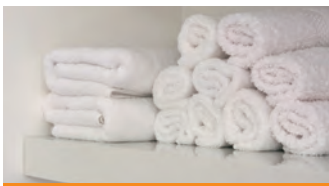
Dry Cleaners Management



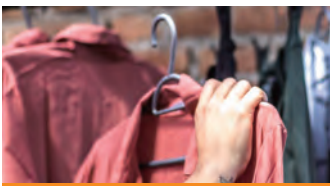
Automotive Components Tracking



IT Asset Tracking



Hotel Linen Management



Working Clothes Management



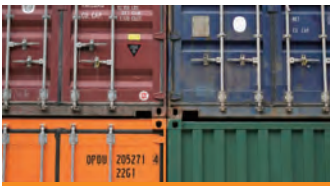
OIL & GAS & Mining



Industry Equipment



Logistics And Warehouse



Cargo Container Tracking

Printable and Flexible UHF On-metal Label

Making use of latest material technology, the anti-metal tags can be thin, flexible and printable. They have good performance both on metal surface and liquid container due to the special circuit and antenna design. It is a perfect choice for assets management of metallic goods, goods with liquid and metallic containers, such as assets in metal shelf, shipping container, industrial assets, electronics assets, IT assets, cosmetics, wine, etc. Just like regular RFID labels, it could be encoded the preset data by RFID printer and printed on the tags, such as logo, barcode, automatically and simultaneously.



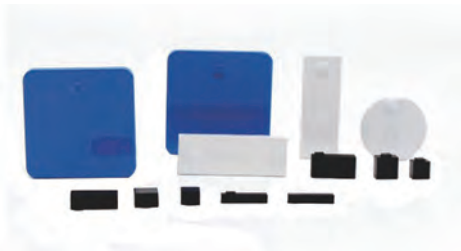
Model	Dimensions	Chip Type	Read Range (2W ERP FCC)	Read Range (2W ERP ETSI)
RS-PT02	95x22x1.25mm	Impinj Monza R6 Series	10m,on metal	8m,on metal
			12m,off metal	7m,off metal
RS-PT16	30x15x1.25mm	NXP Ucode Series	2.7m,on metal	1.8m,on metal
RS-PT26	100x40x1mm	NXP Ucode Series	14m,on metal	12m, on metal
			13m,in air	8.5m, in air
RS-PT27	86x54x1.25mm	Impinj Monza R6 Series	19m,on metal	/
			14m,in air	
RS-PT33	30x6x1mm	NXP Ucode Series	2.5m,on metal	1.8m, on metal
RS-PT34	65x35x1.25mm	NXP Ucode Series	15m,on metal	13m,on metal
			8m,in air	6m,in air
RS-PT35	60x25x1mm	NXP Ucode Series	9.5m,on metal	10.5m,on metal
			4.5m,in air	5.5m,in air
RS-PT36	65x35x1.25mm	Impinj Monza R6 Series	7.5m,on metal	5m,on metal
			3m,off metal	1.8m,off metal
RS-PT37	55x15x1.25mm	Impinj Monza R6 Series	5.5m,on metal	3.5m,on metal
			2.8m,off metal	2.0m,off metal
RS-PT38	30x15x1.25mm	Impinj Monza R6 Series	0.9m,on metal	0.8m,on metal
RS-PT39	103x54x1.25mm	Impinj Monza 4 Series	/	11m,on metal
				10.5m,in air
RS-PT40	60x25x1mm	Impin Monza R6 Series	5m,on metal	5m,on metal
			2m,off metal	2m,off metal
RS-PT41	80x30x1mm	Impin Monza R6 Series	8m,on metal	6m,on metal
			4m,off metal	3m,off metal
RS-PT42	80x40x1mm	Impin Monza R6 Series	8m,on metal	/
			4m,off metal	

Model	Dimensions	Chip Type	Read Range (2W ERP FCC)	Read Range (2W ERP ETSI)
RS-PT42-1	80x20x1mm	Impinj Monza R6 Series	7.4m, on metal	7.6m,on metal
RS-PT43	60x25x1mm	Impin Monza R6 Series	6.3m,on metal	5.0m,on metal
RS-PT46	64x6x1mm	NXP Ucode Series	4.0m,on metal 4.5m,on liquid	3.5m,on metal 6.5m,on liquid
RS-PT51	70x40x1mm	Impin Monza 4 Series	6m,on metal	/
	70x30x1mm			
RS-PT52	65x35x1.25mm	Impin Monza 4 Series	8m,on metal	/
RS-PT53	80x50x1mm	Impin Monza R6 Series	7m,on metal	/
RS-PT54	92x30x1mm	Impin Monza R6 Series	10m,on metal	/
			4m,off metal	
RS-PT55	50x22.5x1.25mm	Impin Monza R6 Series	/	/
RS-PT56	100x13x1mm	Impinj Monza R6 Series	6.0m,on metal	6.5m,on metal
RS-PT57	48x4x1mm	NXP Ucode Series	/	2m,on metal 5m,on liquid
RS-PT58	60x40x1mm	Alien Higgs 9	9m,on metal	/
RS-PT58-R	60x40x1.25mm	Impin Monza R6 Series	11.4m,on metal	/
RS-PT60	70x30x0.6mm	Impin Monza R6 Series	6.5m,on metal	/
RS-PT63	66x44x1.25mm	Impin Monza R6 Series	15m,on metal	/
RS-PT62	103x52x1 mm	Impinj Monza R6 Series	7m,on metal	5m,on metal
			3m,off metal	2m,in air
RS-PT66	95x22x1.25mm	NXP Ucode Series	16m,on metal	14m,on metal
RS-PT69	80x40x1mm	NXP Ucode Series	11m,on metal	11m,on metal
			6.0m,in air	6.0m,in air
RS-PT71	70x30x1mm	NXP Ucode Series	12.5m, on metal	/
RS-PT137	60x25x1mm	NXP Ucode Series	5.2m, on metal	4.4m, on metal
RS-PT138	70x30x0.4mm	Impinj Monza 830	4.5m,on metal	4.0m,on metal

For more details, please visit our website.

UHF Ceramic Tag

The ceramic tag can be embedded in metal and can withstand repeated autoclave cycles. It is designed to meet FDA requirements, and ATEX certified. It is an ideal solution for tracking small tools such as scalpel, bearing, automotive spare parts, etc. It is compliance to safety requirements in medical applications and have been tested to sustain high heat in repeated autoclave cycles and industrial chemical washes that normally harsh for RFID devices.



RFID Apparel Tag

- Model: RS-PT98
- Weight: 1.4g
- Dimensions: 110x37x0.35mm
- Material: ABS
- Chip Type: Alien Higgs 3
- Read Range: 8m(US),7m(EU)
- Application: Logistics sorting/Apparel retail and management/ Assets tracking management, etc



RFID Jewelry Tag

- Model: RS-PT141
- Dimensions: 68x13mm
- Read Range: 4.8m
- Chip Type: Impinj Monza R6-P
- Application: Jewelry Security management/Glasses Control Tracking/Bag Tracking management, etc



RFID Tire Tags

- Model: RS-PT14-1
- Weight: 5.0g
- Dimensions: 95x35x2mm
- Material: Rubber
- Chip Type: Alien Higgs 3/9
- Read Range: 1.0m
- Application: Bus tire tracking/ Truck tire tracking/Automobile factory tire tracking.etc



- Model: RS-PT14-2
- Weight: 4.7g
- Dimensions: 85x38x2mm
- Material: Rubber
- Chip Type: Alien Higgs 3/9
- Read Range: 0.9m
- Application: Jewelry Security management/Glasses Control Tracking/Bag Tracking management, etc



UHF Special Tag

- Model: RS-PT112
- Weight: 6.9g
- Dimensions: 345x28x4.5mm
- Material: ABS/Nylon
- Chip Type: NXP Ucode 8/9/9xe
- Read Range: 8.5m
- Application: Asset Tracking/Pallet Management/Food Hygiene Control, etc



For more details, please visit our website.

UHF LaundryTag *Moduseal Series*

Each piece of linen is assigned a unique RFID digital identity, utilizing industry-leading data collection equipment to collect real-time status information on the linens at every handover stage and every washing process. Relying on data analysis tools to achieve full-process and full-lifecycle management of the linens, it helps operators to improve the circulation efficiency of linens, estimate the current lifespan of the linen, make informed procurement plans, reduce labor costs, and enhance customer satisfaction.



- | | |
|-------------------------|--|
| • Model: RS-PT14 | • Read Range (Fixed Reader): US: > 11.5 m; EU: > 12.5 m |
| • Dimension: 70 x 15 mm | • Read Range (Handheld Reader): US: > 8.5 m; EU: > 7.5 m |



- | | |
|-------------------------|---|
| • Model: RS-PT115 | • Read Range (Fixed Reader): > 10.5 m |
| • Dimension: 86 x 16 mm | • Read Range (Handheld Reader): > 8.0 m |



- | | |
|-------------------------|--|
| • Model: RS-PT118 | • Read Range (Fixed Reader): US: > 9.5 m; EU: > 7.5 m |
| • Dimension: 58 x 15 mm | • Read Range (Handheld Reader): US: > 7.5 m; EU: > 7.0 m |



- | | |
|-------------------------|--|
| • Model: RS-PT119 | • Read Range (Fixed Reader): US: > 8.7 m; EU: > 8.4 m |
| • Dimension: 50 x 12 mm | • Read Range (Handheld Reader): US: > 8.0 m; EU: > 3.5 m |



- | | |
|-------------------------|--|
| • Model: RS-PT120 | • Read Range (Fixed Reader): US: > 8.7 m; EU: > 7.7 m |
| • Dimension: 35 x 15 mm | • Read Range (Handheld Reader): US: > 6.0 m; EU: > 7.0 m |



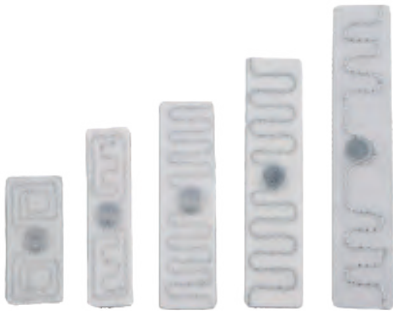
- | | |
|-------------------------|--|
| • Model: RS-PT120-P | • Read Range (Fixed Reader): US: > 6.0 m; EU: > 4.0 m |
| • Dimension: 35 x 15 mm | • Read Range (Handheld Reader): US: > 3.0 m; EU: > 2.0 m |



For more details, please visit our website.

UHF LaundryTag *PCB Seal Serise*

These labels are UHF washing labels specifically designed for linen management, composed of a flexible antenna and woven fabric. It can withstand over 200 industrial washes and has advantages such as thin thickness, long reading distance, pressure resistance, and high-temperature durability. This washing label possesses a unique global identification code and is sewn or heat-pressed onto each piece of linen. Throughout the use and washing management of the linen, it allows for batch reading with an RFID reader, automatically recording the usage status and washing frequency of the linen. This label simplifies and makes the transfer of washing tasks transparent, significantly improving inventory efficiency.



- | | |
|-------------------------|--|
| • Model: RS-PT122 | • Read Range(Fixed Reader): > 12.0 m |
| • Dimension: 86 x 16 mm | • Read Range(Handheld Reader): > 8.5 m |



- | | |
|-------------------------|---|
| • Model: RS-PT123 | • Read Range(Fixed Reader): > US: > 12.5 m; EU: > 9.0 m |
| • Dimension: 58 x 15 mm | • Read Range(Handheld Reader): US: > 8.5 m; EU: > 6.0 m |



- | | |
|-------------------------|---|
| • Model: RS-PT125 | • Read Range(Fixed Reader): US: > 6.5 m; EU: > 3.5 m |
| • Dimension: 35 x 15 mm | • Read Range(Handheld Reader): US: > 5.0 m; EU: > 2.5 m |



- | | |
|--------------------------|---|
| • Model: RS-PT128 | • Read Range (Fixed Reader): > 18.0 m |
| • Dimension: 70 x 15 mm | • Read Range(Handheld Reader): > 12.0 m |
| • Chip Type: FM13UF0051E | |



- | | |
|-------------------------------|--|
| • Model: RS-PT130 | • Read Range(Fixed Reader): > 14.5 m |
| • Dimension: 50 x 12 mm | • Read Range(Handheld Reader): > 7.0 m |
| • Chip Type: Impinj Monza 730 | |



- | | |
|--------------------------------------|---|
| • Model: RS-PT08 | • Chip Type: NXP Ucode 9 |
| • Dimension: Φ 18mm, c/J22mm, Φ 25mm | • Read Range: 1.5m(Φ18), 2.7m(Φ18), 5.5m(Φ25) |



For more details, please visit our website.

Industraial PCB On-metal UHF RFID Tag

These tags are based on FR-4 materials with IP68 rated. It has super reliability and durability, high temperature resistant, suitable for different harshenvironments. It could be installed via screw, rivet, adhesive, etc and it is compitable with the protocol IS018000-6C (EPC C1G2) with unique global ID, suitable differet assets trackingand managment .



Product	Model	Dimensions	Chip Type	Read Range (2W ERP) (902-928MHz)	Read Range(2W ERP) (865-868MHz)
	RS-PT04	36x13x3mm	NXP Ucode 8	8.8m,on metal	7.8m,on metal
	RS-PT13	6x6x3mm	NXP Ucode 8	8.8m,on15x2cm metal 3.8m,on14x14cm metal	7.4m,on15x2cm metal 2.3m,on14x14cm metal
	RS-PT18	8x3x3mm	NXP Ucode 8	11m,on15x2cm metal 3.5m,on14x14cm metal	11m,on15x2cm metal 3.7m,on14x14cm metal
	RS-PT19	D=10x3mm	NXP Ucode 8	12m,on15x2cm metal 4.5m,on14x14cm metal	/
	RS-PT30	13x7x3mm	NXP Ucode 8	15m,on15x2cm metal 7.0m,on14x14cm metal	/
	RS-PT34	D=20x2mm	NXP Ucode 8	6.6m,on metal	6.5m,on metal
	RS-PT72	95x25x3mm	NXP Ucode 8	12.5m,on metal	12m,on metal
	RS-PT73	52x13x3mm	NXP Ucode 8	11.5m,on metal	10.5m,on metal
	RS-PT74	80x20x3mm	NXP Ucode 8	11.0m,on metal	9.0m,on metal
	RS-PT75	80x20x3mm	NXP Ucode 8	20.5m,on metal	/

Product	Model	Dimensions	Chip Type	Read Range(2W ERP) (902-928MHz)	Read Range(2W ERP) (865-868MHz)
	RS-PT76	30x5x2mm	NXP Ucode 8	17.5m,on 15x2cm metal 7.0m,on 14x14cm metal	15m,on 15x2cm metal 4.5m,on 14x14cm metal
	RS-PT77	D=5x3mm	NXP Ucode 8	6.2m,on 15x2cm metal 2.0m,on 14x14cm metal	4.6m,on 15x2cm metal 2.3m,on 14x14cm metal
	RS-PT78	D=16x2mm	NXP Ucode 8	14m,on15x2cm metal 5.8m,on14x14cm metal	13.5m,on15x2cm metal 5.0m,on14x14cm metal
	RS-PT79	25x10x3mm	NXP Ucode 8	15.5m,on15x2cm metal 8.0m,on14x14cm metal	16.5m,on15x2cm metal 8.5m,on14x14cm metal
	RS-PT80	40x10x3mm	NXP Ucode 8	9.0m,on metal	8.0m,on metal
	RS-PT81	15x4x2mm	NXP Ucode 8	13.5m,on15x2cm metal 5.5m,on14x14cm metal	/
	RS-PT82	56.5x5x1.3mm	NXP Ucode 9	/	3.5m,on metal
	RS-PT83	60x20x3mm	NXP Ucode 8	13m,on metal	11m,on metal
	RS-PT85	50x10x1mm	NXP Ucode 8	5.0m,on metal	/
	RS-PT85P			7.7m,on metal	6.4m,on metal
	RS-PT86	42x15x2mm	NXP Ucode 8	10.5m,on metal	/
	RS-PT86P			11m,on metal	9.0m,on metal
	RS-PT87	80 x 5 x 2 mm	NXP Ucode 8	11.5m, on metal	9.5m, on metal
	RS-PT139	38x10x3mm	NXP Ucode 8	19m,on15x2cm metal 11m,on14x14cm metal	17m,on15x2cm metal 9m,on14x14cm metal
	RS-PT140	45x8x3mm	NXP Ucode 8	9.0m, on metal	/
	RS-PT140P			11m,on metal	7.0m,on metal

For more details, please visit our website.

UHF High Protecting Tag

These high protecting tags are specially designed for metallic asset tracking under outdoor or extremely harsh environments. Attached on metal with long reading distance, mainly used for asset management heavy industry, metallic asset tracking, oil & gas & mining, automatic production line, warehouse shelf, container tracking etc.



- Model: RS-PT91
 - Weight:15.5g
- Chip Type: NXP Ucode 8/9/9xe
 - Material: Engineering Plastics
- Dimensions: 128x30x8.5mm
 - Read Range: 25m(US),30m(EU)



- Model: RS-PT92
 - Weight: 12g
- Chip Type: NXP Ucode 8/9/9xe
 - Material: Engineering Plastics
- Dimensions: 88x30x9mm
 - Read Range: 24m(US),21m(EU)



- Model: RS-PT72
 - Weight: 76.4g
- Chip Type: Alien Higgs
 - Material: Ceramic/Epoxy/Steel
- Dimensions: D=34x30mm,M10
 - Read Range: 1.8m(US)



- Model: RS-PT88
 - Weight: 50g
- Chip Type: Alien Higgs
 - Material: Ceramic/Epoxy/Steel
- Dimensions: 60x30x8mm
 - Read Range: 3.5m(US),4.5m(EU)



- Model: RS-PT89
 - Weight: 23.5g
- Chip Type: Alien Higgs
 - Material: Ceramic
- Dimensions: 47.87x35x7.8mm
 - Read Range: 12.5m(US),16m(EU)



- Model: RS-PT90
 - Weight: 20g
- Chip Type: Alien Higgs
 - Material: Engineering Plastics
- Dimensions: 47.87x35x7.8mm
 - Read Range: 9.5m(US),7m(EU)



For more details, please visit our website.

UHF RFID Inlay label series

The UHF RFID Inlay Label Series delivers durable, long-range data transmission for tracking and inventory management.

Impinj Monza 4 Series



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
M4D	32bits	128bits	96bits	48bits	32bits	32bits
M4E	128bits	496bits	96bits	48bits	32bits	32bits
M4QT	512bits	128bits	96bits	48bits	32bits	32bits
M4i	480bits	256bits	96bits	48bits	32bits	32bits

- Antenna Dimension: 93x19mm
 - Label Material: Coated Paper/PET/Fragile Paper
 - Application: Windshield/ Logistics/ Asset/ Pallet,etc
- Wet Inlay/White Wet Dimension: 96x22mm(customized)
 - Read Range(2W ERP): 13m



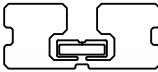
For more details, please visit our website.

NXP Ucode 8/9/9xe/9xm Series

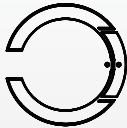


Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
Ucode 8	None	128bits	96bits	48bits	32bits	32bits
Ucode 9	None	96bits	96bits	48bits	32bits	None
Ucode 9xe	None	128bits	96bits	48bits	32bits	None
Ucode 9xm	User +EPC 880bits (customer configurable)		96bits	48bits	32bits	32bits

- Antenna Dimension: 72x30mm
 - Label Material: Coated Paper/PET/Fragile Paper
 - Application: Packing /Logistics/ Document / Asset,etc
- Wet Inlay/White Wet Dimension: 75x33mm (customized)
 - Read Range (2W ERP): 16m



- Antenna Dimension: D=27mm
 - Label Material: Coated Paper/PET/Fragile Paper
 - Application: Packing /Logistics/ Document / Asset,etc
- Wet Inlay/White Wet Dimension: D=30mm (customized)
 - Read Range (2W ERP): 6m



For more details, please visit our website.

Impinj Monza R6 Series



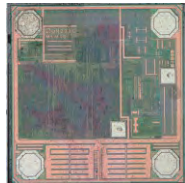
Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
MR6	None	96bits	96bits	48bits	None	None
MR6-P	32(64)bits	128(96)bits	96bits	48bits	32bits	32bits
MR6-A	None	96bits	96bits	48bits	32bits	32bits
MR6-B	None	96bits	96bits	48bits	32bits	32bits

- Antenna Dimension: 70x15mm
 - Label Material: Coated Paper/PET/Fragile Paper
 - Application: Apparel/ Logistics/ Document /Asset,etc
- Wet Inlay/White Wet Dimension: 73x20mm(customized)
 - Read Range(2W ERP): 12m



For more details, please visit our website.

Qstar-7X Series



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
71GB	128bits	496bits	96bits	48bits	32bits	32bits
73GB	512bits	128bits	96bits	48bits	32bits	32bits

- Antenna Dimension: 93x19mm
 - Label Material: Coated Paper/PET/Fragile Paper
- Read Range (2W ERP): 10m (US), 12m (EU)
 - Application: Packing /Logistics/ Asset, etc



For more details, please visit our website.

■ Impinj Monza 700 Series/800 Series



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
M730	None	128bits	96bits	48bits	32bits(share)	
M750	32bits	96bits	96bits	48bits	32bits(share)	
M780	128bits	496bits	96bits	48bits	32bits(share)	
M781	512bits	128bits	96bits	48bits	32bits(share)	
M830	None	128bits	96bits	48bits	32bits(share)	
M850	32bits	96bits	96bits	48bits	32bits(share)	

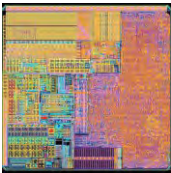
- Antenna Dimension: 72x30mm
- Label Material: Coated Paper/PET/Fragile Paper

- Read Range (2W ERP): 12m (US), 10m (EU)
- Application: Packing/ Logistics /Asset,etc



For more details, please visit our website.

■ Alien Higgs 10



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
H10	32bits	96bits	96bits	48bits	32bits	32bits

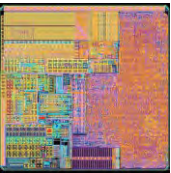
- Antenna Dimension: 70x14mm
- Label Material: Coated Paper/PET/Fragile Paper

- Read Range (2W ERP): 12.5m (US), 7m (EU)
- Application: Apparel/ Retail/ Asset, etc



For more details, please visit our website.

■ Alien Higgs Series



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
H3	512bits	96bits	96bits	64bits	32bits	32bits
H4	128bits	128bits	96bits	64bits	32bits	32bits
HEC	128bits	128bits	96bits	48bits	32bits	32bits
H9	128bits	96bits	96bits	48bits	32bits	32bits

- Antenna Dimension: 70x17mm
- Label Material: Coated Paper/PET/Fragile Paper

- Read Range (2W ERP): 12m (US),9m (EU)
- Application: Apparel/ Logistics/ Library/ Asset, etc.



For more details, please visit our website.

■ FM13UF011E Series



Model	User Memory	EPC Memory	TID Memory	Serialized TID	Kill Passwords	Access Passwords
011E	512-112bits	96-496bits	96bits	48bits	32bits	32bits
051E	128bits	128bits	96bits	48bits	32bits	32bits

- Antenna Dimension: 95x3mm
- Label Material: Coated Paper/PET/Fragile Paper

- Read Range (2W ERP): 16m (US), 6m (EU)
- Application: Library /Wine/ Asset, etc.



For more details, please visit our website.

2.45GHz Active RFID Products

RSTC RFID products series includes 2.45GHz Active readers, antennas and tags. The products can meet the requirements of high sensitivity, high accuracy, long distance and long-lasting in even the most demanding environment and applications.



2.45GHz Active RFID

Applications

Personnel Location

Supply Chain Management

Club And Students Management

Prison Management

Factory Asset Management

Medical Equipment Management

2.45GHz RFID Readers

RS-AR01

2.45 GHz series omni-directional active RFID readers have the characteristics of wide coverage, long reading distance, fast reading speed, high reading rate, high reliability, and strong expandability. The device has built-in reading distance adjustment control and RSSI tag signal intensity detection circuit.

The reading distance can be controlled by software within the range of 0-180 meters. The product is suitable for applications with obstruction and reading distance greater than 100 meters, such as open area access control, industrial signal identification, personnel positioning, attendance management, goods management and monitoring, manufacturing management, transportation management and other application systems.



Features

- Private Protocol
- Range Adjustable by Software
- Reading Radius 0-180m in Open Area
- Support RS-232, Ethernet Communication Ports
- Support GPIO
- C#/C++ API Supported

Application



Warehouse



Logistics



Supply chain management



IT Asset Inventory Management

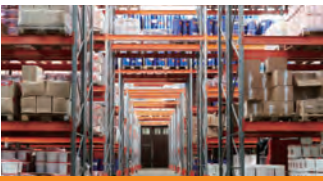


Industry 4.0 Smart Manufacturing



Employee, club and students management

Case Pictures



Warehouse Logistics Management



Personel Attendance Management



Manufacturing Management



Transportation Management

Specifications

Model No.	RS-AR01
Supporting Tag Protocol	Enterprise private protocol, can be customized development according to customer agreement
Supporting Tag Working Mode	Support active and passive active tags
Tag Reading Distance	0 ~ 180 meters (outdoor environment with line of sight, actual reading distance depends on antenna type, environment, tag type)
Number of Identification Tags	200 tags / second (Ethernet connection test)
Tag Anti-collision Handling	1000 tags

IP65 in waterproof casing



Fixed 2.45GHz Active Circle Outdoor RFID Reader

RS-AI01

RS-AI01 is an unique round-shaped RFID reader, offering reliable and efficient performance with its distinctive circular design. Perfect for a variety of applications, it ensures seamless interaction with RFID tags for enhanced long distance tracking and data management.



Functions

- Support RS-232,Wiegand 26/34, 10/100M Ethernet and customized interfaces
- Reading distance is adjustable by software
- Wireless module GPRS/GSM, WiFi (optional)
- Power supply (AC 100-240V; DC9V-18V) configurable by requirement
- Multi-group I/O ports, to control the functional mode of the reader/writer
- Command-trigger, set time-trigger and out-trigger suitable for customer's applications
- Multi-reader operating under intensive environment
- Waterproofing IP67, harsh environment

Specifications

Operating Frequency	2.4-2.48GHz
Output Power	-30dBm-0dBm (adjustable by software)
Sensitivity	-95dBm
Communication Interface	RS-232, 10/100M Ethernet
Optional Interfaces	RS-485, Wiegand 26/34
Wireless Expansion Module (Optional)	GPRS, 802.11 WIFI module
I/O Port (Optional)	2-channel relays output, 2- channel trigger input
Firmware Upgrade	Supported by serial port
Application Software Platform	Provide development kit of API (C++ and C#)
Reading Range	0-120m (depend on the tag power output)
Identification Speed	300pcs/s (tag ID)
Anti-confliction	Identifying 300pcs tag at the same time
Indicator	Buzzer, LED (Power, Reading, Data transmission)
Product Dimensions	Φ310mm×90mm (excluding stand);
Power Supply	AC180V~240V (optional DC 9-18V power module build-in)
IP Rating	IP67

2.45GHz Active Integrated Reader

RS-AI02

RS-AI02 has the features of high identification and reliability, strong expandability, etc. The read range is adjustable within 8~260 meters.



Functions

- ISM 2400-2480Mhz Working Frequency, Private Protocol
- Reading Radius 8-260m in Open Area, Range Adjustable by Software
- Build-in 15dBi Antenna, All in One RFID Reader
- Support RS-232, RJ45 Communication Ports
- Support GPIO
- Support C#/C++ API

Specifications

Operating Frequency	2.4-2.48GHz
Power Output	Max +15dBm,step -2dB, software adjustable
Receive Sensitivity	-95dBm
Antenna	Build-in 15dBi vertical polarized antenna
I/O Port (Optional)	2-channel relays, 2-channel tigger input
Firmware Upgrade	Supported by serial port
Application Software Platform	Provide development kit of API(C++/C#)
Communication Interface	RS-232, RJ45
IOptional interface	RS-485, Wiegand 26/34
Tag Protocol	Private protocol
Tag Reading Distance	8~260 meters (outdoor line of sight distance test, actual reading distance depends on antenna type, environment, tag type)
Number of Identification Tags	300 pcs/s (Ethernet connection test)
Anti-confliction	Identifying 300pcs tag at the same time
Product Dimension	320mm × 200mm × 105mm
Power Consumption	Standby 200mW; Working 400mW
Indicator	Buzzer
IP Rating	IP65

2.45GHz Active Tags

2.45 GHz series active RFID tag operates in 2.45GHz ISM frequency band, featured in 0~1500m long range distance reading, low battery consumption to assure long battery life, It is mainly used for hospital, club personal management, employee tracking in construction sites, asset and inventory tracking system, etc.

Features

- Exclusive low- power consumption
- Longer working time
- Permanent 4-byte basic ID
- Active or Passive operating model(read only)
- Up to 1500m reading distance
- Waterproof

Application


Warehouse


Logistics

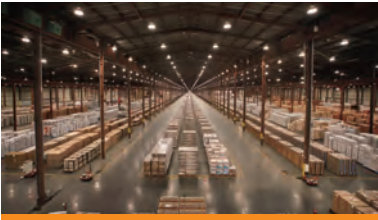

Supply Chain Management


IT Asset Inventory Management


Industry 4.0 Smart Manufacturing


Employee Club And Students Management

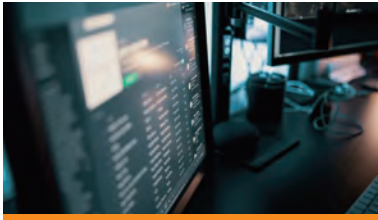
Case Pictures



Warehouse Logistics Management



Positioning Management



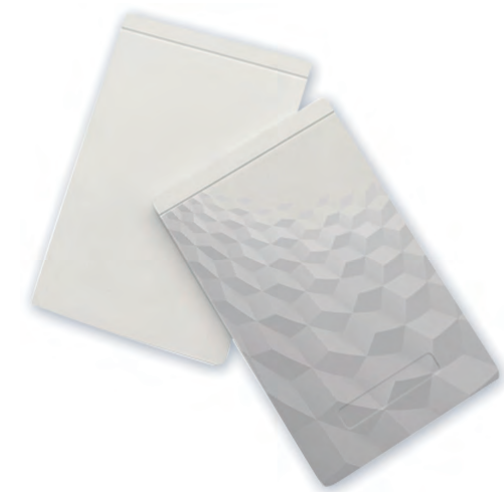
Monitoring Management

2.45GHz Active RFID Card

RS-AT02

Operates in 2.4GHz ISM frequency band featured in 80m long range distance reading low battery consumption to assure long battery life

- Read Range** • 0~150m (open area)
- Dimension** • 87 × 55 × 5.5mm
- IP Rating** • IP65



Rugged 2.45GHz Active RFID Card

RS-AT04

Operates in 2.4GHz ISM band, based on high IP67 rating water-proof design, it can be widely used for outdoor applications

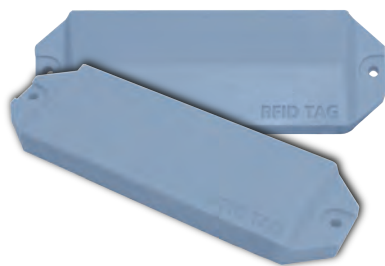
- Read Range** • 0~120m (open area)
- Dimension** • 90.5 × 57 × 5.5mm
- IP Rating** • IP67

2.45GHz Active RFID LED & Buzzer Tag

RS-AT05

It is with waterproof and battery changeable design and suitable for application occasions such as asset management, monitoring, locating etc.

- Read Range** • 0~80m (open area)
- Dimension** • 88 × 42 × 9mm
- IP Rating** • IP67



Ultra-long Range 2.45GHz Active RFID Tag

RS-AT07

This tag with waterproof and ultra long reading range design, the tag is suitable for application occasions such as asset management, monitoring, locating etc.

- Read Range** • 0~1500m (Test under open environment))
- Dimension** • 150 × 48 × 20mm
- IP Rating** • IP67

RS-AT10 Mini 2.45GHz Active RFID Tag (Coin/ Button Type)

RS-AT10

It operates in the 2.4GHz ISM band, it is small and round shape, which is suitable for asset management, personnel access monitoring and other integration.

- Read Range** • 0-60m (Test under open environment)
- Dimension** • Φ29.5mm × 9.5mm
- IP Rating** • IP50



2.45GHz RFID Active Temperature Sensor Tag

RS-AT11

It is an RFID active electronic tag operating in the 2.45GHz frequency band, with an external temperature sensor for more accurate measurement of object and environmental temperature and send the data in real time.

- Read Range** • 0~80m (Test under open environment)
- Dimension** • 150 × 48 × 20mm
- IP Rating** • IP65

RFID Applications

MTRCL Axle-box Temperature Monitoring System

Project Description

- Temperature monitoring for different types of trains on operating lines since 2013
- Over 30,000 RFID active tags
- Up to 100 active tags per train
- Environment with heavy machinery, metals, stone and concrete
- Sustainable in high speed, strong vibrations, strong electromagnetic interference, wide temperature and humidity range, high water and dust ingress
- Certificates: EN/IEC 50155, EN/IEC 50121, EN/IEC 61373, IP67, OFCA (HK)



On - site Deployment



MTRCL Depot Train Identification System

Project Description

- Identify the train location and consist at depots since 2024
- Over 1,800 RFID passive tags
- Environment with heavy machinery, metals, stone and concrete
- No missing tags and anti-misread the tags in other locations
- Certificates: EN/IEC 50121, EN/IEC 61373, IP67, OFCA (HK)

On - site Deployment



SANY Components and Spare Parts Logistics Project

Solution Design

Using RFID to standardize receiving/shipping and automate warehouse processes

Project Description

- Implementation Time: 2018
- Tag Quantity: 20,000 PCS

Project Outcome

- Inventory accuracy increased to over 99%
- 15% increase in warehouse efficiency
- Traceable employee performance and workload
- Reduced shipment errors and customer complaints



Midea Components and Spare Parts Logistics Project

Solution Design

Using 900MHz passive RFID technology, the system enables paperless operations in the existing warehouse. Products are automatically bound with relevant information upon production completion, followed by automated warehousing, automatic location identification, and automated outbound processing.

Project Description

- Implementation Time: 2019
- Tag Quantity: 2,000 PCS
- Improved warehouse efficiency and precision, reduced human error, seamless MES integration, labor cost reduction



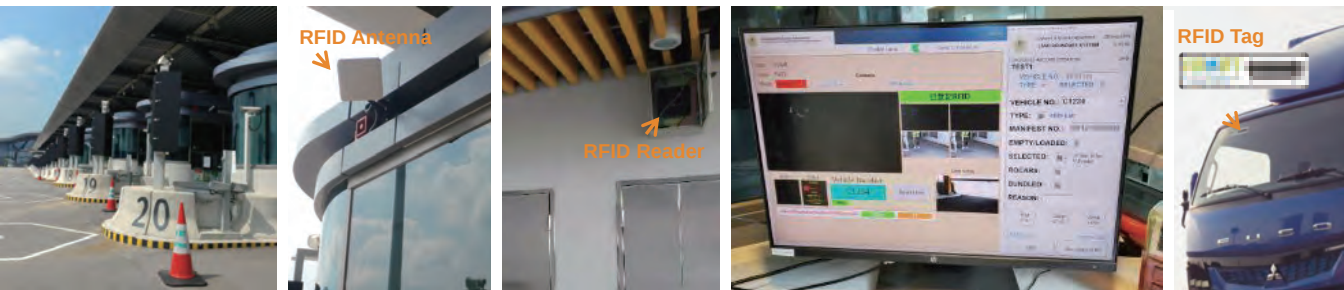
Hong Kong Port Smart Customs Clearance Project

Project Description

- Implementation Time: 2018
- Tag Quantity: 33,000 PCS
- Environment: Heavy-duty vehicle, glass shielding
- Long-range, high temperature, strong electromagnetic interference, waterproof



On - site Deployment



CNPC Personnel Safety Management System

Project Description

- Implementation Time: 2018
- Equipment Quantity: 10,500 SETS



On - site Deployment



Vietnam Seafood Processing Factory

Project Description

- Project Period: Since 2025
- Quantity: 500,000 PCS
- Withstand seawater, and metallic environment in the seafood factory
- Avoid missing tags and wrong reading tags

On - site Deployment



Spanish Food Factory Asset Management Project

Project Description

- Project Period: Since 2025
- Quantity: 10,000 PCS
- To withstand high temperature, humidity, and cleaning conditions in the food factory, high-protection RFID tags are used for stable asset identification and management.

On - site Deployment



CGN Tool Warehouse Management Project



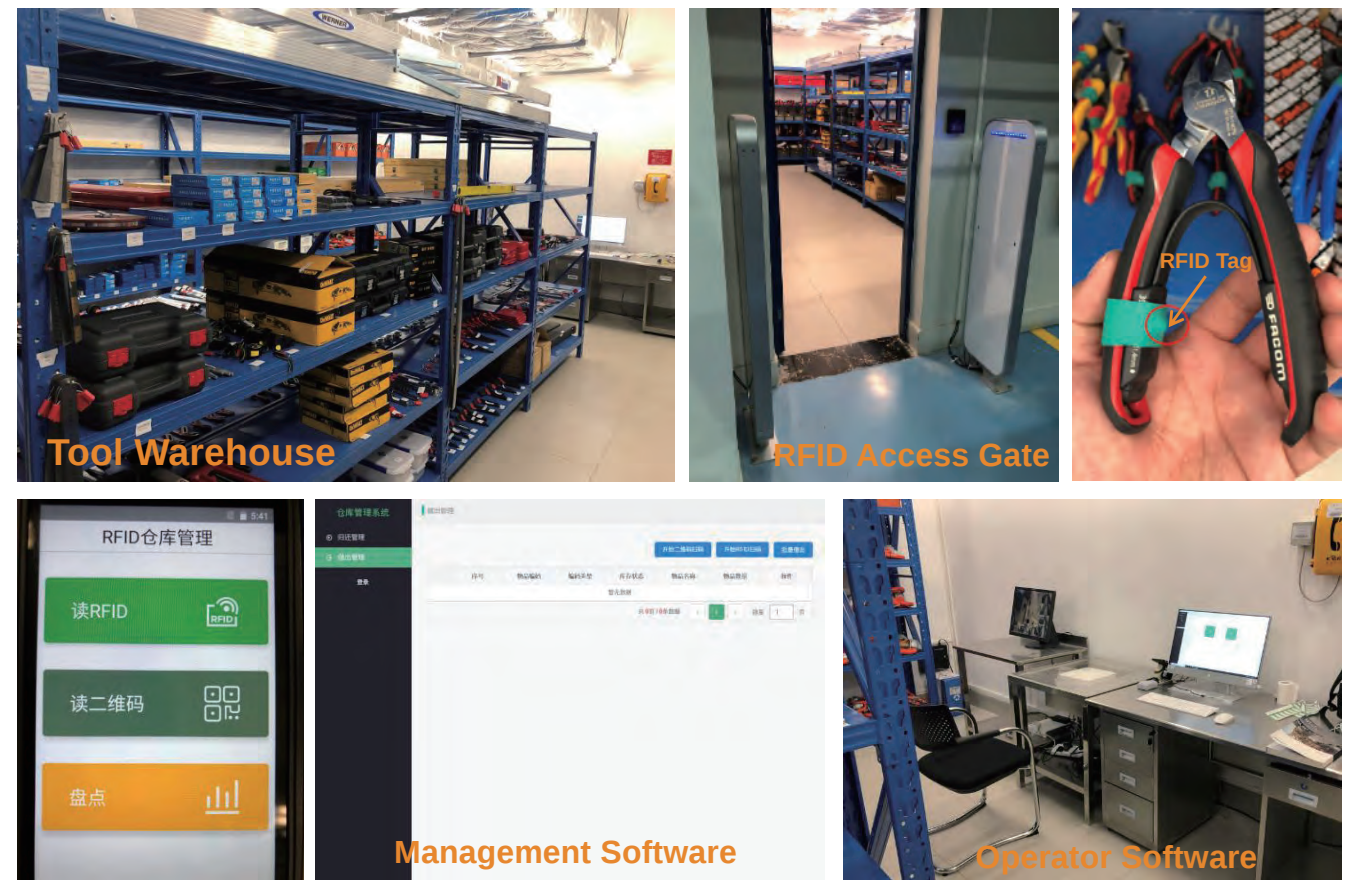
Project Description

- Implementation Time: 2021
- Tag Quantity: 10,000 PCS
- Key Issues Addressed: Complex tool borrowing process, lack of control over return status, loss of tools leading to safety risks with no accountability.

Project Outcome

After system implementation, tool borrowing became transparent, greatly reducing time costs and eliminating safety hazards. Backend data collection enables scientific analysis and report generation.

On - site Deployment



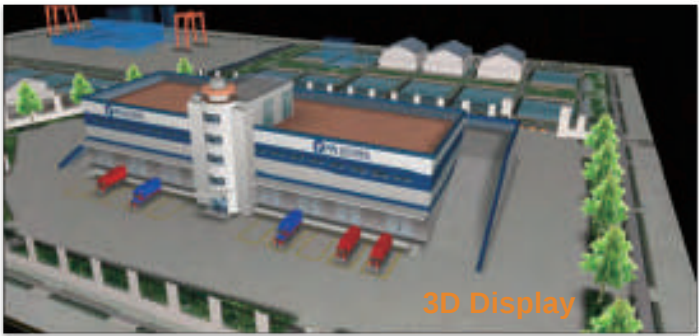
RFID Applications

Yantian Port smart Warehouse Project

Project Description

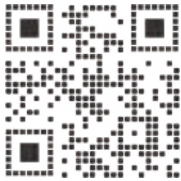
- Implementation Time: 2019 (Launched in two phases)
- Tag Quantity: 568,000 PCS
- Key Issues Addressed: Long vehicle unloading time, low intraoperational efficiency, inconsistency between WMS and actual data, lack of real-time management insight
- Systems Used: Vehicle appointment, berth management, zonepositioning, 3D visualization

On - site Deployment



Customization Services

We not only offer above regular products, but also provide personalized customization services, including product hardware, software and accessories etc. If you are interested, please feel free to contact us any time.



www.rstchk.com



WeChat



WhatsApp

Direct Contact :

**RuiSing Technology
Company (Hong Kong) Limited**

Tel/WhatsApp: +852-6876 5793

WeChat: +86-133 1695 0846

E-Mail: sales@rstc-hk.com

Office address: 11/F, Haribest industrial building, Nos 45-47 Au Pui Wan Street, Shatin, New Territories, Hong Kong

Factory address: Building 10, Hongyida (Yunchen) Technology Park, No. 138 Guanlan Avenue, Longhua District, Shenzhen, China

