



# UHF RFID Suitcase Production Management

## System Construct Presentation

# UHF RFID Features

- WENSHING Electronics Co., Ltd was established in 1987, our major business line ranges from computer, electronics to communications including the design, manufacturer, production and sales in this related fields. We provide fourth UHF RFID long range readers, including Industrial Reader, Handheld Reader, Out-door Reader and In-door Reader operate in 840~960MHz and complies with industry standard.
- Industrial Reader reading range able to reach 35 meters, 7 meters for Handheld Reader and 30 meters for Out-door and In-door Reader. Suitable in different passive tags and interfaces, complies with the industry standard.
- RFID readers can both write and read the tag, capable of handling above 200 tags, fast processing. Adapt to warehouse management requirement of supply chain. No need for extra human labor cost, it greatly improves tracking quantities and directions, step further for making the cost down and more efficient.
- Passive Tag features highly security, greater storage data capacity compared with traditional bar code and not easily been counterfeited. More than million times of re-write and read functions, it is able to withstand in harsh environment owing to a special-made material of TAG proofing longer product lifetime with additional features as non-directional limitation and cost-effective.

# System Introduction

WENSHING electronics applies the UHF RFID technology into “RFID Campus safety & access control system”, It provides comprehensive applications including procedure of material preparation, assembly, packing, QC, rapid inventorying check to all inventory work.

The management system is mainly apply to the equipment like UHF RFID Tag, industrial reader, handheld reader, mainframe integrate and digitized production management system.

RFID technology is with great advantage and development for supplier chain management, it achieves automatic sorting, avoid manual work and product line tracking.

Advantages:

<b>High Efficiency</b>	<b>Security &amp; stability</b>	<b>Pass &amp; Release</b>	<b>Information Sharing</b>	<b>Serial no. Analysis</b>
<b>Solve block</b>	<b>Cost Down</b>	<b>Enhance Management</b>	<b>Recycling</b>	<b>Environmental Protection</b>

# System Structure

## UHF RFID Handheld Reader

- Connect with Android smartphone in order to read and write the information on tag. Also rapid uploading or updating the information during the connection with the mainframe.

## Android Smart Phone

- Using smartphone to read the barcode on book and connect with UHF RFID handheld reader to write into the corresponding tag.

## UHF RFID Industrial Reader

- Connect with system mainframe, immediately monitoring books in/out and inventory.

## Main System

- Integrated books position management, inventory check management and check in/out management.

# UHF RFID Handheld Reader

- **WS-LOOKID Handheld Reader :**

Size : 135\*108mm (W\*D)

Frequency : 902~928MHz (Adjustable)

Sensitivity : -86dBm

RF Output power : 1W (30dBm)

Distance : 7m (MAX.)

Interface : Wi-Fi 、 Bluetooth (Serial Port Profile)

Memory : Micro SD 32G (MAX.)

Power supply : DC 5V 1A

Protocol : EPC Class 1 Gen 2 ISO18000-6C IS18000-6A/B

Wi-Fi : IEEE802.11b/g

Bluetooth : Bluetooth V2.1+EDR Class2

Wi-Fi : WEP64/WEP128/ TKIP/CCMP(AES) OPEN/WPA-PSK/WPA2-PSK

# UHF RFID Industrial Reader

- **WS-UHFRFIDANT4 Industrial Reader :**

Size : 160\*160\*55mm (W\*D\*H)

Frequency : 902~928MHz (Adjustable)

Sensitivity : -90dBm

RF Output power : 2W (33dBm)

Distance : 35m (MAX.)

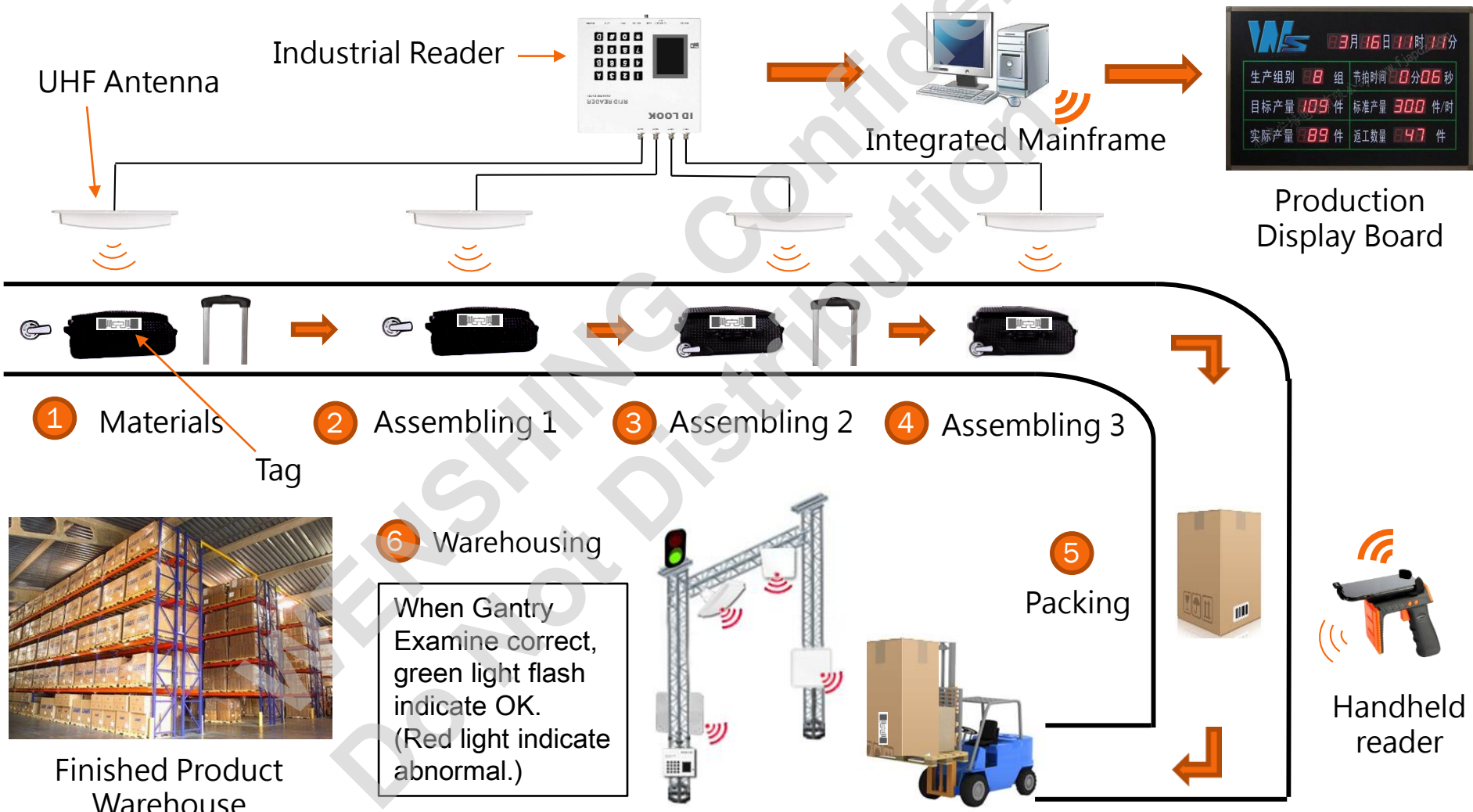
Interface : Weigan26/34 、 RS232 、 RS485 、 Wi-Fi 、 Ethernet

Power supply : DC 12V 1A

Protocol : EPC Class 1 Gen 2 ISO18000-6C IS18000-6A/B

Wi-Fi : IEEE802.11b/g standard

# System Procedure



# Synchronize Information

The handheld reader collocates with Android smart phone to read Tag information and record carton's information, click [submit], it will synchronize data to the [mainframe] via Wi-Fi or Bluetooth.



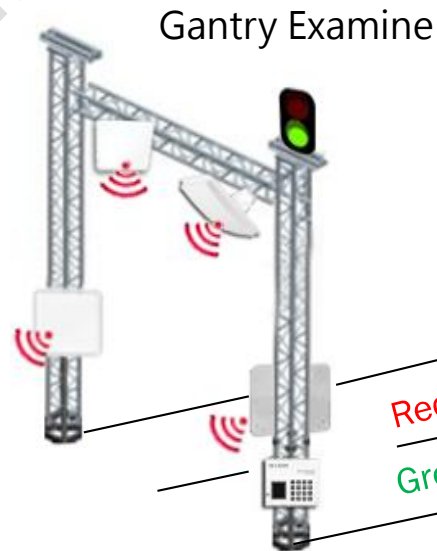


# Stock Out Management

Before the forklift receives shipping command to pick up goods to the designated location, it will reconfirm the accuracy, then deliver goods to the shipping port, meanwhile the Industrial Reader on the Gantry Examine will read the Tag information to verify and release shipments.

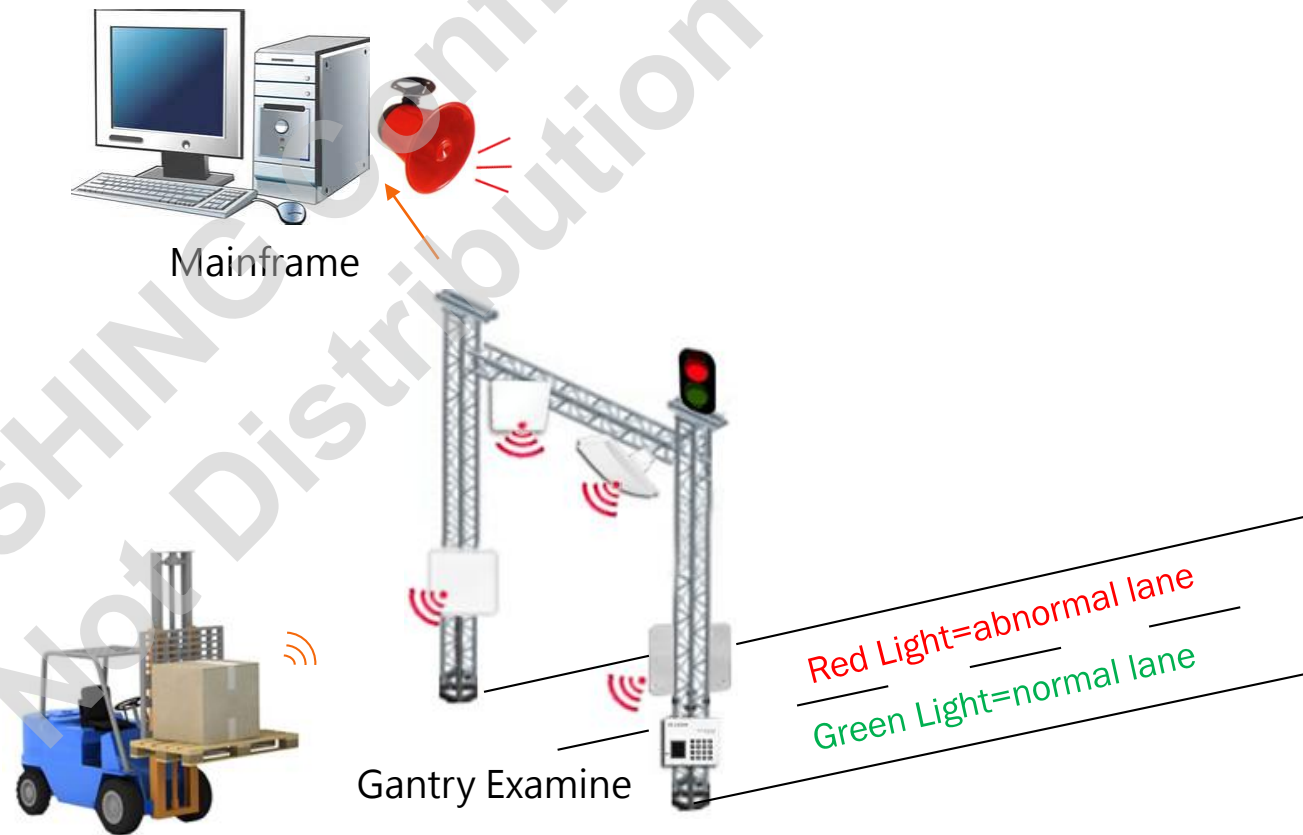


Mainframe

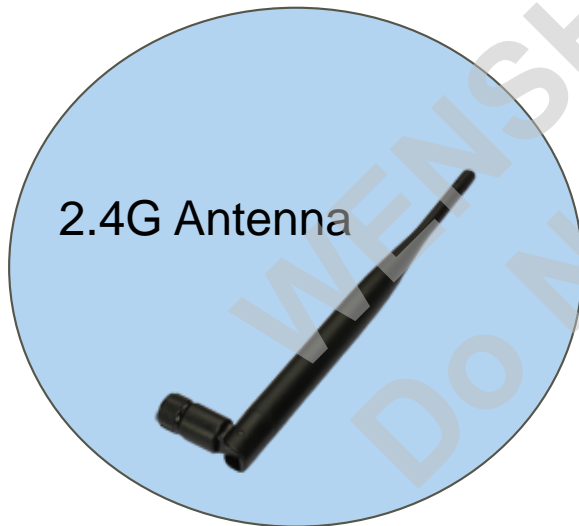
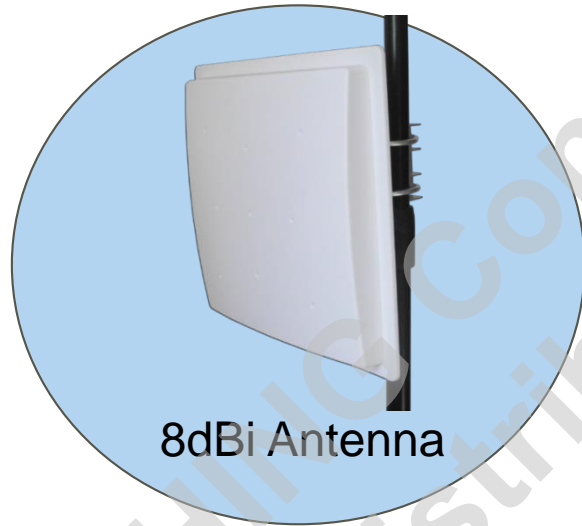


# Unusual Management

When the goods misplaced, the mainframe will reveal abnormal information with alarm, and the red light on, indicate the driver to the abnormal lane to reconfirm the goods information.



# Accessory



# Directional Antenna 8dBi

Technical Specifications	
Frequency (MHz)	902~928
Bandwidth (MHz)	26
Voltage Standing Wave Ratio (VSWR)	$\leq 1.25$
Antenna Gain (dBi)	8
Antenna Length (mm)	225*225*30
Polarization	Circularly polarized
Maximum Power (W)	100
Input Impedance ( $\Omega$ )	50
Horizontal Lobe width ( $^{\circ}$ )	60
Vertical Lobe width ( $^{\circ}$ )	60
Front to Back ratio (dB)	25
Half-Power Angle E-Plane	68
Half-Power Angle H-Plane	68
Connector	SMA
Antenna Cover Material	ABS

# Directional Antenna 9dBi

Technical Specifications	
Frequency (MHz)	902~928
Bandwidth (MHz)	26
Voltage Standing Wave Ratio (VSWR)	≤1.25
Antenna Gain (dBi)	9
Antenna Length (mm)	280*280*40
Polarization	Circularly polarized
Maximum Power (W)	100
Impedance ( $\Omega$ )	50
Vertical Lobe width ( $^{\circ}$ )	60
Horizontal Lobe width ( $^{\circ}$ )	60
Front to Back ratio (dB)	20
Connector	SMA
Antenna Cover Material	ABS

# Directional Antenna 12dBi

Technical Specifications	
Frequency (MHz)	925
Bandwidth (MHz)	26
Voltage Standing Wave Ratio (VSWR)	$\leq 1.25$
Antenna Gain (dBi)	12
Antenna Length (mm)	445*445*40
Polarization	Circularly polarized
Maximum Power (W)	100
Impedance ( $\Omega$ )	50
Horizontal Lobe width (°)	40
Vertical Lobe width (°)	38
Front to Back ratio (dB)	25
Half-Power Angle E-Plane	38
Half-Power Angle H-Plane	40
Connector	SMA
Antenna Cover Material	ABS

**Thank for your attention and your faithful support !**

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