UHF RFID Bottled Drinking Water Logistic 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 Bottled Drinking Water Logistic Management, it provide comprehensive applications including stock in and out, inventory, tracking. The management system is mainly applied to the UHF RFID Tag label, Industrial Reader, System Mainframe and digitized warehouse management software systems.

RFID technology has great advantages and development in the supply chain management, it achieve automatic sorting operation, prevent artificial operations and cargo tracking.

System Structure

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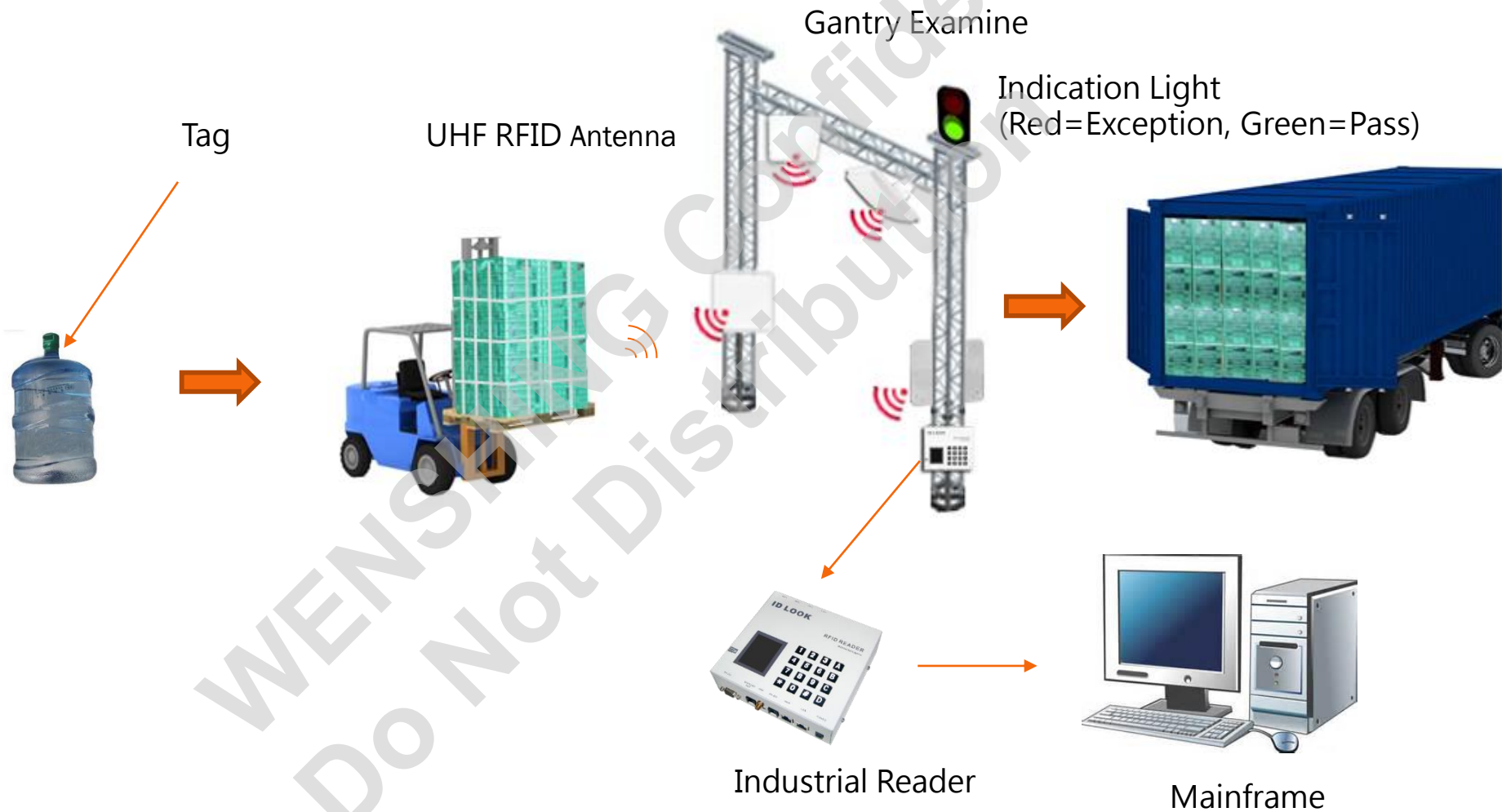
  Interface：Weigan26/34、RS232、RS485、Wi-Fi、Ethernet

  Power supply：DC 12V 1A

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

  Wi-Fi：IEEE802.11b/g standard

System Procedure

Gantry Examine

Indication Light
(Red=Exception, Green=Pass)

Tag

UHF RFID Antenna

Industrial Reader

Mainframe

Bottle drinking water labeling tag to identified each category.
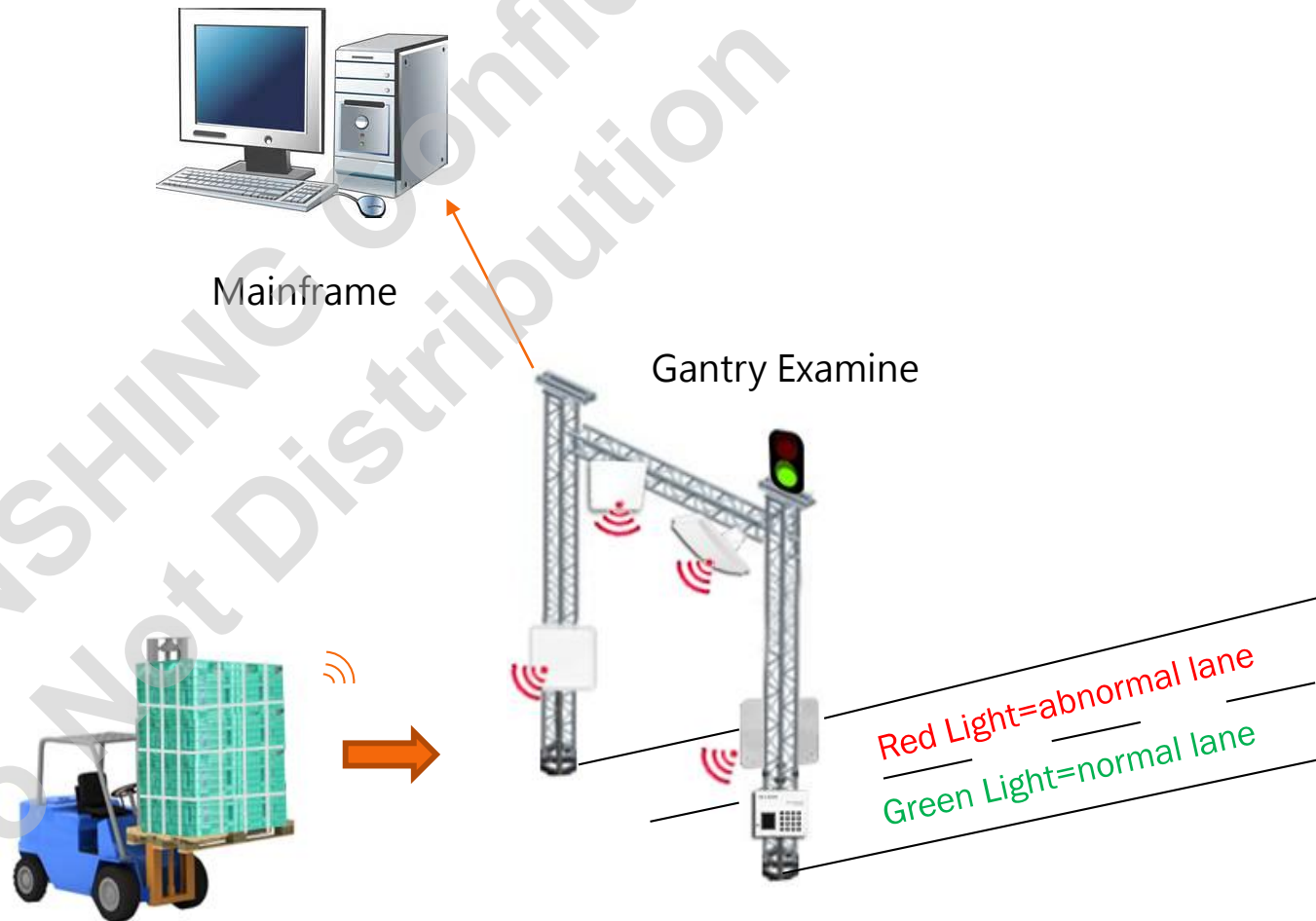

Tag

Bottle drinking water labeling tag.

UHF RFID Bottle Drinking Water 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 of bottle drinking water to verify and release shipments.

Mainframe

Gantry Examine

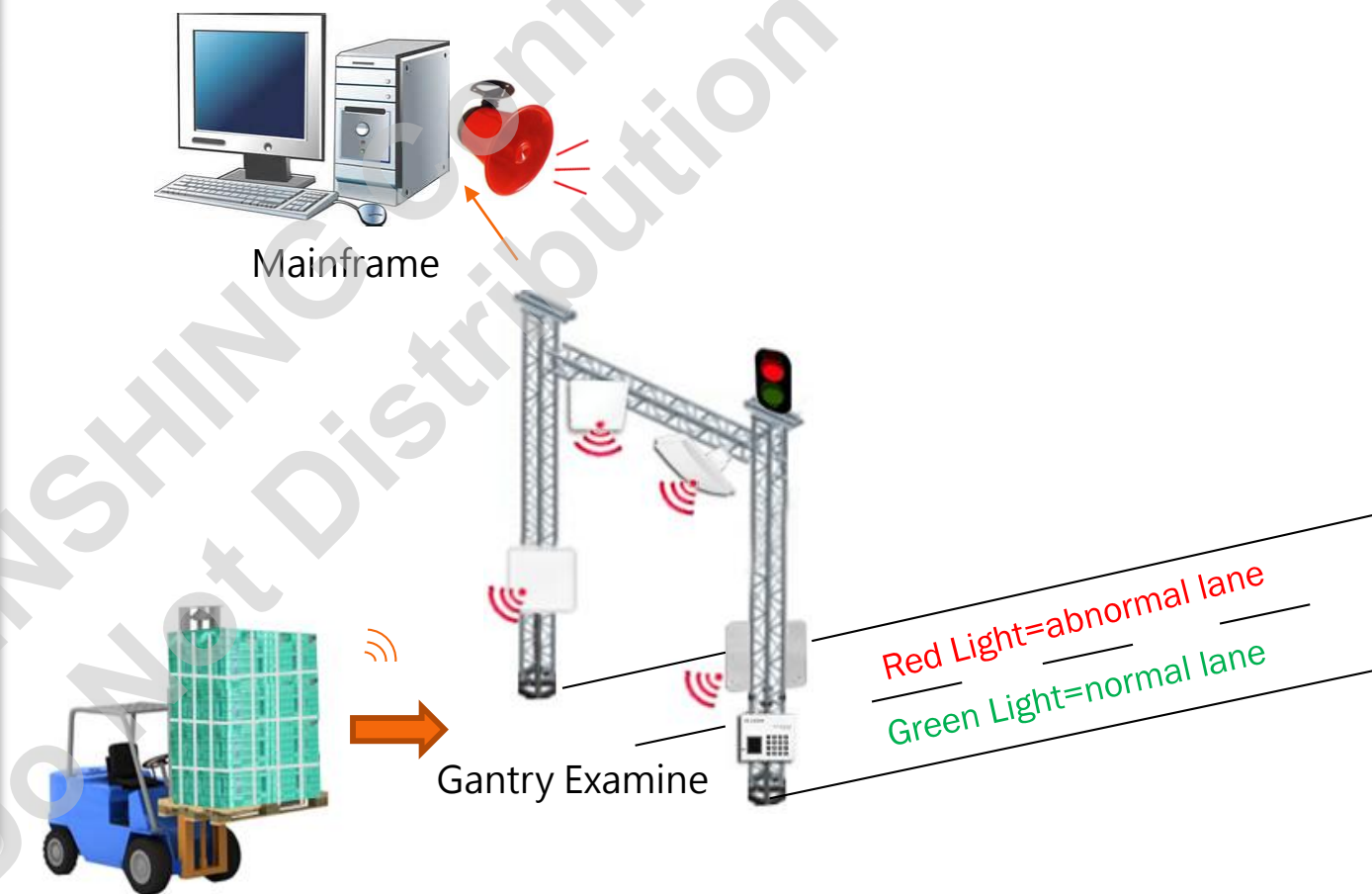Red Light=abnormal lane

Green Light=normal lane

UHF RFID Bottle Drinking Water Stock In Management

When goods pass through the Gantry Examine and into the warehouse, bottle information will be written to the Industrial Reader, then the mainframe of warehouse and network system will command the cargo system to the corresponding allocation.
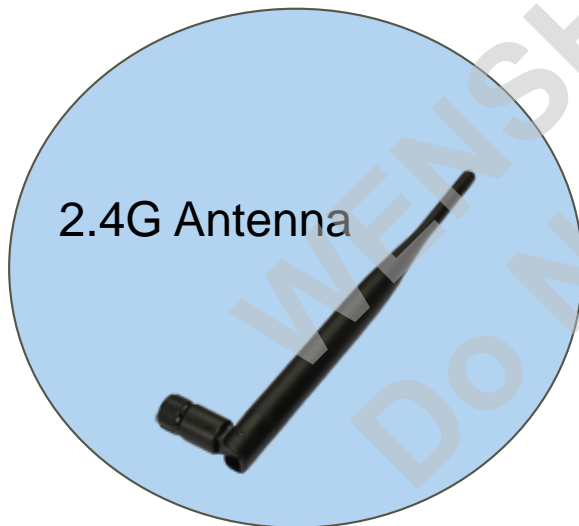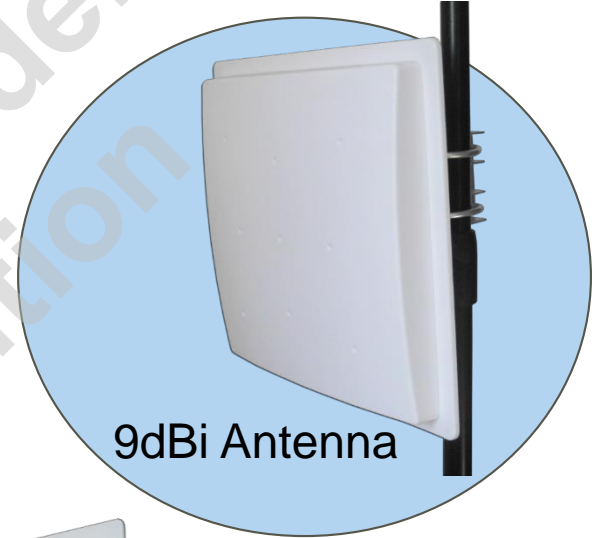
Mainframe
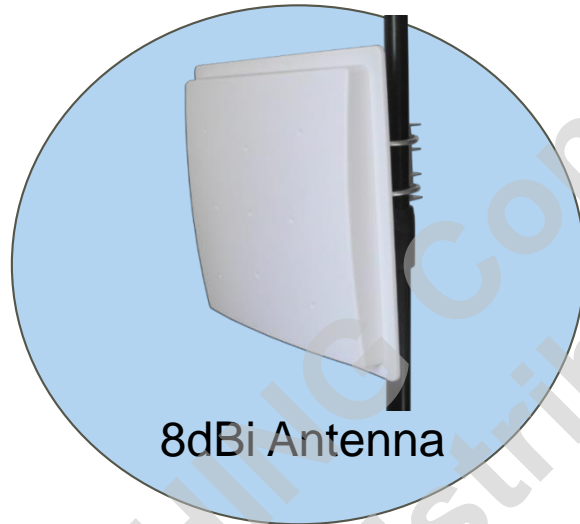
Gantry Examine

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UHF RFID Bottle Drinking Water Unusual Management

When there is mistake of bottle batch or quantity, 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.

Mainframe

Gantry Examine

Red Light=abnormal lane

Green Light=normal lane

Accessory

8dBi Antenna

9dBi Antenna

2.4G Antenna

12dBi Antenna

Directional Antenna 8dBi

Technical Specifications	
Frequency (MHz)	902~928
Bandwidth (MHz)	26
Voltage Standing Wave Ratio (VSWR)	≤1.25
Antenna Gain (dBi)	8
Antenna Length (mm)	225*225*30
Polarization	Circularly polarized
Maximum Power (W)	100
Input Impedance (Ω)	50
Horizontal Lobe width (°)	60
Vertical Lobe width (°)	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 (Ω)	50
Vertical Lobe width (°)	60
Horizontal Lobe width (°)	60
Front to Back ratio（dB）	20
Connector	SMA
Antenna Cover Material	ABS

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Directional Antenna 12dBi

Technical Specifications	
Frequency (MHz)	925
Bandwidth (MHz)	26
Voltage Standing Wave Ratio (VSWR)	≤1.25
Antenna Gain (dBi)	12
Antenna Length (mm)	445*445*40
Polarization	Circularly polarized
Maximum Power (W)	100
Impedance (Ω)	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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