UHF LED Label
Edison Series

Shanghai ReadFind IoT Co., Ltd

1. UHF LED Label Profile

Some RFID applications require to find specific target from group items.

UHF LED label is ideal design for single item finding, also suitable to RFID printer's working.

With universal RFID device, reads & locates tag with specific TID, then remotely triggers LED on, realizes the fast query and locate the target item easily!

Assist to find item's location, greatly improve the searching efficiency and management level!

The perfect combination of UHF long-distance reading & LED lighting eliminates industrial pain points and makes RFID application more valuable!

Innovative Tech
Unique Design
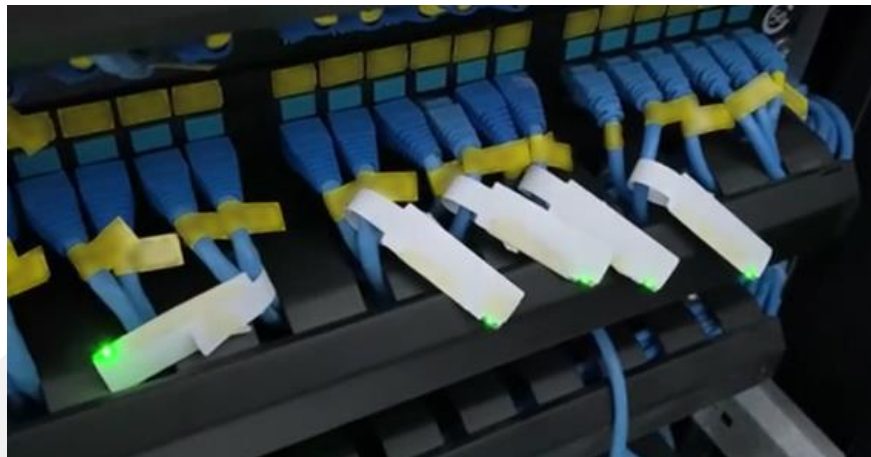
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2. UHF LED Label Application

Archives

Cables

Items

Jewelry

Assets

Garments

Packages

Document

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3. UHF LED Label Introduction

🔍 Feature

✓ Led light on the appointed label's TID from group items

✓ Outstanding performance: Bulk-reading, Quick Led On

✓ Universal Design: Capable to roll label converting

✓ Label Printable: Plain surface, support most RFID printers

✓ Customized inlay: Various sizes for tailor-made project

✓ Shipping form: Wet inlay, Label in roll

✓ Led lighting on distance: 3 meters *

✓ Label reading distance: Up to 8 meters *

*Remark: Read distance depends on Inlay design, Reader's power, performance and related application scenario.

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3. UHF LED Label Introduction

🔍 General Specification

- ✓ Inlay Structure: PET+ Aluminum Antenna +RFID Chip + LED

- ✓ Antenna Substrate: PET

- ✓ Antenna Tech: Aluminum Etching

- ✓ Inlay Dimension: 95x3mm or customizable

- ✓ Antenna Pattern Design: Customizable

- ✓ LED Position On Inlay: Customizable

- ✓ RFID, LED Working Mode: Passive (Battery free)

- ✓ LED: Green, Blue, Red

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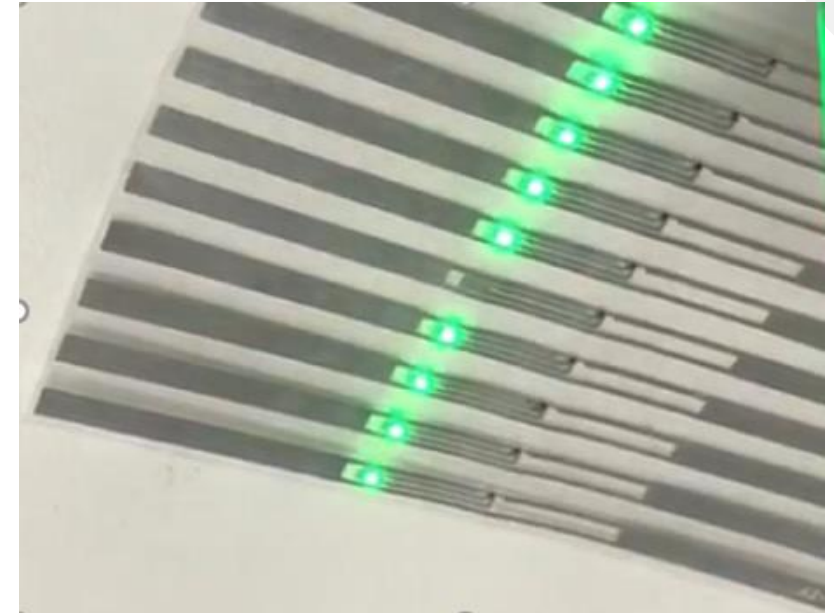
3. UHF LED Label Introduction

🔍 RFID Chip

- RF Protocol: ISO18000-6C EPC C1G2 (V1.2.0)
- Working Frequency: 840-960 MHz
- Memory Size: 2048 bits
  EPC:160 bits, User: 1312 bits, TID: 96 bits,
  Access and Kill Passwords 32 bits each
- Min. Read Sensitivity: -22.5 dBm
- Min. Write Sensitivity: -16 dBm
- Work Temperature: -40 to +85°C
- Storage Temperature: -40 to+125°C
- ESD (HBM): 3500 V

- Efficient Multi-labels anti-collision algorithm
- Ultra-low power reading and data writing
- Ultra-long Read/Write Working distance
- Low power super permanent memory
- Data duration over 10 years
- Tamper-proof and physically unerasable
- Memory: One Time Program. Data irreversible
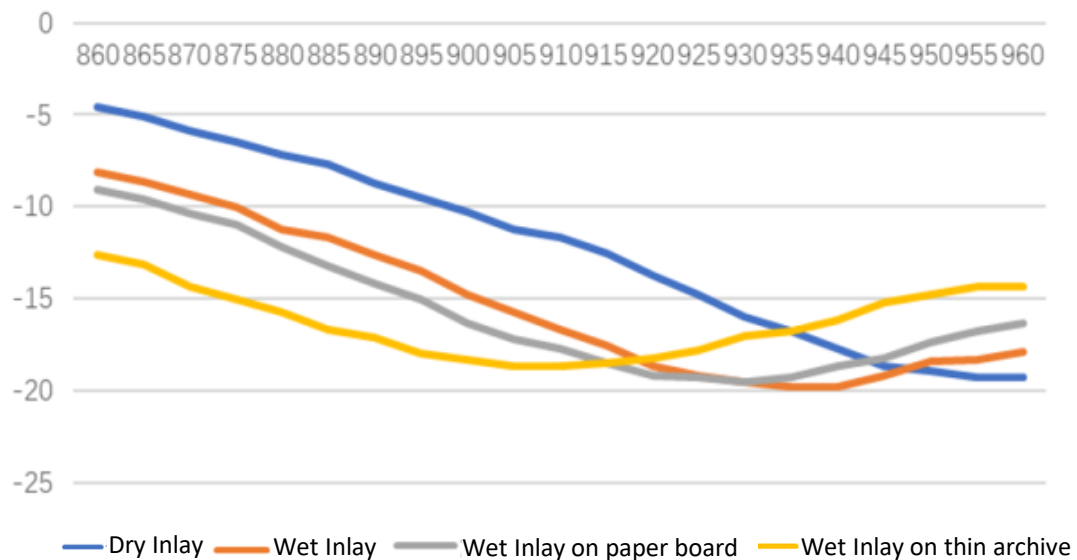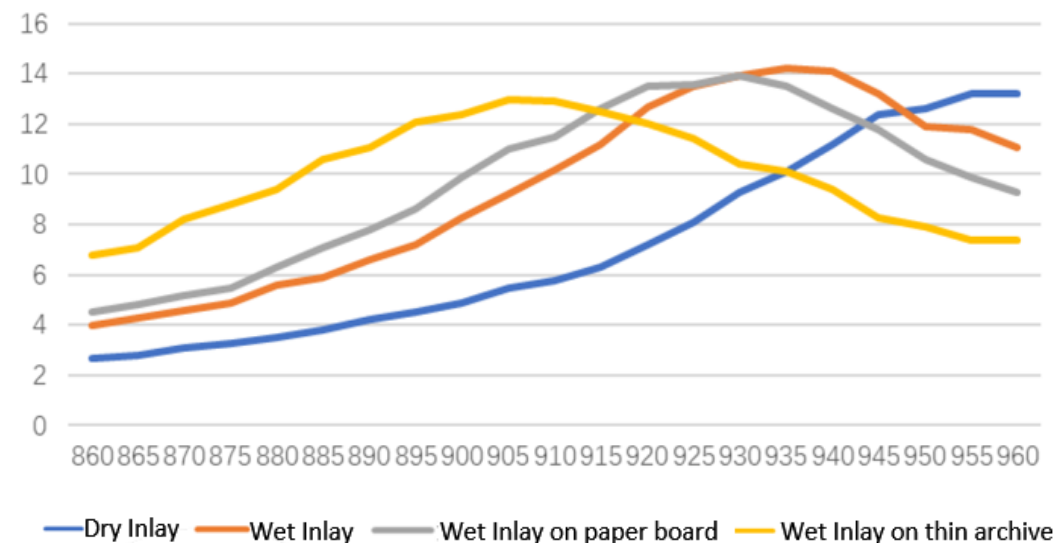- High reliability and high security
- LED Drive: Supported

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Performance and Test

Sensitivity

Reading Distance

Inlay Model: RF-9503XBLGA   Antenna Size: 95mm x 3mm

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3. UHF LED Label Introduction

Variety of antenna design
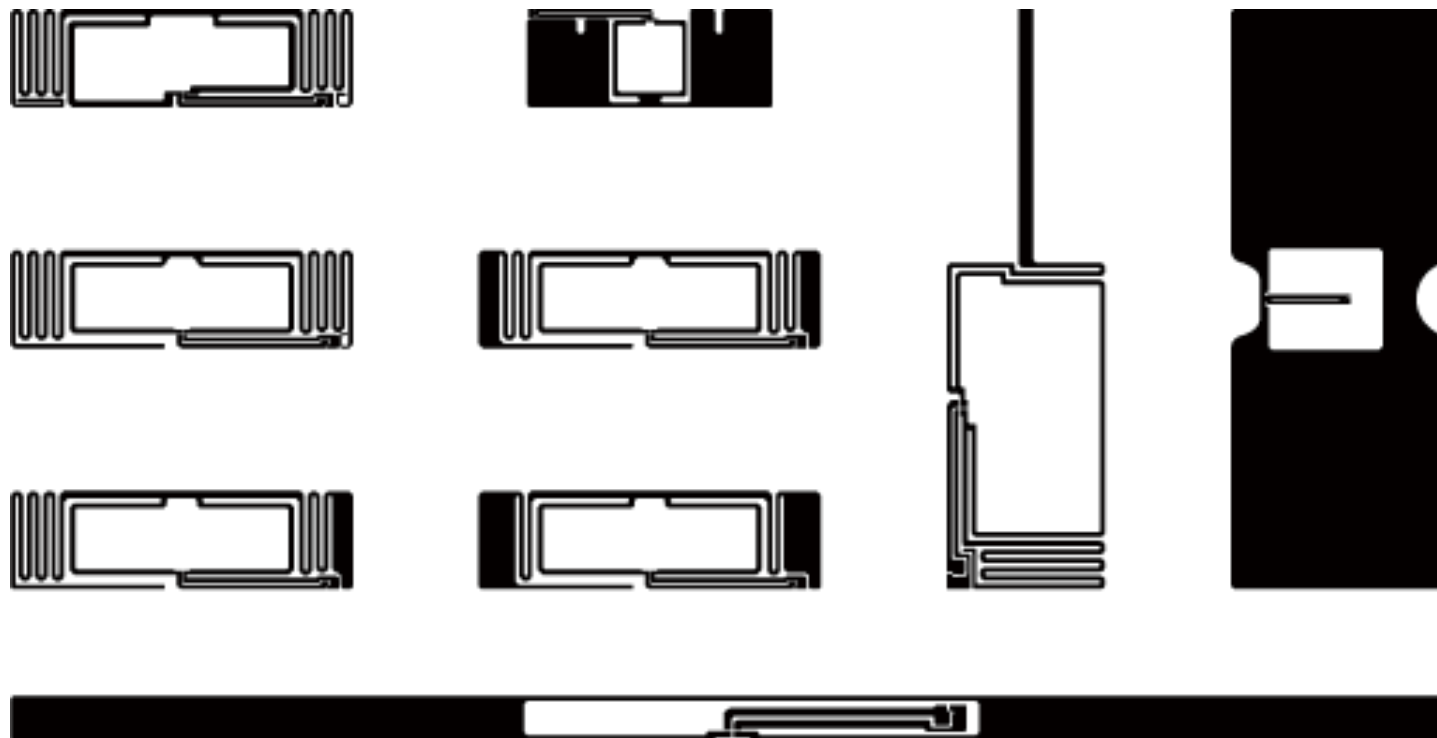
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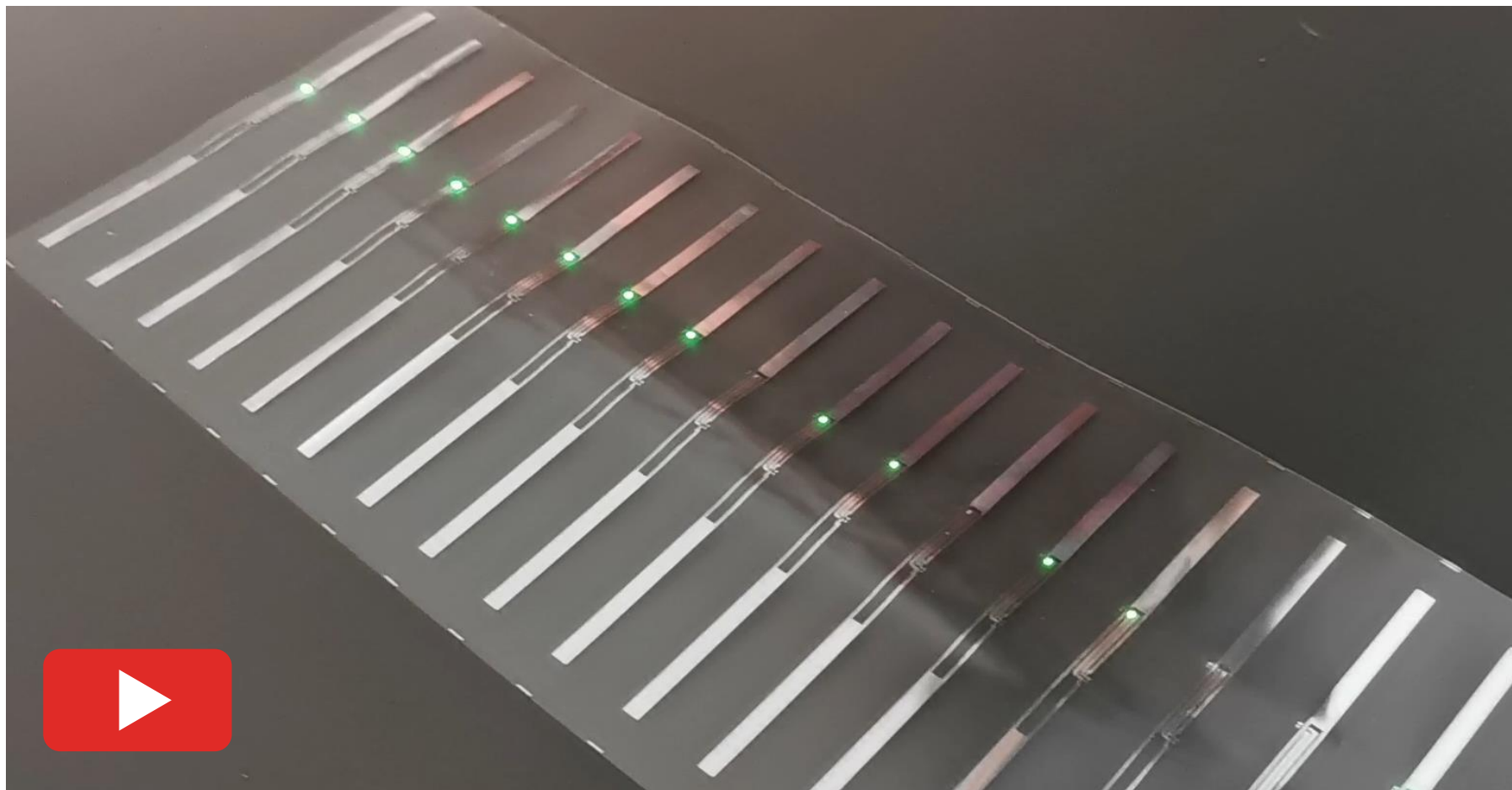
Remarks: Test with 2W handheld device and maximum lighting distance is 3 meters.
Inlay Model RF-9503XBLGA

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5. Trigger LED Lighting on Assistance

If you have handheld Reading Device/Reader

Will provide instruction how to send command from Reader to RFID label to trigger LED On.

Use the standard read command to read address 4 in the RFU zone, length 1, to trigger the

voltage output of the LED Pad, output voltage range 0.8V-2.2V.

If you need handheld Reading Device or readers, glad to provide detailed info to assist
your project moves quickly!
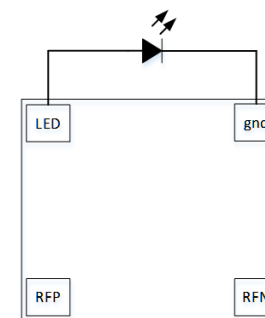
LED function connection method

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About RealSmart Technologies

Founded in 2005, headquarters in Shanghai, rooted in the smart card and RFID industry.

Focus on various RFID products research and development, manufacturing management and service.

Output excellent RFID products and solutions to customers over 60 countries.

Product and Service

✓ Industrial grade Super-mini UHF Tags

✓ Industrial grade On-metal UHF Tags

✓ RFID antenna, Inlay and label's design, manufacture and customization

✓ HF/NFC, UHF Inlay, Label and Smart Card Manufacture and service

✓ RFID Testing Tools' Promotion, Consultant and Training service

✓ Promote RFID new technology, product, solution and application landing

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