MINGQ
- TECHNOLOGY -

RFID IN LIVESTOCK COUNTING & WEIGHING

MAKING AGRICULTURE MANAGEMENT EASIER

CHALLENGES

WHAT LIVESTOCKING MANAGERS ARE SUFFERING

LEARN MORE

INTERFERENCE IN HIGH-DENSITY ENVIRONMENTS

TRADITIONAL RFID SYSTEMS FACE DIFFICULTIES IN CROWDED AND FAST-PACED SETTINGS, LEADING TO MISREADS OR MISSED TAGS.

CYBERSECURITY

RFID TAGS ARE APPROXIMATELY $2 MORE EXPENSIVE THAN PIN TAGS, RAISING CONCERNS ABOUT THE FINANCIAL BURDEN ON FARMERS.PREVIOUS HIGH COSTS AND INSTALLATION DIFFICULTIES OF UHF SYSTEMS DETERRED MANY LIVESTOCK COMPANIES FROM ADOPTING THIS TECHNOLOGY.

LABOR-INTENSIVE PRACTICES

TRADITIONAL FARMING METHODS ARE OFTEN MANUAL AND TEDIOUS, REQUIRING SIGNIFICANT LABOR.

EQUIPMENT DOWNTIME

FARMERS TYPICALLY ONLY ADDRESS EQUIPMENT ISSUES AFTER BREAKDOWNS OCCUR, LEADING TO PRODUCTIVITY LOSSES.

RESOURCE MANAGEMENT

INEFFICIENT USE OF WATER AND OTHER RESOURCES CAN LEAD TO WASTE AND INCREASED OPERATIONAL COSTS.

TRACEABILITY ISSUES

TRACKING THOUSANDS OF ANIMALS INDIVIDUALLY HAS BEEN A SIGNIFICANT CHALLENGE FOR FARMS, EVEN WITH SUBSTANTIAL WORKFORCE SUPPORT.

COST CONCERNS

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EFFECTIVENESS REVIEW

31%

MARKET IMPACT

U.S. PORK PRODUCTS ARE EXPORTED, MAKING IT CRITICAL FOR THE INDUSTRY TO ADOPT COMPETITIVE MEASURES LIKE RFID.

99.7%

ACCURACY

$15M+

FEDERAL BUDGET

A HUGE FEDERAL BUDGET AGREEMENT ALLOCATES FOR INFRASTRUCTURE TO SUPPORT ELECTRONIC TRAKCING, EMPHASIZING THE IMPORTANCE OF RFID IN DISEASE TRACEABILITY.

01

Get In Touch

Enhancing Efficiency in Livestock Counting with RFID-Enabled Specialized Labels

Learn More

Specialized Livestock Labels D35a

Streamlining Livestock Counting with RFID-Enabled Specialized Labels for Improved Efficiency.

02

Get In Touch

Optimizing Information Entry at Livestock Slaughtering Stations with Input Devices

Learn More

UHF RFID Reader
GRH-I90

RFID Rugged Tags
PD4318M3

At livestock slaughtering station, the RFID device can be used to get information for the waiting circle.

Improved Efficiency

RFID eliminates manual data entry, reducing labor costs and processing time.

03

Get In Touch

Streamlining Quarantine Inspection Information Entry with RFID Technology

Learn More

Long Identification Range RFID Antenna AB10010

Dual-Channel (UHF) RFID Reader RFly-F210

At the synchronous quarantine station, the input device can be used to enter quarantine inspection information.

Enhanced Traceability

Facilitating precise tracking of livestock from farm to market, RFID ensures transparency in the supply chain and enables quick animal identification for effective recalls and regulatory compliance.

04

Get In Touch

Improving Livestock Counting and Tracking with RFID Readers Applications

Learn More

RFLY-I170

Integrated RFID Reader Writer RFly-I165

Cost-Effective

Reducing manual data entry and errors, RFID systems lower operational costs in livestock management while providing long-term savings through increased accuracy and minimized losses.

05

Streamlining Real-Time Information Entry at Livestock Weighing Stations with RFID Devices

Learn More

Get In Touch

Integrated RFID Reader Writer RFly-I165

At the livestock weighing station, the input device can be used to enter sales information for outgoing products.

Real-Time Monitoring

Delivering real-time data on livestock health, location, and status to enable timely interventions and optimize management practices.

The Main Benefits of RFID Application In Livestock Management

01

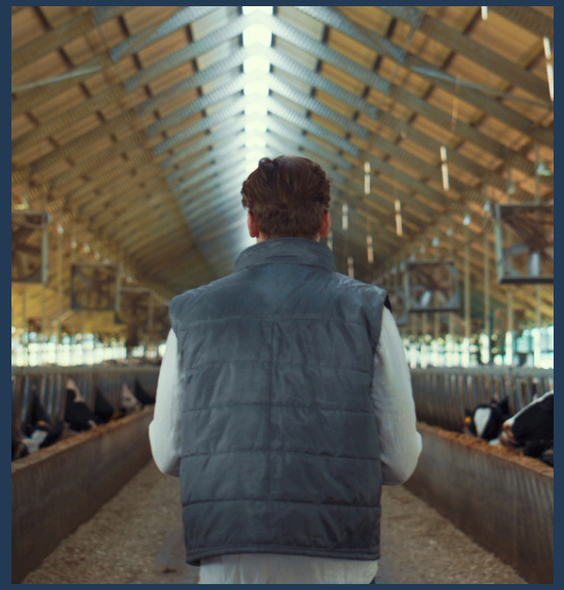
Enhanced Traceability

Enables precise tracking of livestock from farm to market, ensuring complete transparency throughout the supply chain. This allows for quick identification of animals, facilitating effective recalls and compliance with regulatory standards.

02

Cost - Effective

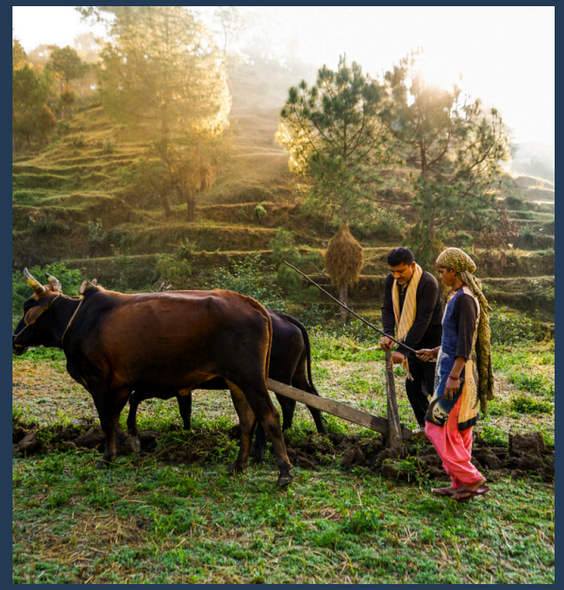
By reducing manual data entry and errors, RFID systems lower operational costs associated with livestock management. The long-term investment in RFID technology yields savings through increased accuracy and reduced losses.



03

Real-Time Monitoring

Providing real-time data on livestock health, location, and status, allowing for timely interventions and decision-making. This capability enhances animal welfare and optimizes management practices.



04

Improved Efficiency

Automating the tracking and management processes with RFID accelerates workflows, reducing time spent on manual tasks. This leads to higher productivity, enabling farmers to focus on strategic activities rather than administrative burdens.

Preparation & Setup 01

Site Assessment

- **RFID Tag Selection:** Choose appropriate tags based on the animal type (e.g., ear tags for cattle, neck collars for sheep). Ensure tags are durable and weather-resistant.

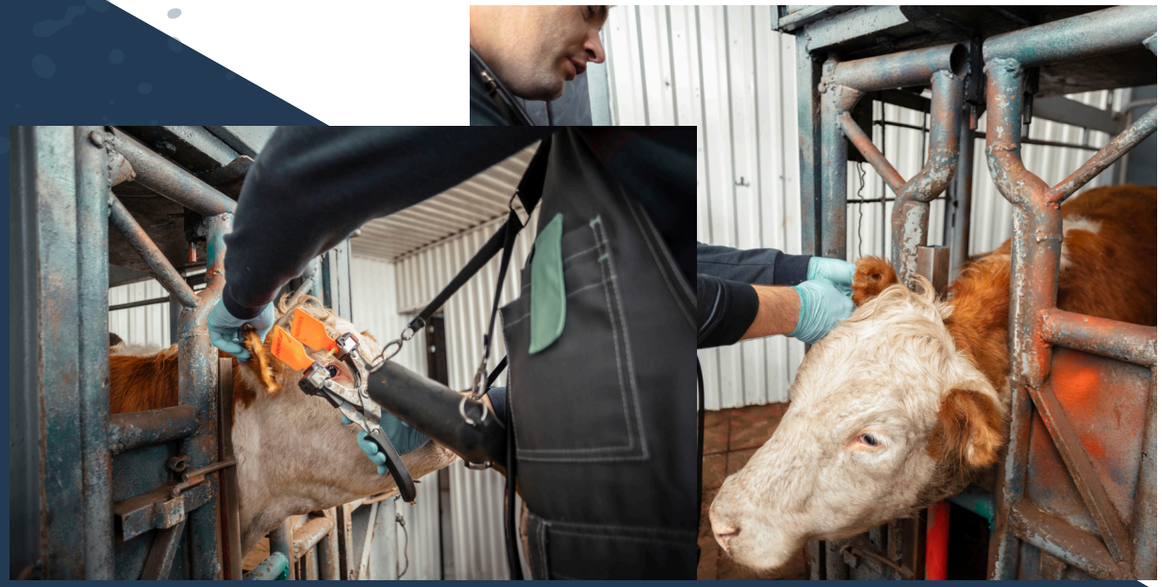
- **Tagging Procedure:** Securely attach RFID tags to each animal in a consistent manner, typically on the ear or neck, ensuring they are easily accessible for scanning.

Site Assessment

- Conduct a thorough analysis of the livestock facility to determine optimal locations for RFID devices.
- Consider high-traffic areas such as entry/exit points and weighing stations.

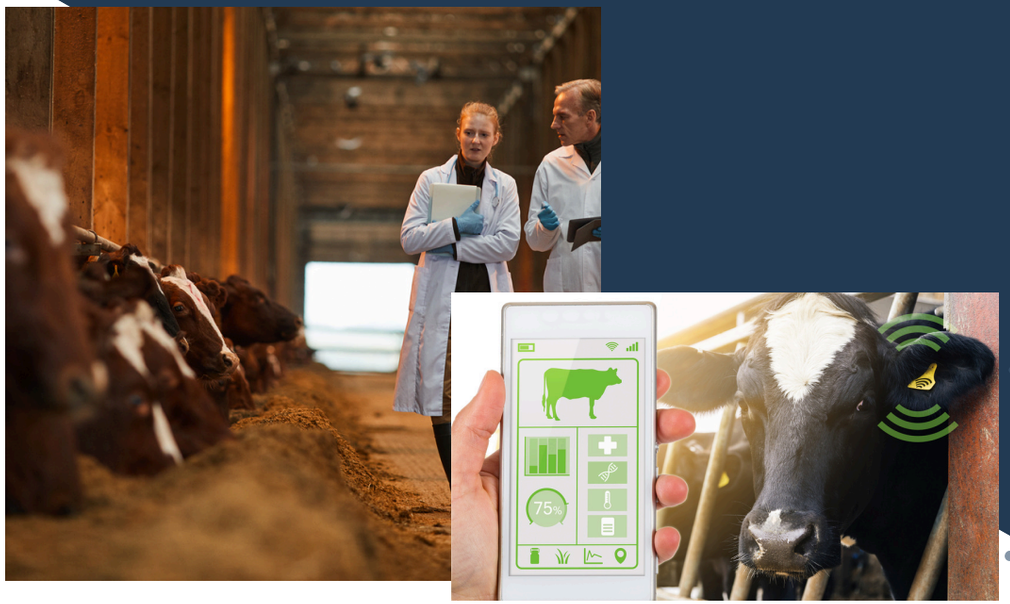
Readers Installation

- **Entry/Exit Gates:** Position readers at all entry and exit points to capture animal movements efficiently.
- **Weighing Stations:** Place readers above or around the weighing platform to ensure accurate tag reads as animals are weighed.



02 Tagging Animals

Data Entry 03



System Configuration

- Set up the RFID management software to accept initial animal data. This should include the RFID ID, breed, age, health records, and other relevant information.

Input Process:

- Enter the initial data into the system manually or via batch upload to streamline the process.

- **Handheld Reader Deployment**
- Equip farm personnel with handheld RFID readers. Ensure they are familiar with operating procedures.

Scanning Protocol:

- As animals pass through the designated gates, scan each RFID tag. The system should automatically log each read, updating the total count in real-time.

04 Counting Livestock

Weighing Process 05

Integration with Weighing Scales

- Connect the RFID system to electronic weighing scales. Ensure the scales can communicate with the RFID software for data synchronization.

Weighing Procedure

- As each animal is weighed, the RFID reader captures the tag ID simultaneously. The system associates the weight data with the corresponding animal ID automatically.

Central Database Upload:

- Ensure that all collected data (animal counts and weights) are uploaded to a central database.

Data Integrity Checks:

- Implement periodic checks to verify data accuracy and integrity within the database.

06 Data Synchronization

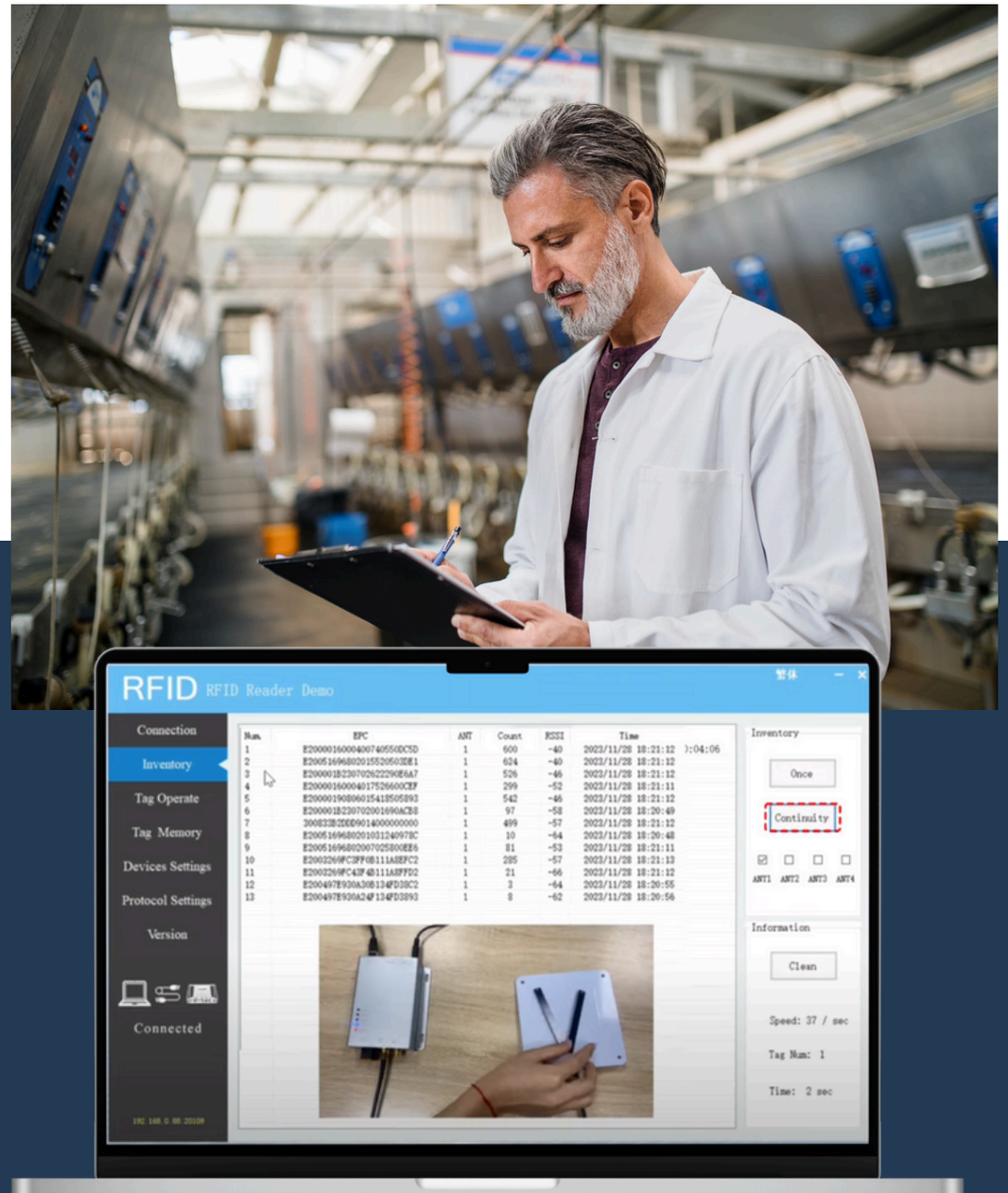
07 Monitoring and Reporting

Dashboard Utilization:

- **Use the RFID management software's dashboard to monitor real-time data on livestock counts and weights.**

Report Generation:

Set up automated reports for management to analyze trends in animal growth, health, and inventory status.



Ongoing Maintenance

Regular Inspections:

- **Conduct routine inspections of RFID tags and readers to ensure they are functioning correctly. Replace any damaged tags promptly.**

System Updates:

- **Keep the RFID software updated to incorporate the latest features and security protocols.**

READERS

MingQ Product Solution Guide

UHF RFID Reader GRH-I90

Industrial Grade Handheld UHF RFID Reader GRU-HC520
Suitable for Logistics

- High-Frequency Operation: Complies with ISO15693.
- Recognition Distance: 0 to 15 cm, ideal for assembly line applications.
- Excellent electrostatic and surge protection.
- Multiple Communication Interfaces: Supports TCP/IP, RS232, RS485
- Diverse Protocol Support: Compatible with Modbus RTU, Modbus TCP, and proprietary protocols.
- Varied Operating Modes: Supports both active and passive reading.

INDUSTRY MARKET

UHF Mobile Readers

UHF RFID Reader GRU-HC520

Industrial Grade Handheld UHF RFID Reader GRU-HC520
Suitable for Logistics

- Most Powerful Application Performance
- Fast Wireless Connectivity
- High protection
- Powerful Capture Functions
- Superior UHF RFID Reading Capability
- Highly Customizable

INDUSTRY MARKET

UHF RFID Reader RFly-I165

IP67-protected Integrated RFID Reader Writer RFly-I165
for Supply Chain

- Excellent reading sensitivity, up to -88dBm
- Long reading distance: with maximum tag read range of 12m
- Excellent anti-collision algorithm, tag read rate is up to 400pcs/s
- With network port, RS232, GPIO and other communication peripheral interface
- High power output, up to 33dBm
- Waterproof and dustproof design, up to IP67 grade

INDUSTRY MARKET

RFID Tags PD4318M4

- **Equipped with super high gain circular polarization antenna**
- **Equipped with Ethernet, RS232 (customizable), RS485 (customizable), Wiegand (optional), and others customization.**
- **High Tag Inventory Speed**
- **Superior Reading Sensitivity**

INDUSTRY MARKET

RFID Tags PD6020H9

- **Equipped with super high gain circular polarization antenna**
- **Equipped with Ethernet, RS232 (customizable), RS485 (customizable), Wiegand (optional), and others customization.**
- **High Tag Inventory Speed**
- **Superior Reading Sensitivity**

INDUSTRY MARKET

Specialized Livestock Tags

Narrow RFID Portals Series TD-P20040-SS for Single Tag Entry and Exit Identification Scenario

- **Durable Material: Made from weather-resistant and tear-proof materials for longevity in outdoor environments.**
- **RFID Integration: Supports RFID technology for enhanced traceability and tracking.**
- **Easy Application: Simple adhesive backing for quick and secure attachment to livestock.**
- **High-Visibility Design: Bright colors and bold fonts for easy identification from a distance.**

INDUSTRY MARKET

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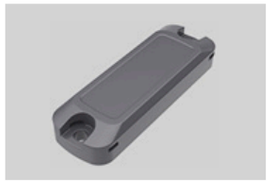
INDUSTRY MARKET

Search For More RFID Tags: www.mingq.com.hk


PD4318M4


PD6020H9


PD6320H9


PD8421H3

PD9025H9

KT5050QT


PD11027H3


KT8025H9


KT8654H9


KT8654QT

MingQ Product Solution Guide

RFID TAGS

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