



Application Booklet

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*For detailed product specifications and further inquires on the applications described in this booklet, please contact us through email.*

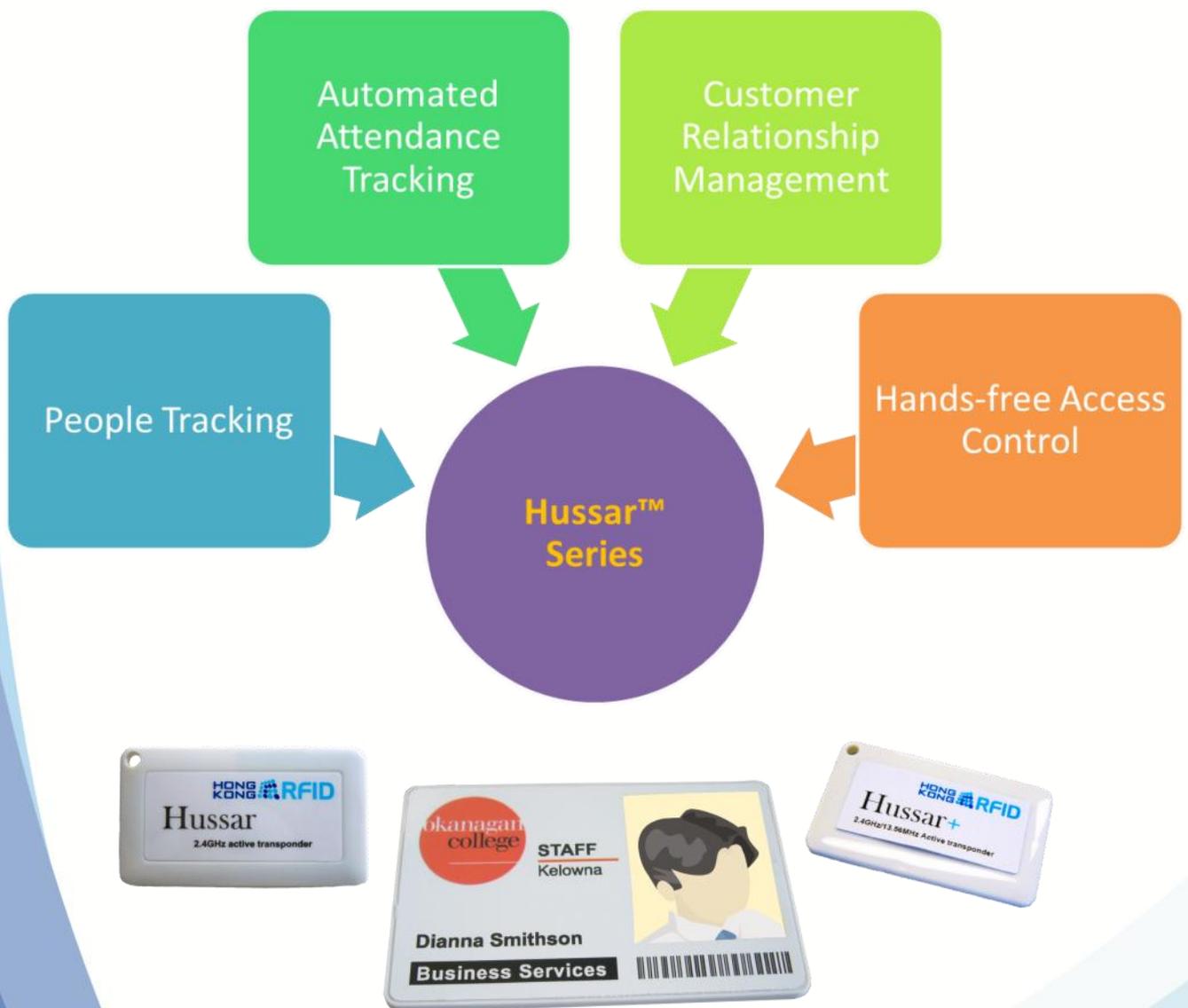
*Email: [sales@hk-rfid.com](mailto:sales@hk-rfid.com)*

*Product Catalogue: [www.active-rfid.net](http://www.active-rfid.net)*

## Hussar™ Series

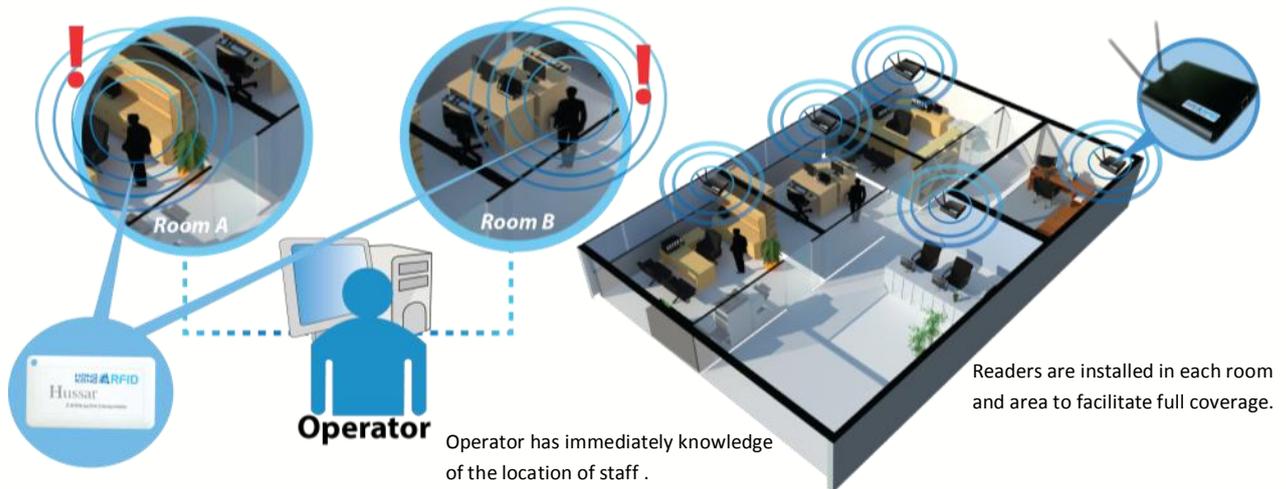
The Hussar™ Active RFID Tag family consists of a series of tags designed for flexible and convenient tagging of people in different applications. Not only small in size, the reading distance of Hussar™ Tags used with Empress 2.4GHz Active RFID Readers is reliable and ranges from 5m to 50m.

Hussar™ Series Tags are best applied on people because of their compact design for convenient carriage. The replaceable battery design together with low battery consumption of the tags are desirable for use in the long term with great flexibility.



## People Tracking

*Effective and automated people tracking is an essential yet complicated issue for all; no matter for patient care, staff management or secured access. With our Hussar™ Active RFID Tag series, you would be able to track people in a wide variety of situations for any specific purposes, while efficiency, accuracy and security in people management can be guaranteed.*



Operation Flow	Equipment needed
1. Active RFID tags are given to staff or attached on their belongings to be carried around at all times.	 Hussar™ Slim Tag P/N: HKRAT-NT02
2. When staff approaches different areas, the readers installed in that zone detects the tags and send the tag ID to the PC.	or  Hussar™ Slim Plus Tag P/N: HKRAT-NT02+
3. Operator can view location of staff on PC.	or  Hussar™ Card Plus Tag P/N: HKRAT-CT02+
4. Alarms will be triggered when staff entered dangerous zone or unauthorized areas.	 Empress™ Reader

## Benefits

1. Effective people management with real time location tracking in different zones.
2. Prevent unauthorized access to dangerous or highly-confidential areas.
3. Enhance efficiency and accuracy in attendance records.
4. Provide visibility of operation flow for monitoring purposes.

## Automated Attendance Taking

Attendance taking is a routine task for staff going to work or for students going to school. With our Hussar™ Active RFID Tag series, attendance taking is no longer a tedious or complicated procedure. The whole attendance taking and reporting procedure becomes easy and far more accurate by adopting active RFID system.



When the staff carrying the Hussar™ tag enters the entrance of the company, the tag ID is sent to the reader and his attendance record will be updated in the PC automatically.

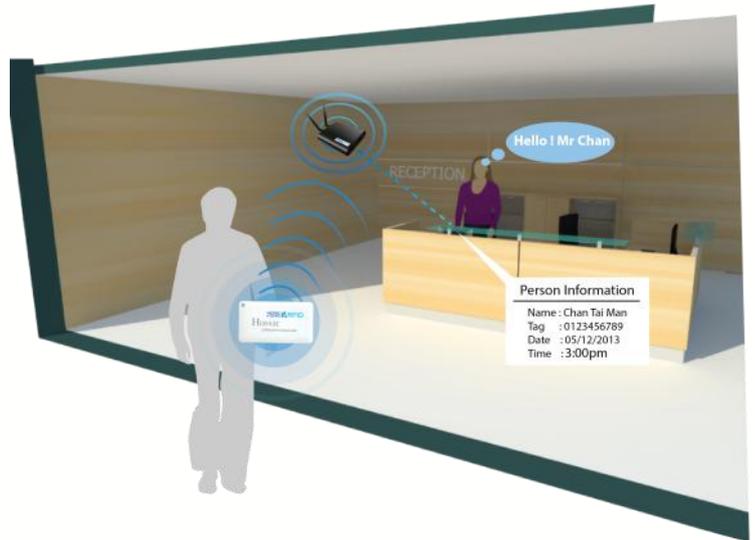
Operation Flow	Equipment needed
1. Active RFID tags are given to each person as staff/student cards. Their information is linked with the corresponding tag ID for easier retrieval when needed.	 Hussar™ Slim Tag P/N: HKRAT-NT02
2. Whenever a person carrying the tag pass through the entrance/exit, readers would detect the tag automatically and send the tag ID to the system instantly.	 or Hussar™ Slim Plus Tag P/N: HKRAT-NT02+
3. Entry or exit of a particular person is recorded and could be retrieved for various management and planning purposes.	 or Hussar™ Card Plus Tag P/N: HKRAT-CT02+
4. The tags send out RFID signals every second, so the readers detects and records on a real time basis.	 Empress™ Reader

## Benefits

1. Save manual cost and effort of manual attendance recording and other paperwork.
2. Enhance efficiency with multi-tag identification.
3. Generate detailed monthly report for better planning and monitoring.
4. Minimize attendance record errors and avoid unnecessary disputes.

## Customer Relationship Management

*Understanding your customers well has become an important business strategy today to help retain and attract customers. Through automatic storing and instant retrieval of customer information in the database, our active RFID tags provides the most effective and convenient tool to establish an extendable and sustainable CRM system.*



When the customer carrying the Hussar™ tag enters the shop, the tag ID will be sent to the reader and then information mapped with this tag ID is shown on the PC for the shop staff's reference.

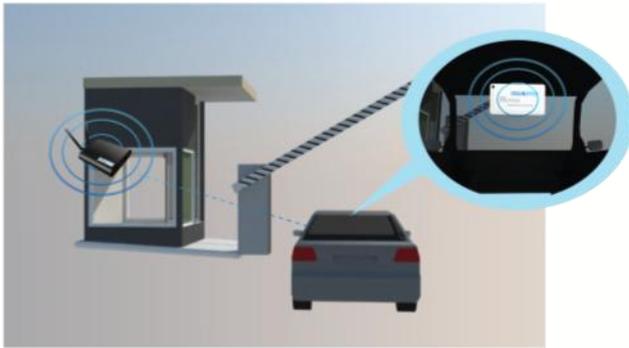
Operation Flow	Equipment needed
1. Each customer is given an active RFID tag which possesses a unique tag ID to help identify them.	 Hussar™ Slim Tag P/N: HKRAT-NT02
2. When a customer carrying the tag approaches the entrance, readers automatically detect the tag and send the tag ID to the reception's PC.	 Hussar™ Slim Plus Tag P/N: HKRAT-NT02+ or
3. Relevant customer profiles, purchase histories and other information of that tag ID are retrieved and displayed on the PC instantly.	 Hussar™ Card Plus Tag P/N: HKRAT-CT02+ or
4. Staff could provide personalized services according to the information displayed to better serve customers.	 Empress™ Reader

## Benefits

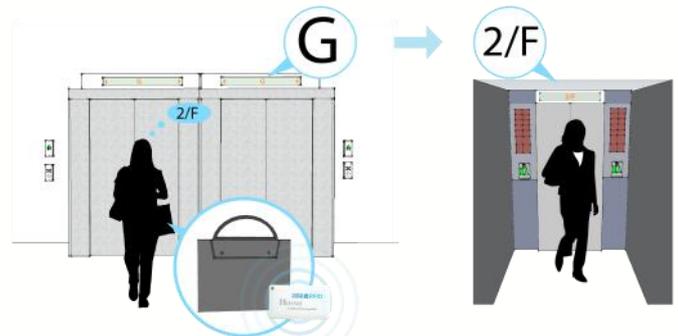
1. Better understanding of customer preferences and behavior.
2. Personalized services to enhance customer satisfaction and loyalty.
3. Data stored for analysis and reporting for customer service improvement and management.
4. References for future product development and service launch.

## Hands-free Access Control

*Access control is an essential part of a security system and premium living environment in residential and commercial areas. With our active RFID tags, access control becomes automatic and efficient, providing the most convenient and secured access control solution.*



Once the reader installed at the entrance detected the tag ID sent from the tag carried by the car driver, the gate would open for access or departure of the car.



When the reader installed at the lift lobby detects the tag ID sent from the tag carried by the residents or staff, the lift would be automatically directed to the floor mapped with the tag ID.

Operation Flow	Equipment needed
1. Each authorized person is given an active RFID tag which has an unique tag ID for identification purpose.	 Hussar™ Slim Tag P/N: HKRAT-NT02
2. RFID readers are installed at the entrances or any areas requiring access control to read and identify the tags.	or  Hussar™ Slim Plus Tag P/N: HKRAT-NT02+
3. When the person carrying the tag approaches the locked door where a RFID reader is installed, tag ID is identified and verified. The door would be unlocked automatically if the tag ID is authorized for access.	or  Hussar™ Card Plus Tag P/N: HKRAT-CT02+
4. Further actions like automatically directing lift to certain floor could be performed by mapping the tag ID to desired actions.	 Empress™ Serial Port Reader P/N: HKRAR-EMSP  Empress™ Controller P/N: HKRAC-EMCL

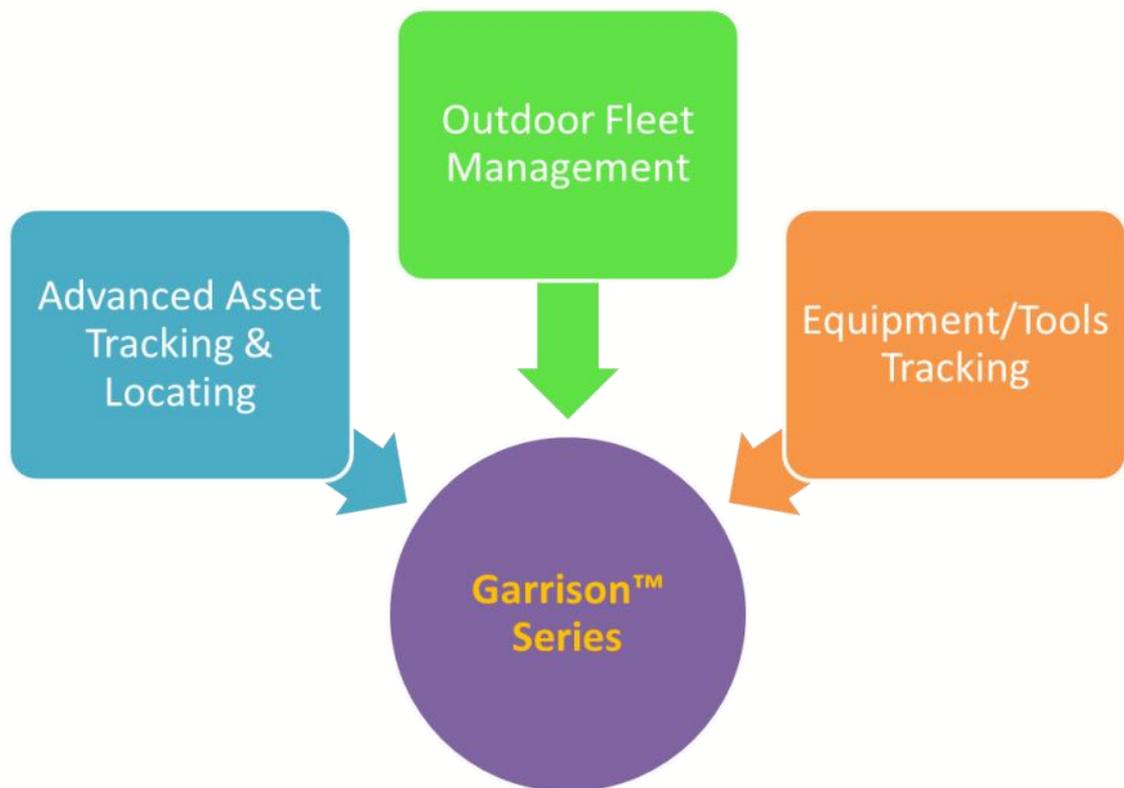
## Benefits

1. Enhanced security through limited access.
2. Increased control visibility for management purpose.
3. Accurate in-and-out records for tracking and monitoring.
4. Automatic services provide greater efficiency and satisfaction for customer and residents.

## Garrison™ Series

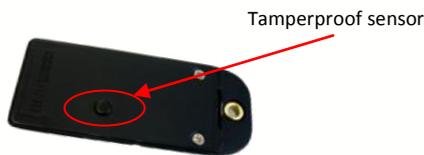
The Garrison™ Active RFID Tag family consists of a series of durable tags designed for tagging of asset. The tags are manufactured with robust plastic to provide excellent durability for various usages even in harsh environments. The robust design enables them to perform reliably in environments with metal and other non-RF-friendly items. Accuracy and readability is guaranteed at all times.

Garrison™ Series Tags are best applied to objects used in heavy duty environment with their dustproof and waterproof protection standard.



## Advanced Asset Tracking & Locating

*Different asset tracking applications and solutions have been widely adopted to protect valuable assets and prevent losses for both companies and individuals. Our active RFID tags provide a full range of asset tracking solutions that can be customized for different situations, allowing users to safely and easily monitor their assets, especially for bulky assets at harsh environment.*



Identical items like servers could be managed by Responsive Tag, which not only locates the position of a particular server but also keeps track of it within the area.



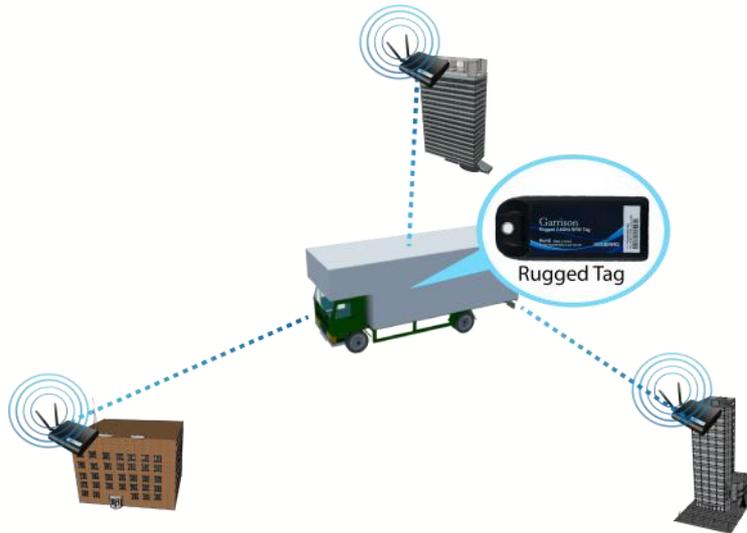
Operation Flow	Equipment needed
1. Attach tags onto items required to be tracked so each item is represented by the unique ID of the tag attached.	 Garrison™ Responsive Tag P/N: HKRAT-ZT02
2. Install active RFID readers in the area for asset tracking.	 Empress™ Reader
3. When the item is moved out of the tracking area or the tag is removed from the item without permission, alarm will be triggered.	
4. If the user want to identify a specific item out of a batch of identical ones, the LED light on the tag could be triggered to flash by sending a signal to the tag from the reader.	

### Benefits

1. Enhanced asset management with real time location tracking.
2. Prevent unauthorized removal or relocation of asset.
3. Locate items efficiently and quickly.
4. Provide visibility of operation flow for monitoring purposes.

## Outdoor Fleet Management

*Fleet management is now made easier with the use of Garrison™ Rugged Tags. Robust casing and replaceable battery design of the tag allows much longer useful life. Used with Empress™ Active RFID Readers, accurate location tracking is available.*



Each checkpoint the truck needs to go to has an active RFID reader installed. Once the truck with a Rugged Tag enters the checkpoint, the tag ID is sent to the reader and then to the server.

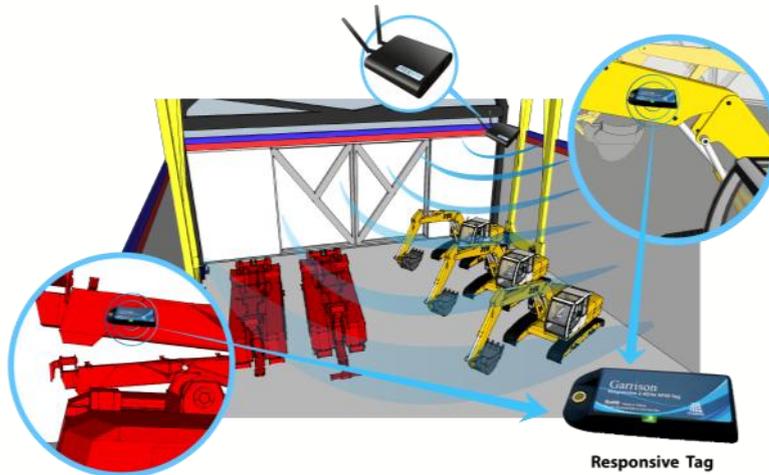
Operation Flow	Equipment needed
<p>1. Attach tags onto vehicles required to be tracked of and install active RFID readers on the delivering points.</p>	 Garrison™ Rugged Tag P/N: HKRAT-RT02
<p>2. When the vehicle arrives at the delivery point, the tag ID is immediately sent to the reader.</p>	
<p>3. Once the reader receive such information, the tag ID is sent to server via internet for control and checking purpose.</p>	<p>Empress™ Reader</p>

## Benefits

1. Reduce manual cost and time cost in locating vehicle.
2. Enhance efficiency with better fleet management for daily operation.
3. Generate detailed monthly report for better planning and monitoring.
4. Provide efficient and on-time delivery.

## Equipment/Tools Tracking

To manage valuable equipment and tools stored in large outdoor areas efficiently, a complex inventory management system is often required. Through adopting our active RFID equipment for equipment/tools tracking in industrial or harsh environment, items can be managed in an organized way which improves the whole inventory system and reduces costs in the long run.



Each valuable equipment stored in the area has a tag with unique tag ID. Readers in the area keeps reading the tag ID to ensure item is not missing.

Operation Flow	Equipment needed
1. Attach tags onto equipment required to be tracked so each item is represented by the unique ID of the tag attached.	 Garrison™ Rugged Tag P/N: HKRAT-RT02
2. Install active RFID readers in the storage area.	or
3. Operators are able to tell the status and location of each item using PC.	 Garrison™ Responsive Tag P/N: HKRAT-ZT02
4. If a certain stored item is moved out of the storage area, the reader could not detect the tag on the item anymore and warning could be issued.	 Empress™ Reader

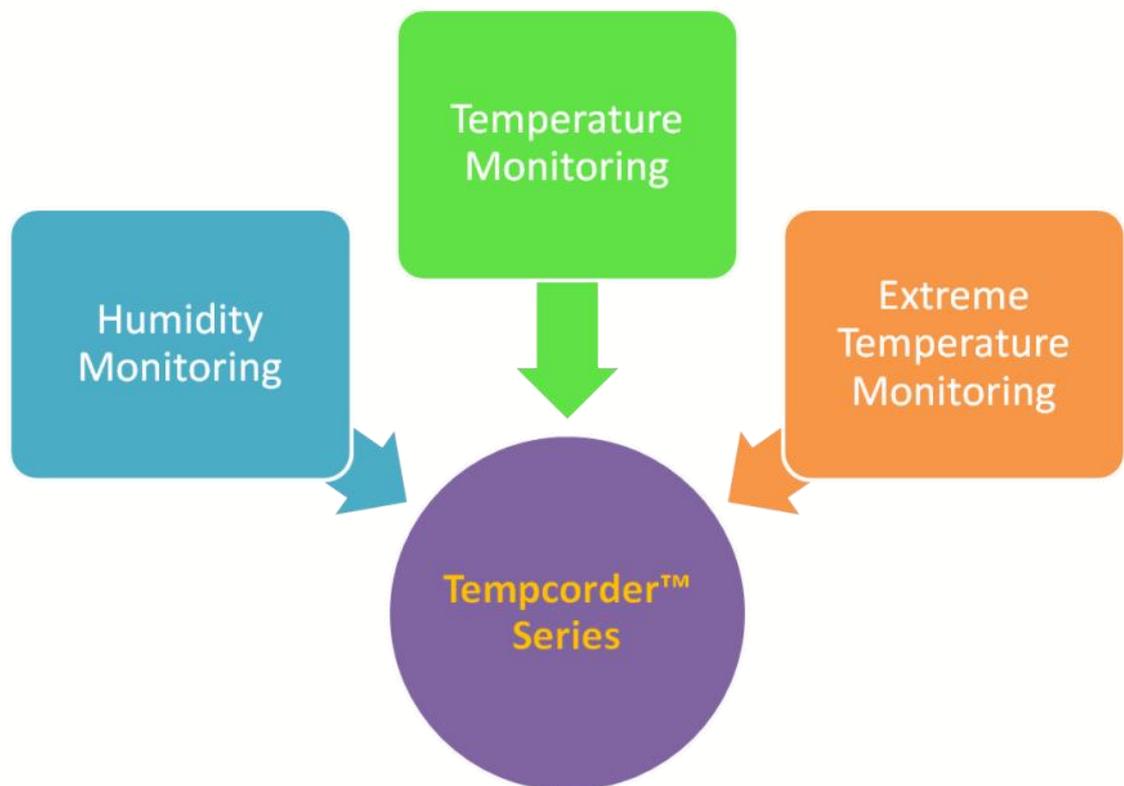
## Benefits

1. Reduce manual cost and time cost in stock taking.
2. Enhance efficiency with better inventory management.
3. Generate detailed monthly report for better planning and monitoring.
4. Eliminate errors in stock in-out and stock records.

## Tempcorder™ Series

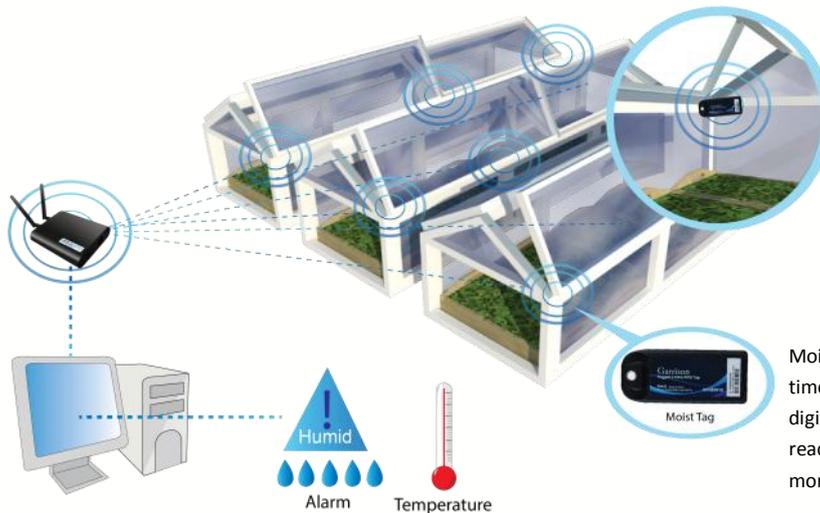
The Tempcorder™ Active RFID Tag family consists of a series of environment sensing active RFID tags equipped with accurate digital sensors and powerful RFID functionality. Not only do all Tempcorder™ Active RFID Tags provide excellent reading range and reliability, their unique product design allows flexibility in applying tags on different objects.

Tempcorder™ Series Tags are best used for environment monitoring. Their accurate digital sensors do not require any calibration and thus reduce operation cost and increase accuracy for environment monitoring .



## Humidity Monitoring

Humidity level is of significant importance for industries which the dryness level in surrounding areas greatly influence product quality, such as art museums, greenhouses and wine cellars. With Tempcorder™ Moist Tag, humidity and temperature information could be recorded accurately and timely, building an automated environment control system.



Moist Tags are placed around the greenhouse. Real time temperature and humidity readings taken by the digital sensor in the Moist Tag are sent instantly to readers. Data is then sent to computer for close monitoring of the environment in the greenhouse.

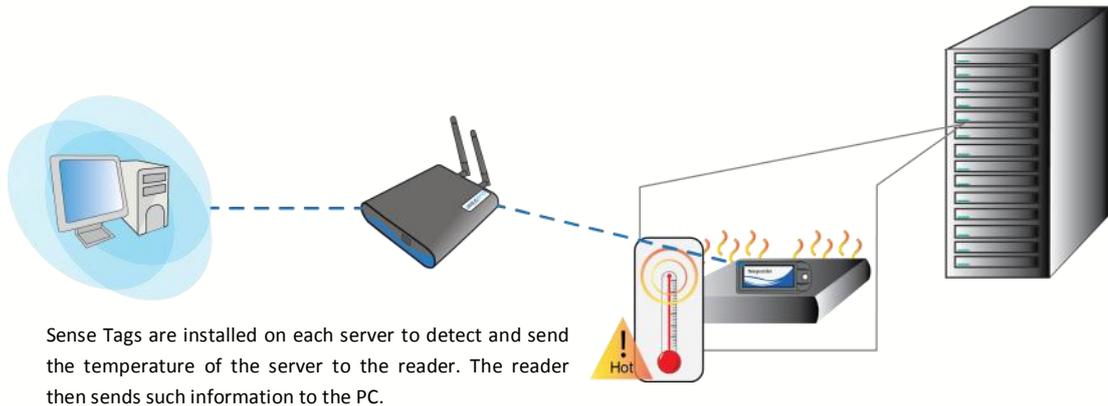
Operation Flow	Equipment needed
1. Moist tags are placed around the greenhouse, while readers are installed in each area and connected to the PC.	 Tempcorder™ Moist Tag P/N: HKRAT-HT02   Empress™ Reader
1. Real time humidity and temperature information is sent along with the tag ID to the reader.	
2. Humidity changes in the environment are sent to and shown in the PC, enabling instant and accurate environment control.	

## Benefits

1. Save energy by optimizing greenhouse's temperature and humidity instantly using data from the monitoring system.
2. Closely monitor environment parameters timely to prevent loss.
3. Save manual costs in measuring and recording data.

## Temperature Monitoring

*Temperature control has become increasingly important and different tools for environment monitoring and hazard prevention are introduced to ensure smooth operations for various industries. With Tempcorder™ Sense Tag, the most advanced wireless solution is available to corporations for easy and convenient environment control.*



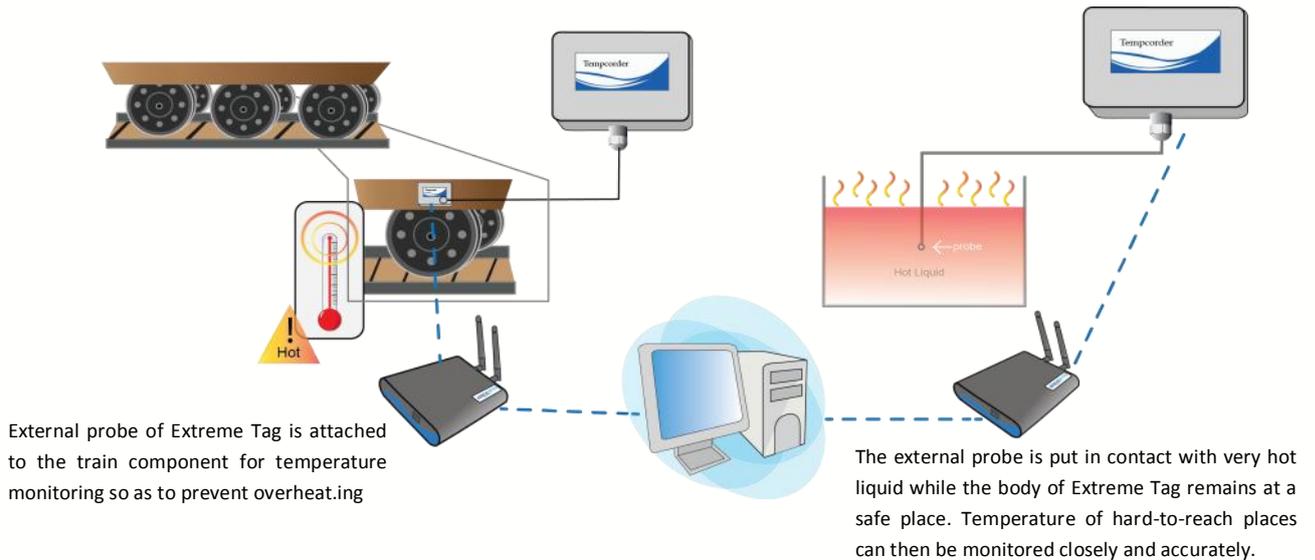
Operation Flow	Equipment needed
1. Tags are attached onto the objects or environment where temperature is required to be monitored.	 Tempcorder™ Sense Tag P/N: HKRAT-TT02   Empress™ Reader
2. Tags obtains and send temperature data to the reader along with their tag IDs. The reader then sends such data to the PC.	
3. Any environment changes are detected and reflected on the PC instantly with line graph plotted for convenient monitoring.	
4. Alarm is triggered when the temperature reaches an unusual level.	

## Benefits

1. Ensures safe operation processes and prevents malfunctioning or overheating of machines.
2. Allows easy monitoring of environment changes with accuracy and timeliness.
3. Provides periodical temperature data records for trend analysis and better environment control.

## Extreme Temperature Monitoring

*Monitoring temperature in hard-to-reach or dangerous locations, such as railway and industrial sites, has always been a difficult task. To solve the situation, Tempcorder™ Extreme Tag, with its unique design and excellent readability, helps obtain real time accurate temperature information automatically to avoid any hazards at the earliest stage.*



Operation Flow	Equipment needed
1. In measuring extreme temperature, the external probe of the tag is placed in contact with the object while the body of the tag remains at another location which is of less extreme temperature.	 Tempcorder™ Extreme Tag P/N: HKRAT-PT02   Empress™ Reader
2. The reader receives temperature data from the tags and send the data to the PC.	
3. Changes in the temperature are reflected on the PC correspondingly presented in the form of a table or graph.	
4. Alarm will be triggered when the temperature reaches an unusual level.	

### Benefits

1. Allows accurate temperature measurements in extreme environment which is dangerous for human.
2. Provide great flexibility and convenience for applications in extreme conditions with the external probe design.
3. Prevent overheating and hazards through instant detection and warning system.



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