

IDRO Co., Ltd. Company Profile



[idro.co.kr](http://idro.co.kr)

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## 01 Introduction

- IDRO Co., Ltd.
- CEO's Message
- Organization Chart
- Company History
- Project Partners

## About IDRO

“IDentification with Radio and Optical” IDRO Co., Ltd.



### MISSION

We bring happiness to our customers through the best ICT technology.

### CORE VALUE



#### Best Quality

Developing ICT products of world-class quality



#### Compliance

Performing work based on honesty and trust



#### Ownership

I am the owner of the company



#### Craftsmanship

I am the best at the task that I am responsible for



#### Seek the best way

What is the best course of action based on the current situation?



#### Learning from the reading

We learn and grow through reading

## CEO's Message



### “To Be an IOT Device Creator & Leader”

IDRO aims to move forward as a company that leads the fourth industrial revolution with the best technology and know-how in the market

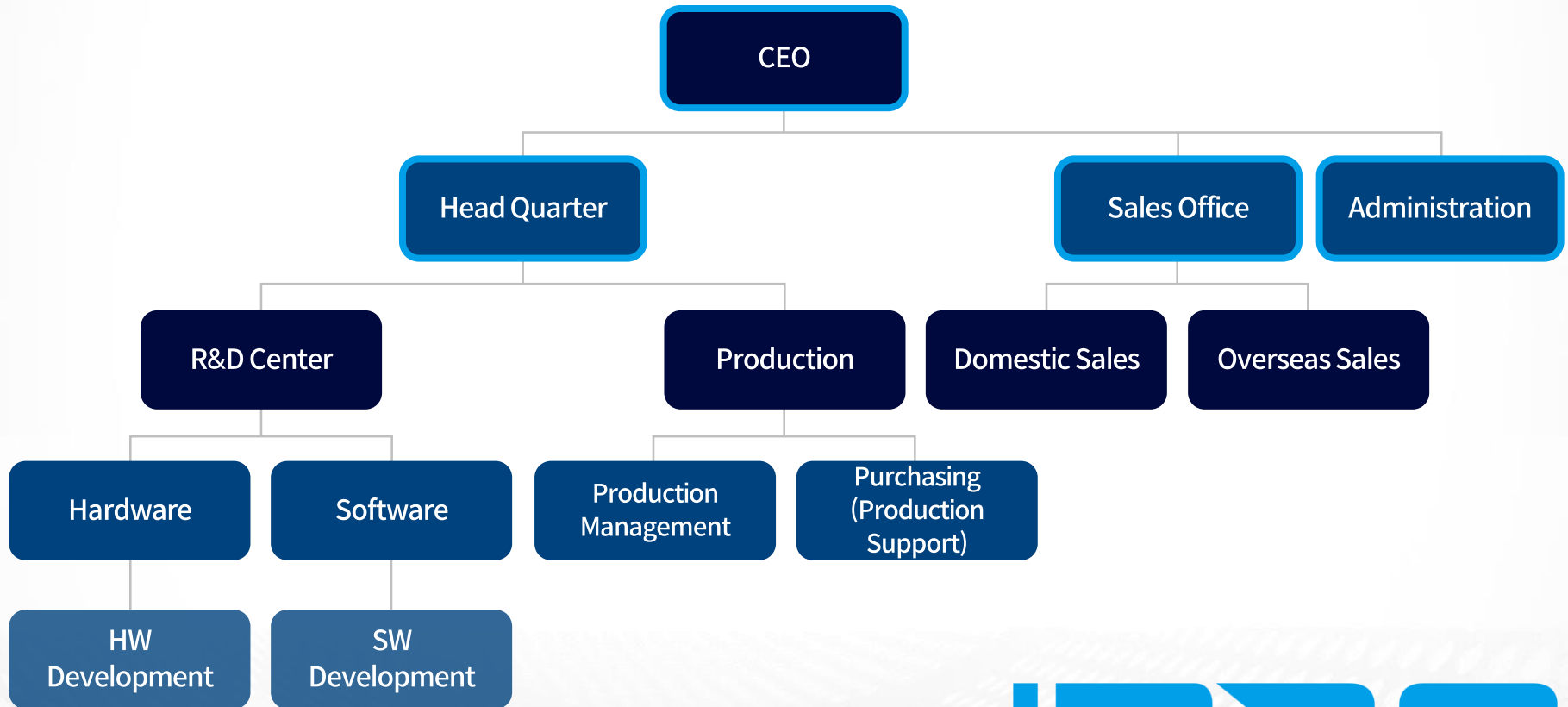
## The company that brings you happiness, IDRO Co., Ltd.

IDRO would like to extend our warmest greetings to our customers, and express our gratitude for your interest in our products.

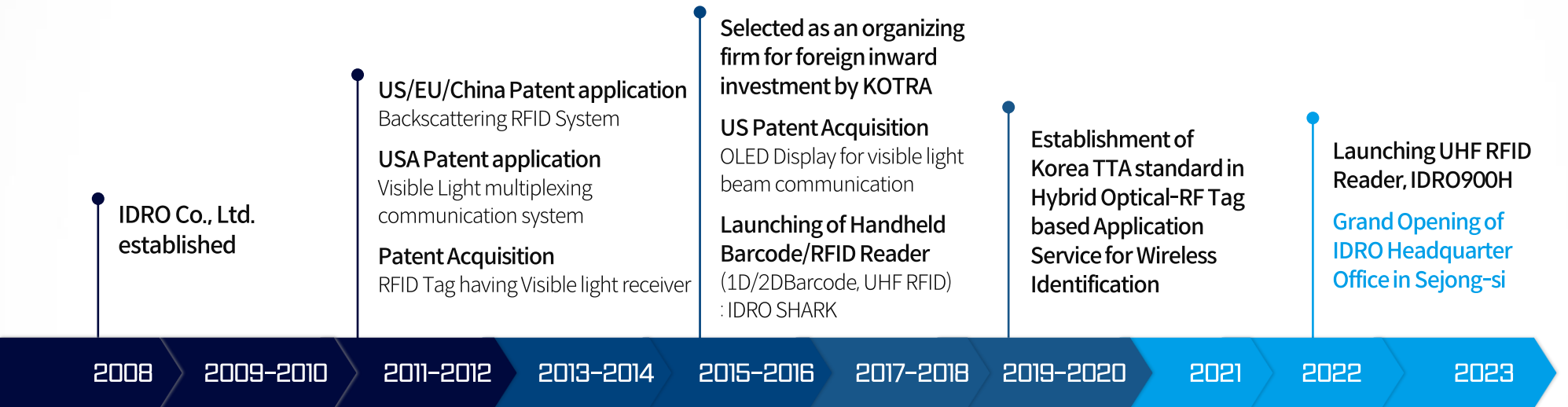
Our commitment to providing RFID products and wireless communication technology with a competitive advantage in the market is geared towards ensuring your complete satisfaction. We are confident that our expertise in RFID technology, combined with our range of competitive products, can provide you with the perfect solution to meet your needs. We look forward to partnering with you and contributing to your success.

IDRO Co., Ltd.  
CEO Yanggi Kang

## Organization Chart



## Company History



2008

2009-2010

2011-2012

2013-2014

2015-2016

2017-2018

2019-2020

2021

2022

2023

### Patent Acquisition

- Backscattering Type RFID Communication System
- Visible Ray Multiple Communication System

### Development of UHF SemiActive Optical RFID Tag

RFID Demo Program, Reader@Express Host Library SDK

### Acquired a total of 11 patents,

including RFID Tag and RFID server authentication methods, OLED displays for visible light communication, and more

### Adopted TTA standard for Optical RFID core technology

Win the award of Global RFID Enabling Technology Leadership Award (Frost & Sullivan)

### Development of IDRO900ME Reader module with Impinj E710

### Mass production of Passive Optical RFID Tag IC

## Projects Partners

IDRO Co., Ltd. **collaborates with government organizations, government department, and global companies** based in Korea.

We value these partnerships and our experience working with various companies in different industries **enables us to provide the best solutions using RFID technology.**







## 02 Awards, Patents and Certifications

- Awards
- Patents and Certifications

## Awards

# 2018 Frost & Sullivan Award

IDRO Co., Ltd have been **awarded the 2018 Global RFID Enabling Technology Leadership Awards by FROST 7 SULLIVAN.**

We will continue to strive for better innovation without setting for the current success.



Source: frost.com



# Patents and Certifications



**US**



**EUROPE**



**KOREA**



**RoHs**



**CHINA**



**JAPAN**



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}

**Additionally, more than  
20 patents and  
certifications have  
been registered**



## 03 Products and Solutions

- Product line up
- Optical RFID System
- Smart Passive Sensor (SPS)
- UHF RFID Readers
- RFID Module
- RFID Antenna
- RFID Tag

## Product line up

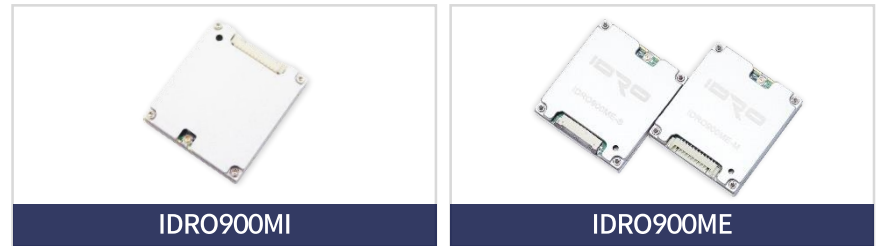
### Optical RFID & UHF RFID Reader



### Handheld Reader



### UHF RFID Module



### Antenna & Tag



## Optical RFID System

The **Glowfly**® product line can handle both multi-reading functions of RFID and single-reading functions like barcodes **with single device**.

International Standard  
RFID

IDRO  
Glowfly® product line

Optical RFID

Optical RFID System

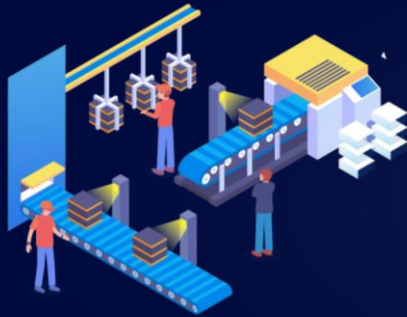
IDRO

## Optical RFID System



- ✓ Acquire **only the desired product information** depending on the range of visible light
- ✓ Possible to **accurately track and encode** a single product
- ✓ Recognize **more than 800 product information** per second
- ✓ Recognize the product information at a distance of **up to 5 meters**
- ✓ Applicable to **industries in various field**

## Applications



Conveyor applications



Process Management



Vehicle Production Management

## Optical RFID Products

### Optical Fixed Reader



### Optical Handheld Reader



### Optical Antenna



### Optical Tag





## SPS (Smart Passive Sensor)

# What is SPS?

It is a sensor that is capable of **collecting real-time temperature and humidity data**, and it is powered by **RF radio waves**.

Compare with standard sensor



No battery required



No maintenance required

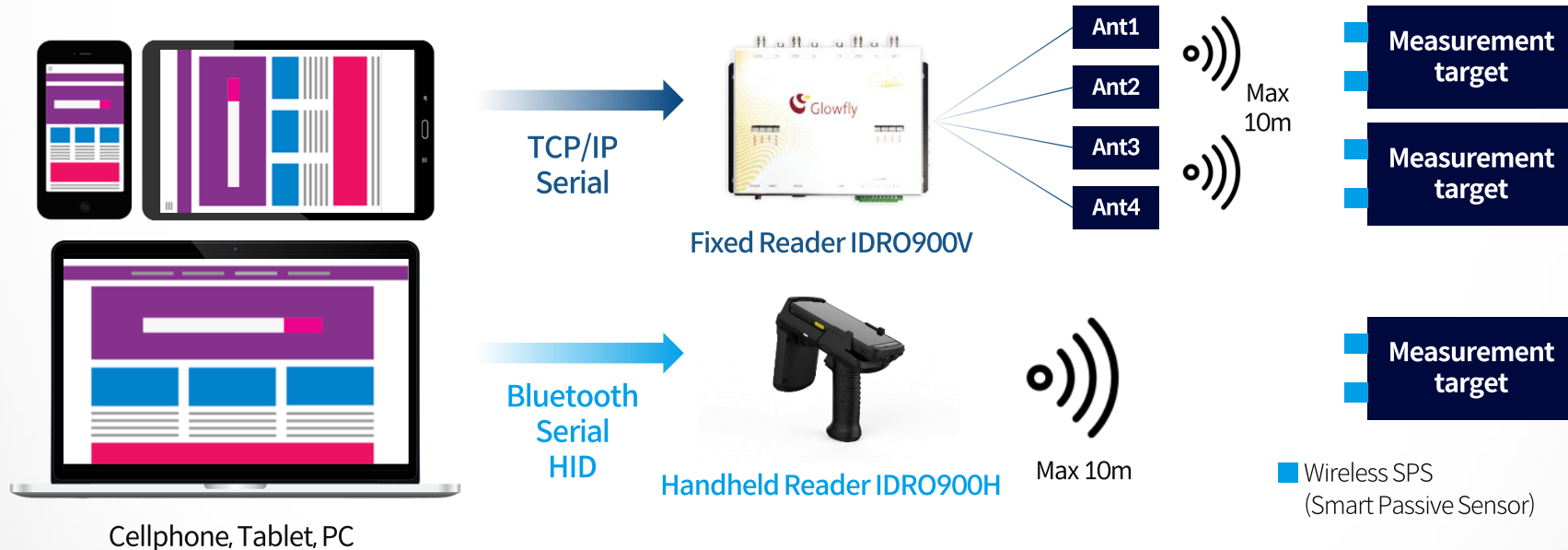


Low cost



Compact size

### System Diagram



## SPS Solution Products

### Fixed RFID Reader



### Fixed RFID Reader



### Fixed RFID Antenna



### Handheld RFID Reader



# SPS temperature sensor tag

## Label Type



## Metal Tag Type



# Field of application



Panel board



Fresh Food



Health Care

## UHF RFID

- ✓ Advantageous on recondition of many tags because it has **wide range of area for the recognition**
- ✓ Able to use the tag **semi-permanently by data encoding**
- ✓ Able to recognize **over 800EA of product information per second**
- ✓ Able **to recognize in 3-4m distance** in general (It could be differ by tags)
- ✓ Can be used in **various fields and industries**

## Applications



Authenticity  
check



Item tracking

Access control



Stock  
management



## General RFID Products

### Fixed RFID Reader



Model name : IDRO900F

### All-in-one RFID Reader



Model name : IDRO900EAS

### Desktop RFID Reader/Writer



Model name : IDRO900RWi

### Handheld RFID Reader



Model name: IDOR900H

## RFID Module

**IDRO900MI**



**IDRO900ME**



## Field of application



**RFID Printer**  
Industrial / Portable



**RFID Handheld Reader**



RFID antenna **plays very important role in the performance and efficiency** of RFID system.

It affects RFID system design and performance optimization because there are **differences in performance and efficiency depending on the antenna's size, shape and type.**

IDRO has industry-leading technology and experience.

Based on this, **we propose the optimal RFID System according to the intended use and user environment.**



## RFID Antenna

### Antenna for Optical RFID



Hybrid type product. **Able to read a single product tag by visible light** and also **able to do multi recognition** as a general antenna.

### Circular Antenna



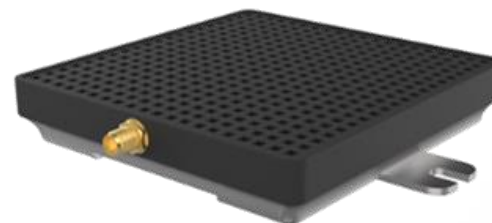
The most commonly used type because **it can send and receive tag information in various directions.**

### Linear Antenna



Has long-distance recognition capabilities due to its **ability to focus the radiation direction of radio waves**, which allows it to send and receive strong radio waves in a specific direction.

### Nearfield Antenna



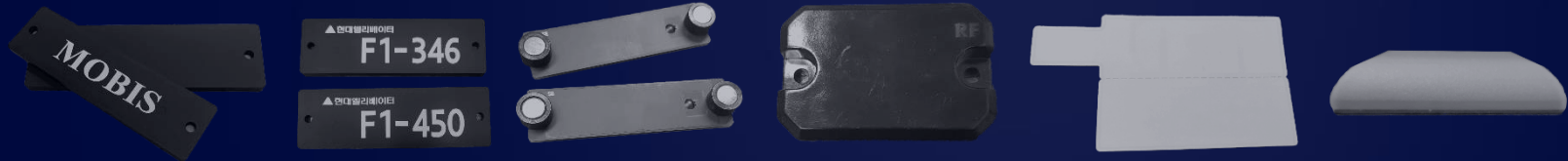
Type that **can be used in place which there is a lot of interference from the other tag** due to its short radiation direction for radio waves (Which also means a short recognition distance).



RFID tags are being used in many different fields and industries due to **their fast data transfer rate, multi-recognition capability, and long-range recognition.**

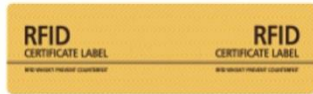
As there are various types of RFID tag available in the market, it is **crucial to select the right tag for the system you want to apply.**

IDRO has industry-leading technology and experience and can **propose the optimal RFID tag based on the purpose of use and user environment.**



# RFID TAG

## Label Tag



## Special Tag



## Field of application



**Industrial**

Process  
Metallic mold  
Asset



**Public**

Library  
Tree  
Facility



**Logistic/  
Distribution**

Warehouse  
Logistic



**Others**

Apparel  
Liquor authentication



There are different types of tags that suit each industry



IDRO

Thank you.

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