



# Dahua Electronic Article Surveillance System

ISC-EAA Series Products



August 2021

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# Background



Retail stores as the place with a large flow of customers and strong liquidity of goods are often visited by thieves. The shopkeepers or clerks can't keep eyes on what customers are doing inside the store. Shoplifting happens frequently and many retailers suffer from loss heavily.

In order to better protect the interests of store owners, a variety of loss prevention systems have gradually emerged, among which **CCTV and EAS systems** are the most widely used in the **retail** industry.



EAS “electronic article surveillance”, was first invented by an American in the 1960s. The global EAS market demand in 2020 is approximately **\$1.12 billion**, mainly concentrated in Europe, North America, South Pacific, East Asia and other regions with developed retail industry.

# Industry Background



EAS systems integrates with many advantages, such as easy operation and a high success rate of loss prevention. According to statistics of the U.S. retail industry, stores who installed EAS have a 25% lower losing rate than stores without EAS installed. Currently, almost all of retail chains have installed EAS system and have a professional loss control department who is responsible for purchasing and equipment management.

Usually, a set of EAS system are comprised by three parts, including **antennas**, **labels or tags**, **detachers or deactivators**. And three kinds of technology of EAS system are widely used in modern retail industry, **acousto-magnetic (AM)**, **radio frequency (RF)** and **electro magnetic (EM)**.





# Application



**Supermarket**



**Electronic Store**



**Clothing Shop**



**Cosmetic Store**



**Shoes Store**



**Boutique**



**Household Store**



**Pharmacy**

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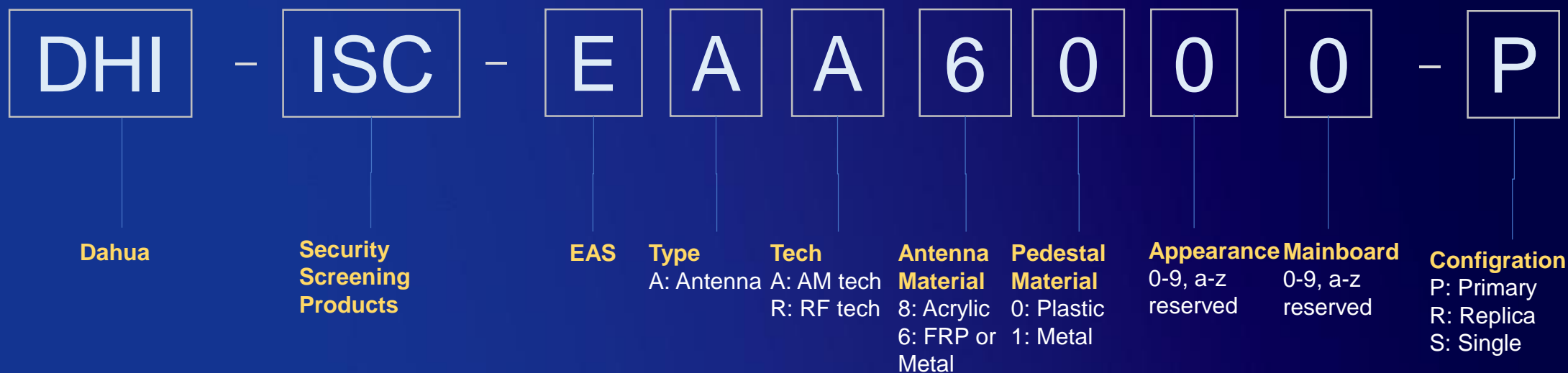
02 AM System Introduction

# Naming Rule



Dahua EAS system mainly adopts AM and RF systems, and various types of antenna systems can meet 90% of customers' demands.

## EAS antenna naming rule

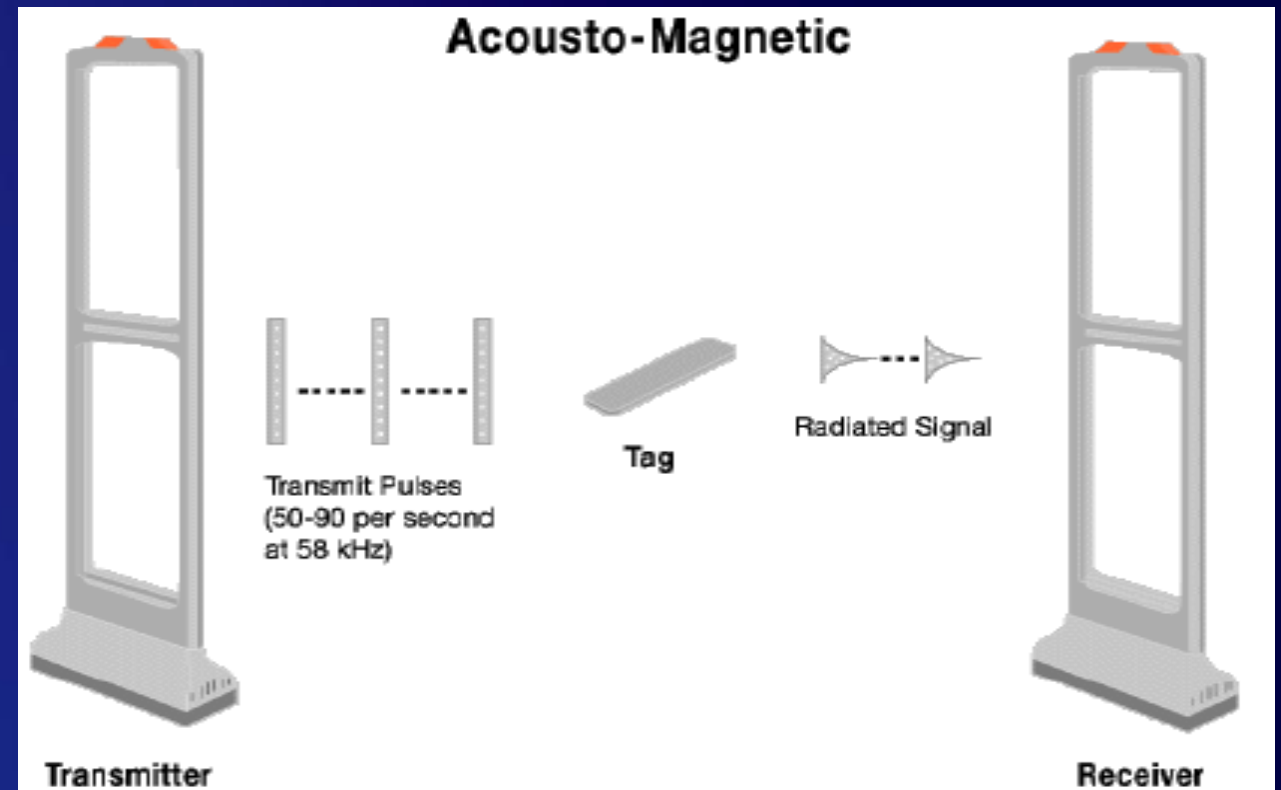


# AM Working Principle

AM antenna applies the physical principle that the tuning fork will cause resonance only when the inherent frequency is the same. When the AM tag fixed on the commodity enters the detection area of the antenna, resonance signals will be generated. When the receiving antenna receives resonance signals for four consecutive times, the system will generate an alarm. The AM antenna works at a fixed frequency of 58kHz.

## Characters of AM System:

1. High detection rate;
2. Low false alarm rate;
3. Strong anti-interference ability;
4. Long detection distance;
5. Small size label volume;
6. High cost and price.





# AM System Introduction



Dahua AM system is mainly suitable for middle and high-end customers. It has rich functions, stable performance, high detection rate, and can realize linkage with CCTV system.



8 Series AM Antenna



6 Series AM Antenna



AM Label



AM Water Proof Label



AM Tag



AM Deactivator



AM Detacher

# AM System Introduction



## AM Antenna



### 8 Series AM Antenna

1. Frameless Acrylic antenna
2. Embedded blue LED working light
3. Build-in buzzer in pedestal
4. Audible and visual alarm



### 6 Series AM Antenna

1. FRP frame antenna
2. Red LED alarm light
3. Build-in buzzer in pedestal
4. Audible and visual alarm

# AM System Introduction



## AM Antenna Highlights



8 Series AM Antenna

1. Widely used in retail stores, the detection rate is high, the actual test is more than 90%;
2. Fully applicable to other manufacturers AM soft labels and hard tags;
3. High stability, strong anti-interference ability;
4. The alarm is loud and the volume is adjustable
5. Sensitivity adjustable
6. The detection distance is up to 1.8m for soft label and 2.8m for hard tag (Dual-side)
7. Wide working temperature: -5~50°C

# AM System Introduction



## AM Antenna Highlights



1. Only primary antenna needs power supply, and replica antenna obtains power through primary antenna
2. One primary antenna can drive two replica antennas
3. TX, RX and TR mode can be set for both primary and replica antennas.
4. Primary antenna can be connected to CCTV, and the alarm signal can be used to achieve stealer captured
5. Primary antenna can be configured by PC

8 Series AM Antenna

# AM System Introduction

## AM Label and Tag (Consumable Products)



AM Pencil Tag & pin

### Characteristics

1. Ideal option which is applied to soft goods
2. Reusable
3. Three dimensions optional: mini pencil, pencil, super pencil
4. 1.4 m detection distance at most
5. Long-term storage
6. Higher stability than soft label
7. Can be used as test tag



AM Label



AM waterproof label

### Characteristics

1. Widely used on packages or commodities
2. Single-use
3. Cheaper than tags
4. Barcode can be customized
5. 0.9 m detection distance at most
6. High temperature/ strong magnetic field/ bending can damage labels
7. Short-term storage: less than 1 year
8. Can not be printed on goods



# AM System Introduction



## AM Detacher and Deactivator



Sunk Detacher

### Characteristics

1. Detach pin and tag
2. 10000GS Super magnetic



AM Deactivator

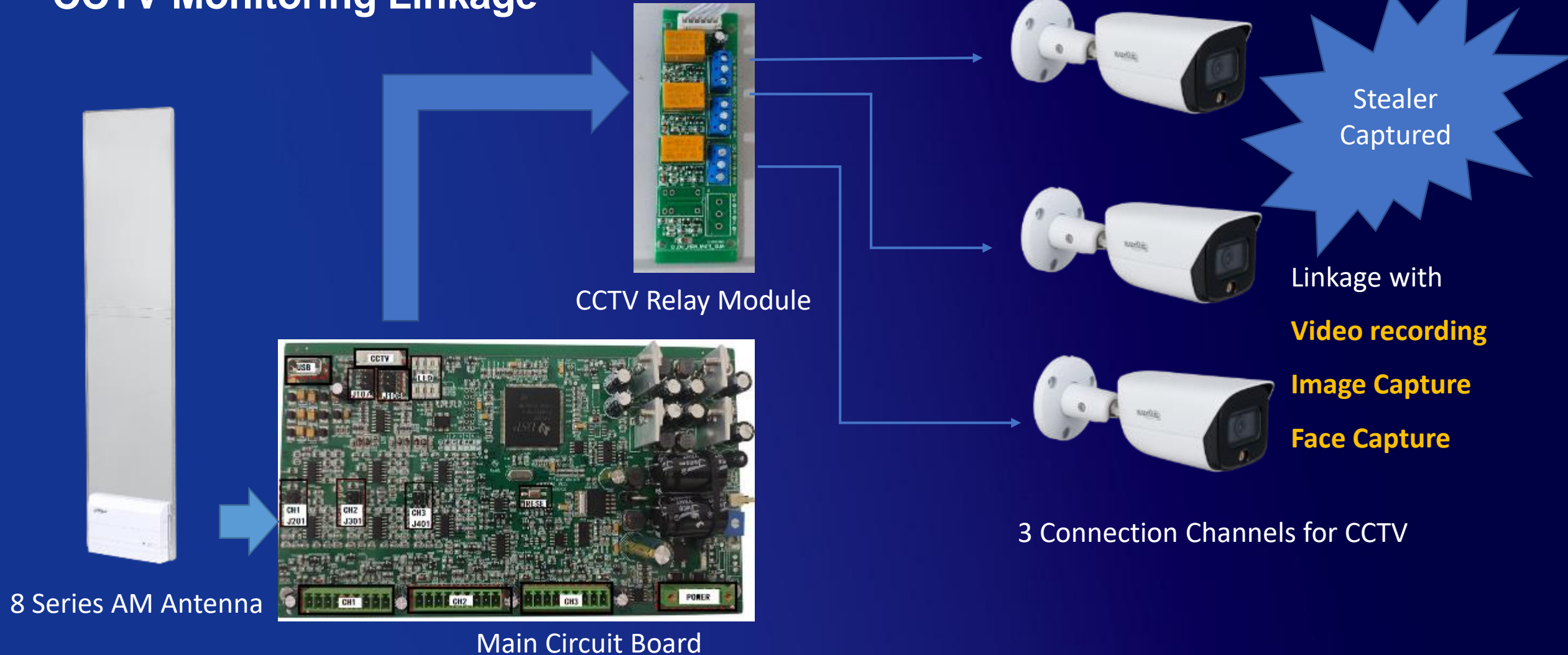
### Characteristics

1. For deactivating labels
2. 5cm deactivating distance
3. Audible and visual alarm
4. Deactivating speed 120 pcs per minute
5. 58kHz working frequency

# AM System Introduction



## CCTV Monitoring Linkage



# AM System Introduction



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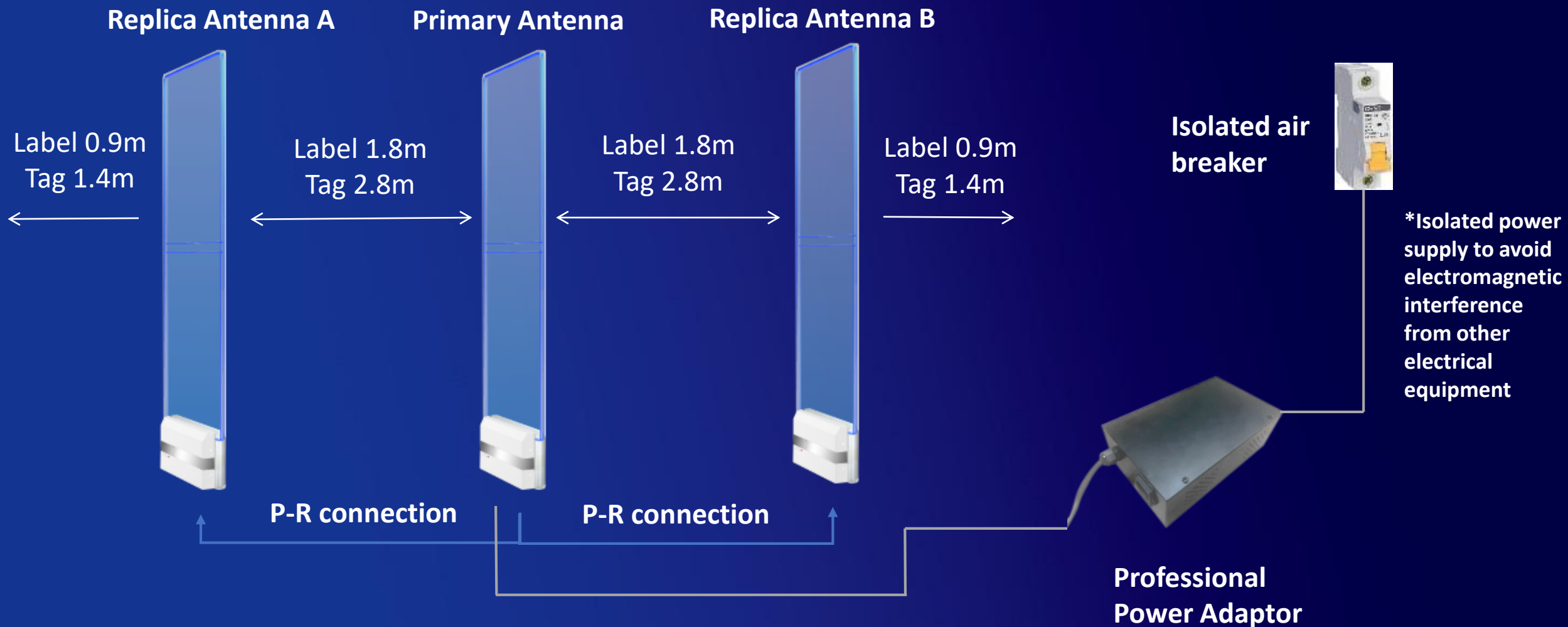
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# Solutions

## AM Multiple Antennas Solution



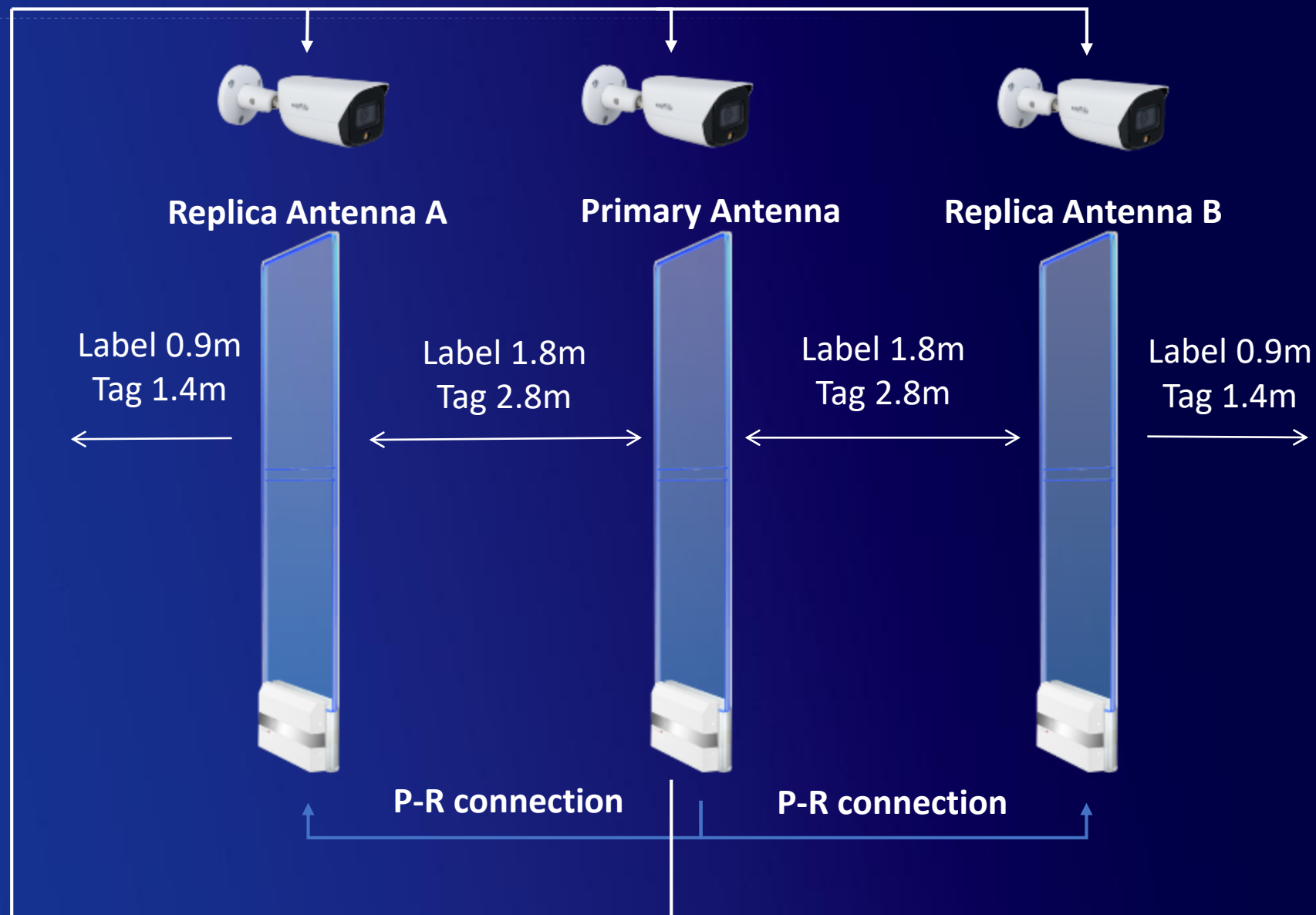


# Solutions



## AM Multiple Antennas With CCTV Linkage Solution

Triger 3  
Channel  
Cameras



# Solutions

## Merchandise Store Solution

Steal Sound & visual Alarm

Linkage with Video recording,  
Image Capture, Face Capture

Entrance: EAS antennas

Cashier Desk: Detacher

Commodities: Tags

Aiming the Entrance:

7 Series IP Cameras



「 让社会更安全 让生活更智能 」

ENABLING A SAFER SOCIETY AND SMARTER LIVING