RFID VS EAS

RFID (Radio Frequency Identification)

EAS (Electronic Article Surveillance)

WHAT'S THE DIFFERENCE?

2 PARTS OF AN RFID SYSTEM

RFID Reader + Tag or label with RFID chip and anternna

3 PARTS OF AN EAS SYSTEM

At least one electronic antenna + An electronic tag + A deactivator or detacher

HOW THEY WORK

- Reader sends out a radio frequency signal
- Reader waits for a response from any tags in range

- Antenna sends out a signal in pulses that also power EAS tags
- Tags in range of the antenna respond
- Active tags trigger an alarm when passing by an antenna

ACTIVE VS. PASSIVE RFID

Active

- Tags have batteries and transmit an identification signal
- Extremely long read ranges up to 150 m
- Large memory capacity

Passive

- Tags have no battery and are powered by signal from readers
- Smaller, cheaper tags
- Broad range of form-factors for tags and labels

AM VS. RF

Acousto Magnetic (AM)

- 58 KHz
- Wider detection range than RF with less interference

Radio Frequency (RF)

- 8.2 MHz
- Versatile design ideal for packaged products

FREQUENCY & READ RANGES

Low Frequency (LF)
- 125–134 KHz
- Short read range up to 10cm

High Frequency (HF)
- 13.56 MHz
- Read range up to 1m

Ultra High Frequency (UHF)
- 865–960 MHz
- Read range from 5–6m up to 30m +

SCAN ME

FUN FACTS

Because an RFID system is very flexible, it can be customized easily with different types of RFID tags and readers.

The use of EAS in retail first started in 1966!