

WG RFID plus EAS TECHNOLOGY



Inventory Control, Logistics and EAS in One System

Exclusively from **WG Security Products Inc.**

RFID at a glance



WG RFID History



Since 2003, WG Security Products Inc. has been heavily involved in the field of Radio Frequency Identification (RFID). RFID enables retailers to track movement of any particular item that is tagged with an RFID label using radio frequency.



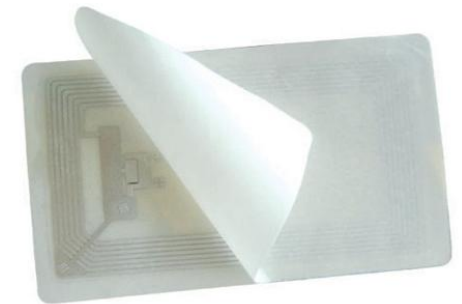
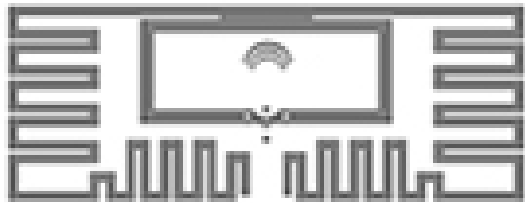
RFID plus EAS

While RFID has proven itself as a valuable tool in the logistical sphere of retail, the technology to apply it as an EAS system had not been perfected....until now.

With WG's revolutionary 3-D technology, reading an RFID coil integrated within an EAS hard tag is no longer a problem.

WG RFID plus EAS enables retailers to gather merchandise movement and inventory information collected in one centralized database as well as providing the established security of an EAS system.

How RFID works



The RFID coil is a device typically embedded into a label, but in WG's case, we insert it into an EAS hard tag, which carries information readable by an RFID reader.

RFID coils operate on EPC Global Gen II technology, the worldwide standard.

How RFID works

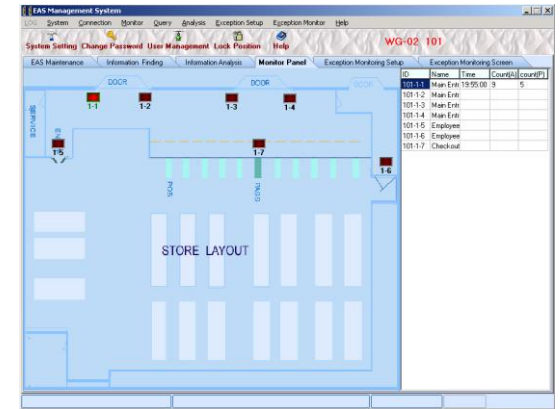


The RFID coil is assigned an identifier unique to that particular tag.

Identifiers are associated with merchandise, e.g. blue polo shirt or size 10 tennis shoe, and a centralized computer stores the data.

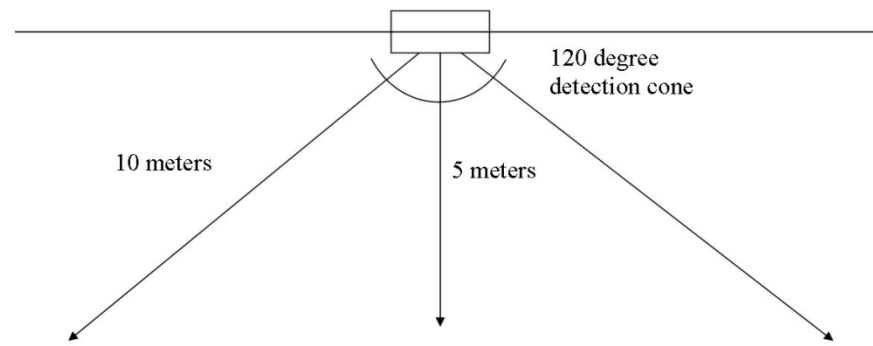
RFID readers can read multiple RFID-enabled hard tags at once and record data such as inventory numbers, quantity of types of products sold, and shrinkage numbers.

RFID plus EAS System Components



RFID Readers

The reader emits a cone-shaped field of radio frequency, guaranteeing a large area of coverage. There is no limit to the number of readers per system, but a single reader can cover a standard glass double-door entrance.



RFID plus EAS Tags

WG has integrated RFID coils with 58KHz AM technology, resulting in quality EAS hard tags with RFID tracking capabilities.

Two identifiers in one tag: RFID plus EAS

Ink plus Ferrite plus RFID: Three levels of protection



RFID Tags

RFID-enabled hard tags allow for larger-sized coils and greater detection than standard RFID labels.

Generally 2-D technology RFID coils inserted into labels are sufficient for RFID-only tracking. However with WG's 3-D reading technology, our coils have the ability to be used for RFID and EAS, with pick rates ranging in the meters.

Since the RFID coil is buried inside a hard plastic tag, there are no worries about body moisture, heat or any other environmental factors affecting or damaging the RFID functionality of the coil.

RFID Control Unit



The RFID controller connects up to four readers to a central computer via USB or RS-232, passing RFID data from the antenna to the computer.



RFID Desktop Reader



At Point of Sale, the RFID desktop reader deactivates and detaches the tag, while collecting and transferring RFID information to the central computer for database management purposes.

The desktop reader can be integrated with your current POS system for a smooth transfer of data from the RFID system to your sales software.

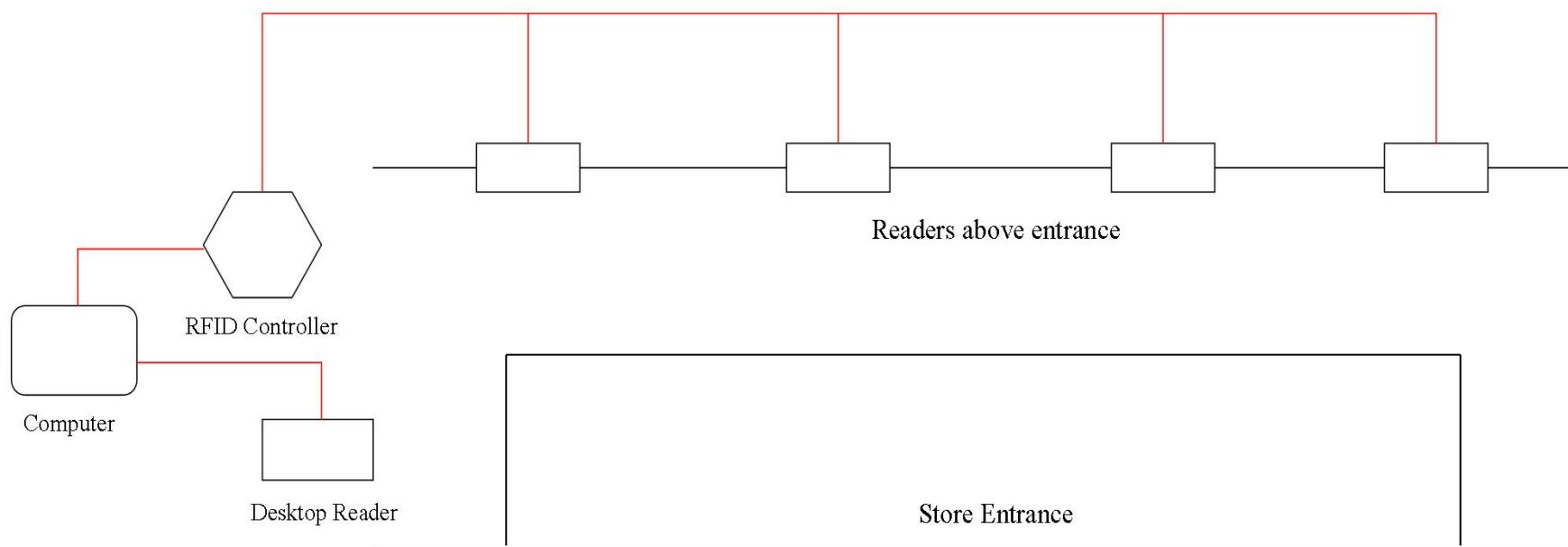
UHF RFID Reader Specs

- Operating Voltage: 20 - 28Vac/50 - 60Hz
- Power Consumption: < 10W
- Antenna Connection: TNC x 4 (50 Ohm)
- Communication Port: Ethernet (PoE 10/100MHz), GPIO, USB2.0
- Frequency Range: 860 - 960MHz
- Reader Reading Rate: up to 500 tags/s.
- RF Power: Max 32.5 dBm
- Distance: Read > 3 m, Write > 1 m (depending on label types)
- Size and Weight: 19 cm (L) x 17.5 cm (W) x 3 cm (H), 0.68kg
- Environmental Conditions: temperature - 20°C-60°C, humidity:<30%

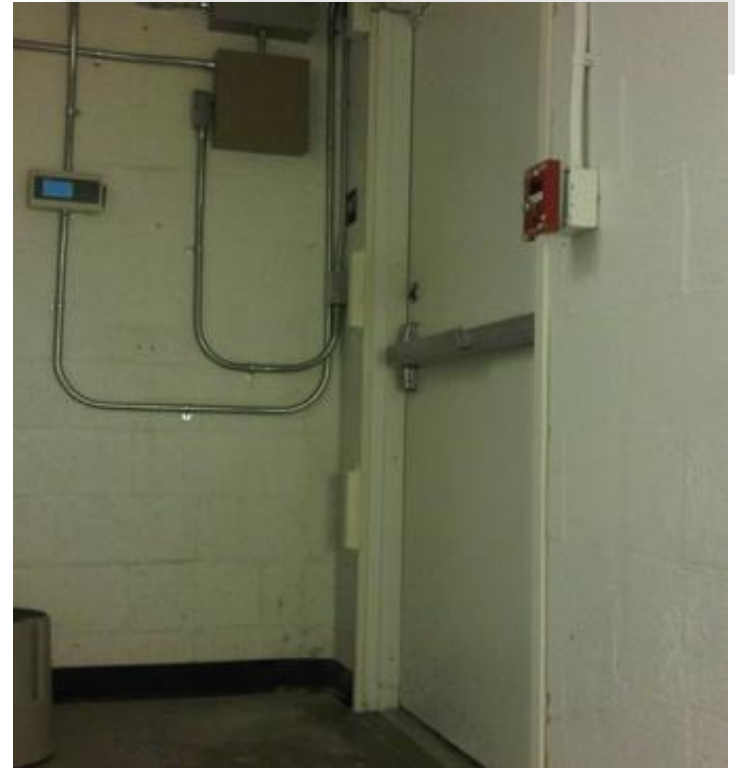
UHF RFID Tag Specs

- Protocol: EPC Class 1 Gen 2/ISO 18000-6C
- RFID Chip: Impinj Monza 4
- Operating Frequency: 860 - 960MHz
- EPC Memory: 496 - bit
- User Memory: 512 bits
- 32-bit code protection
- Dimensions: 56.12 x 36.03 mm

Basic RFID System Layout



Adaptability and Applications of RFID





Adaptability

The WG RFID plus EAS system is by no means a static system. Unlike EAS pedestals that perform one function in one location, RFID plus EAS is a completely adaptable system that can perform its many functions wherever the retailer sees fit.

RFID readers can be placed throughout your retail location to safeguard particular areas of perceived vulnerability or to protect and track your most sensitive merchandise.

Readers can be programmed to audibly alarm or stay silent on an individual basis, with alarm volume and type adaptable to the retailer's desire.

Fitting Room Security

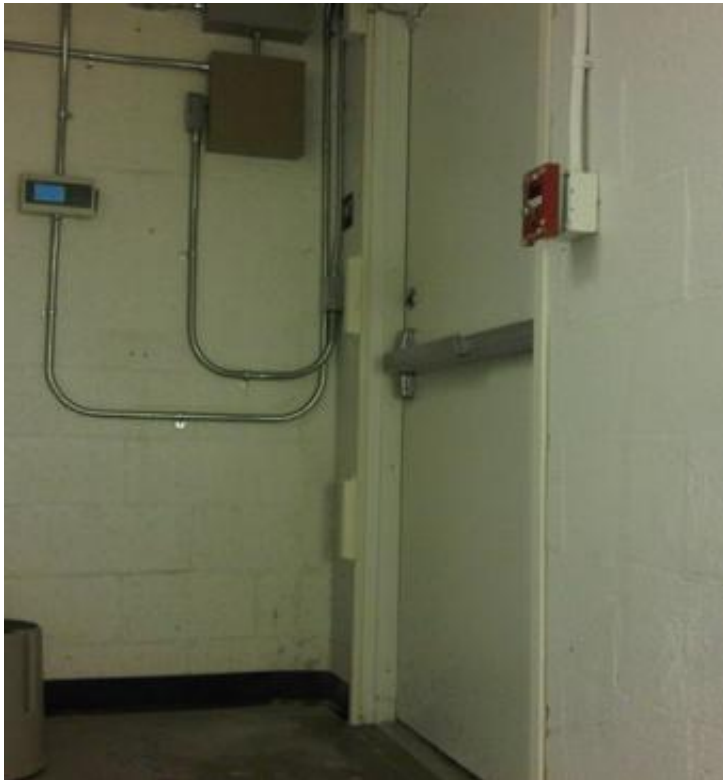


Place the reader in your fitting room area to track movement of items in and out of the rooms.

Data can be used to not only stop shoplifting, but also research which products are being tried on most, which ones get purchased more, etc.

Eliminate the labor cost of having an employee posted at your fitting rooms.

Employee Entrances and Exits



With employee theft comprising an increasingly sizeable portion of shrinkage every year, retailers need to be vigilant.

A reader placed in employee common areas and at exits is the perfect way to minimize this loss.

Loading Dock Security



Keep an inventory of new products coming into your store as well as be aware of any products illegally leaving.

Ensure the accuracy of quantities of products arriving from your Distribution Center.

Information Collection

RFID data collected can ensure proper inventory numbers, but also have security uses as well.

Monitor particular types of items that are being stolen, or attempted to be stolen, and plan store layouts accordingly.

See which items aren't selling with frequency and adjust your inventory accordingly.

Track progress of sales promotions.



WHY RFID plus EAS?

Inventory information

WG quality EAS security

Product sales information

Adaptability to your particular needs

