

# RFID Overhead-100



## Benefits:

- Improved store aesthetics, by having a store entrance free from obstacles
- Shrinkage reduction
- Combination of loss-prevention and product identification in one system
- Provides data to detect which product suffer more theft attempts
- Very quick detection
- Continuous detection field
- One primary unit can be connected to 1,2 or 3 secondary units, which reduces costs
- Plug and play installation

## Applications:

- Loss prevention at retail stores
- Loss prevention at warehouses
- Product tracking at backdoors, entrances, corridors, etc.

## Product overview

RFID Overhead-100 is a **loss prevention system** based on RFID UHF. It comprises an antenna with an embedded reader, controller and alarm combining loss-prevention and RFID functions in one system.

RFID Overhead-100 detects the tagged items that pass below the antenna, verify if those items have been paid, and triggers an acoustic and/or visual alarm if any item has not been paid.

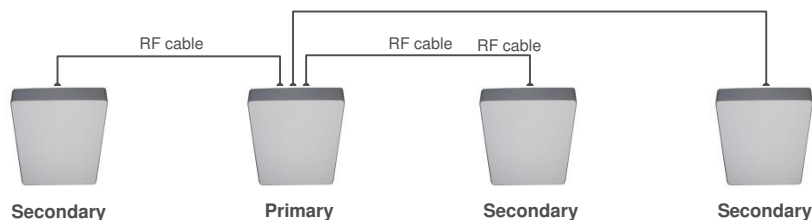
RFID Overhead-100 can use **four configurations** for checking if a tagged item has been paid:

- Checks the EAS bit of NXP chips
- Checks if the EPC code includes a pre-defined pattern that signals that the product has or not been paid
- Checks against the POS database if the product has been paid
- Checks bulk theft: trigger an alarm if a certain number of tags belonging to the same category are read in a certain time period (e.g. a few seconds).

RFID Overhead-100 comprises a **primary unit** and several **secondary units**:

- The primary unit has an integrated reader, a controller, an alarm, a visual alarm indicator and one directive antenna.
- Each secondary unit comprises one directive antenna and a visual alarm indicator.

As shown in the following illustration, up to 3 slave units can be connected to one master unit. This reduces costs for stores with wide entrance.



RFID Overhead-100 works with any hard and soft Gen2 RFID UHF tags.

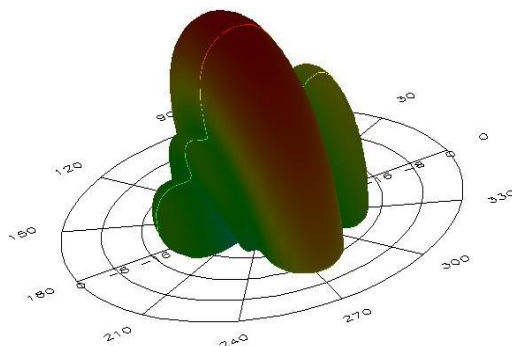
RFID Overhead-100 includes **configurable parameters** for minimizing false alarms.

RFID Overhead-100 can be ordered in 2 models:

- Model with suspended wires
- Model with a ceiling mount

## Radiation pattern

To minimize the detection of products inside the store, RFID Overhead-100 has a radiation diagram wide in one direction and narrow in the other (perpendicular) direction

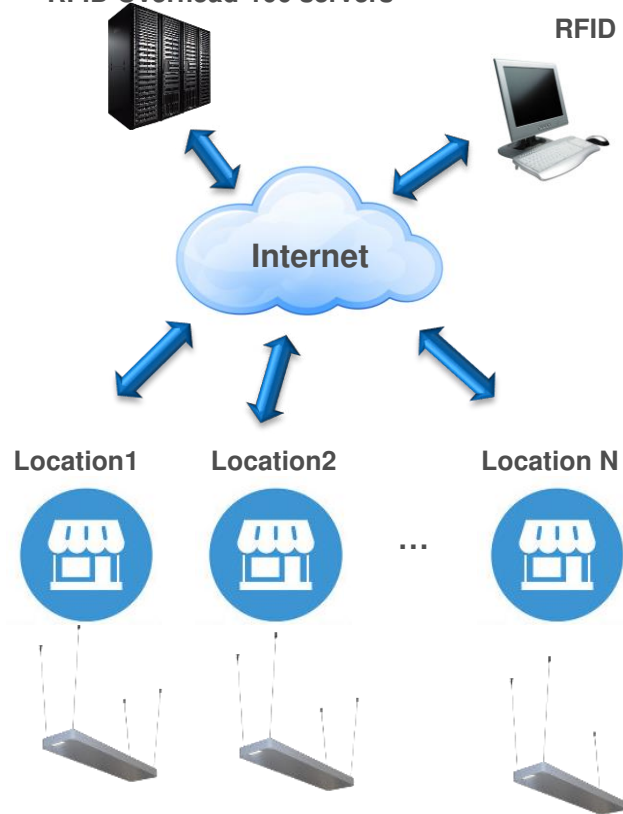


## Connection to RFID Overhead-100 cloud

RFID Overhead-100 can be optionally connected to RFID Overhead-100 cloud-based software platform.

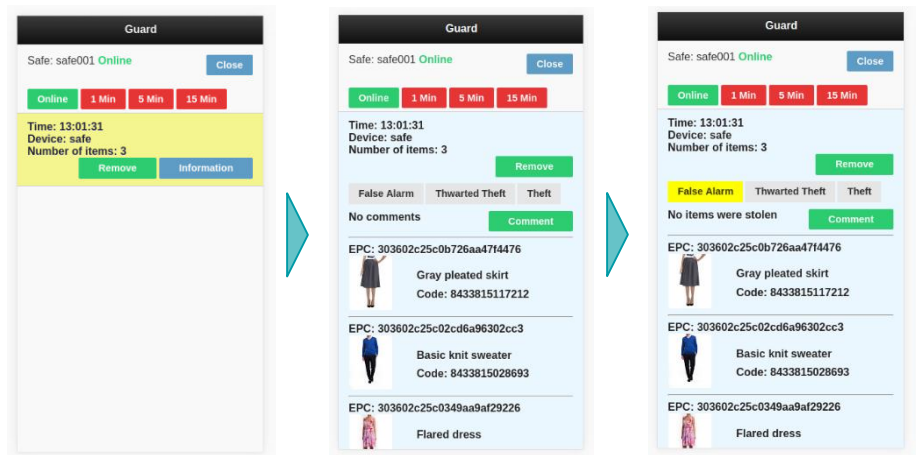
### RFID Overhead-100 servers

### RFID Overhead System GUI



The products that trigger an alarm can be shown on a **smartphone** managed by store staff or security staff, in order to:

- Thwart theft attempts
- Register the event: false alarm, thwarted theft, theft



This information can then be analyzed for **business intelligence** purposes:

- Theft attempts by day and time of day
- Products that suffer more theft attempts
- Stores with more theft activity



## Specifications

Operating Frequency	FCC (NA, SA) (902 – 928) MHz
Detection Height	6.5 - 9.8 ft (recommended)
	Maximum: 13.1 ft (Use above heights with caution. Read distance depends highly on tag model and products being used)
Radiation pattern	Fan beam
Beam width	20° / 90°
Polarization	Circular
Alarm Light	Light Emitting Diode (LED)
Alarm Audio	Signal Buzzer
Radiation angle	Fan shape
	20° (narrow direction) / 90° (broad direction) -15 dB side lobes
Alarm function Preset	System gives audio and light alarm by detection of any of the EAS supported modes
Power supply	Power over Ethernet Optional: External power supply
Energy Consumption	6 W max., 1,5 W stand by, 0,5 W sleep modus, <5µA power down
Reader Power	max. 31,5 dBm (may be limited to conform to some regulations)
Radiated power	2 W ERP, 3.2 W EIRP
Anticollision	Yes
Interface	Ethernet
Temperature range	-60°F to +131°F
Dimensions	34.6 inches x 8.7 inches x 2.2 inches
Antenna weight	Primary unit: 9.5 lbs
	Secondary unit: 8.6 lbs
Material Housing	Aluminum and methacrylate
Color	Off white