

Catalyst RFID Safe

Catalyst RFID Safe is a loss prevention system based on UHF RFID. It comprises an antenna with an embedded reader, controller and alarm combining EAS and RFID functions in one system.

Features & benefits:

- Combination of EAS and RFID in one system, reducing labelling costs
- Open entrance area dramatically improves store aesthetics
- Shrinkage reduction
- Provides data to detect which products suffer more theft attempts
- Provides statistics on EAS alarms
- Works with multiple reusable UHF hard tags, sew in labels or hand tags using EPC Gen2 chips
- Plug & play installation

Applications:

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

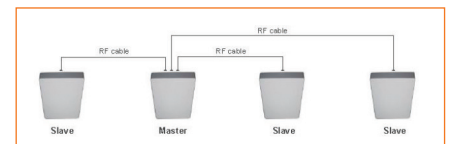
Catalyst RFID Safe detects the tagged items that pass below the antenna, verifies if those items have been paid for and sounds an alarm if not three configurations can be used for verifying if a tagged item has been paid:

- Verifies the EAS bit of NXP chips;
- Verifies if the EPC code includes a pre-defined pattern that signals that the product has or not been paid for;
- Verifies against the POS database if the product has been paid for. This requires an external computer.

Catalyst RFID Safe compromises a master unit and several slave units:

- The master unit has an integrated reader, a controller, an alarm, a visual alarm indicator and one directive antenna;
- Each slave unit compromises one directive antenna and a visual alarm indicator.

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



Radiation pattern:

To minimise the detection of products inside the store, Catalyst RFID Safe has a radiation diagram wide in one direction and narrow in the other (perpendicular) direction: (diagram).

Technical Specifications

Operating Frequency EU Version	865-868 MHz
Operating Frequency US Version	902-928 MHz
Detection height	2 – 3,5m (recommended) Maximum: 4m
Radiation pattern	Fan beam
Beam width	20°/90°
Polarisation	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
Transponder protocol standard	EPC Class1 Gen2
Conformity	EN 50364, EN 301 489, EN 302 208 (LBT), EN 300 220
Temperature range	-20°C to +55°C
Dimensions	880mm x 220mm x 56mm
Antenna weight	Master unit: 4.300 g Slave unit: 3.900 g
Material housing	Aluminium and methacrylate
Colour	Off white
Human exposure	EN 50364
EMC	EN 301 489, EN 300 220
Air interface (EU)	EN 302 208 v1.2 (DRM)

