

## AdvanSafe-200 ™

Overhead RFID loss prevention system with beam steering



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Video

#### **Benefits:**

- Improved store aesthetics, by having a store entrance free from obstacles
- Shrinkage reduction
- Minimization of false alarms with its beam steering technology
- Combination of loss-prevention and product identification in one system
- Provides data to detect which products suffer more theft attempts
- Very quick detection
- Continuous detection field
- One master unit can be connected to a slave unit, which reduces costs

### **Applications:**

- Loss prevention at retail stores
- Loss prevention at warehouses

### **Product overview**

AdvanSafe is an **overhead loss prevention system** based on RFID UHF that detects the tagged items that pass through an entrance, verifies if those items have been purchased, and triggers an acoustic and/or visual alarm if any item has not been purchased.

AdvanSafe uses **multiple antenna beams** and **electronic beam steering** to detect which tags are static and which are moving, avoiding false alarms.

AdvanSafe 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 purchased
- Checks bulk theft: trigger an alarm if a certain number of tags are read in a certain time period (e.g. a few seconds).

#### AdvanSafe uses primary units and secondary units:

- The primary unit has an integrated reader, antenna, controller, acoustic alarm and visual alarm.
- The secondary unit comprises antenna and visual alarm.

One secondary unit can be connected up to one primary unit. This reduces costs for stores with wide entrances.

AdvanSafe works with any hard and soft Gen2 RFID UHF tags. The tag chip and inlay chosen should provide a reading distance longer than the height at which AdvanSafe-200 will be installed in all tag orientations.

AdvanSafe-200 includes advanced processing techniques for minimizing false alarms.

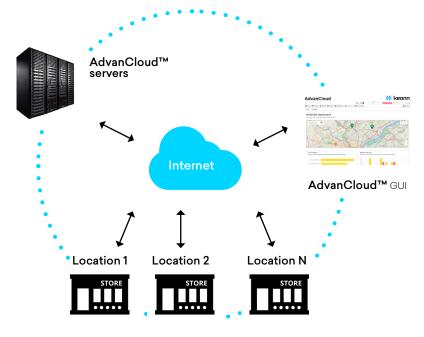
AdvanSafe can be ordered in 2 models:

- Suspended wires mount
- Ceiling mount



### Connection to AdvanCloud

AdvanSafe can be optionally connected to AdvanCloud cloud-based software platform.



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

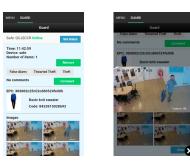
- Thwart theft attempts
- Register the event: false alarm, thwarted theft, theft



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
- •

Optionally, AdvanSafe can be connected to a camera and send images of the person passing by when the alarm is triggered, to any smartphone.







### Anti-theft dashboard

If AdvanSafe is connected to AdvanCloud, the status of AdvanSafe as well as the alarms triggered can be monitored through the AdvanCloud loss-prevention dashboard.



The alarms historical by shops are shown on the dashboard with details of machine status.

### **Device remote management**

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The dashboard will show your active systems on the map, providing alarm information.

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#### List of devices (online/offline)

Check if devices connected to AdvanCloud are online (green) or offline (red).

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#### Remote Acces to AdvanNet (Keonn RFID readers)

Acces remotely to AdvanNet from AdvanCloud for managing Keonn RFID readers.

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#### Check device health status

Monitor the active device's health with detailed diagnostics of errors.





FCC (NA, SA) (902 - 928) MHz

### **Technical Specifications**



Operating Frequency	ETSI (EU, IN) (865.6 - 867.6) MHz MIC (KR) (910 - 914) MHz SRRC-MII (PR China) (920.125 - 924.875) MHz (1) Australia (AU) (920.750 - 925.250) MHz Israel (IS) (915.0 - 917.0) MHz (2) Japan (JP) (916.8 - 920.8) MHz (2) Japan (JP) (916.8 - 920.8) MHz (3) Brazil (902 - 907.5) MHz (915 - 928) MHz by using channel selection Chile (916 - 928) MHz by using channel selection Peru (916 - 928) MHz by using channel selection Taiwan (922 - 928) MHz by using channel selection Open Region (4) (865 - 869) MHz and (902 - 928) MHz (by using channel selection) (5)						
Detection Height	2 - 3 m (recommended) Maximum: 3.5 m (Use maximum height with caution. Read distance depends highly on tag model and products being used)						
Radiation pattern	Multiple beam						
Beam width	90° / 40° (surrounding widths of all beams)						
Polarization	Circular						
Alarm Light	Light Emitting Diode (LED)						
Alarm Audio	Signal Buzzer						
Relay output	Dry contact output 24 VDC / 0.5 A / Resistive load						
Alarm function Preset	System gives audio and light alarm by detection of any of the EAS supported modes						
Power supply	Power over Ethernet						
Energy Consumption	<14 W max, <3 W idle						
Reader Power	Maximum 31,5 dBm (may be limited to conform to country or area regulations) Recommended max. 30 dBm						
Radiated power	2 W ERP, 3.2 W EIRP						
Interface	Ethernet and USB						
Transponder Protocol Standard	EPC Class1 Gen2						
Operating System	Linux - Fully open						
Temperature range	-20°C to +55°C						
Dimensions	Suspension mount 460 mm x 460 mm x 80 mm (18.1 in x 18.1 in x 3.1 in) Ceiling mount 460 mm x 460 mm x 121.5 mm (18.1 in x 18.1 in x 4.8 in)						
Weight	Suspension mount Primary unit: 5.655 Kg (12.5 lb) - Secondary unit: 5.060 Kg (11.2 lb) Ceiling mount Primary unit: 6.375 Kg (14.1 lb) - Secondary unit: 5.780 Kg (12.8 lb)						
Material Housing	Aluminum and methacrylate						
Color	Off white						
Human exposure	EN 50364						
EMC	EN 301 489, EN 300 220						
Air Interface (EU)	EN 302 208 v1.2						

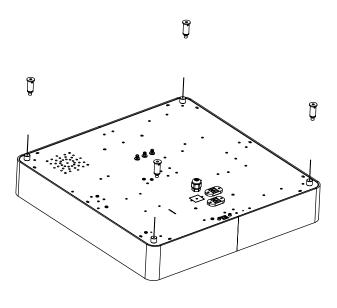
(1) RF conducted power is limited to 30 dBm.

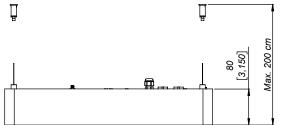
(2) Open channel specified applies to ETSI/FCC versions.

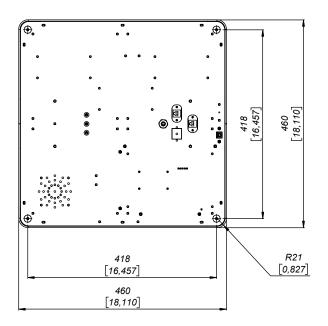
(3) Band is defined as a carrier sub-set from FCC. There is no specific Surface Acoustic Wave (SAW) filter for the band. Given the maximum conducted power there shouldn't be problems with local regulation.

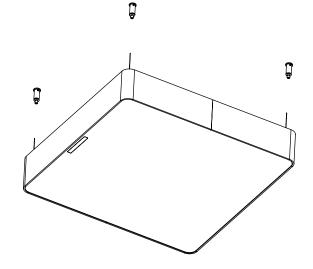


# Mechanical specifications of the model with suspended wires









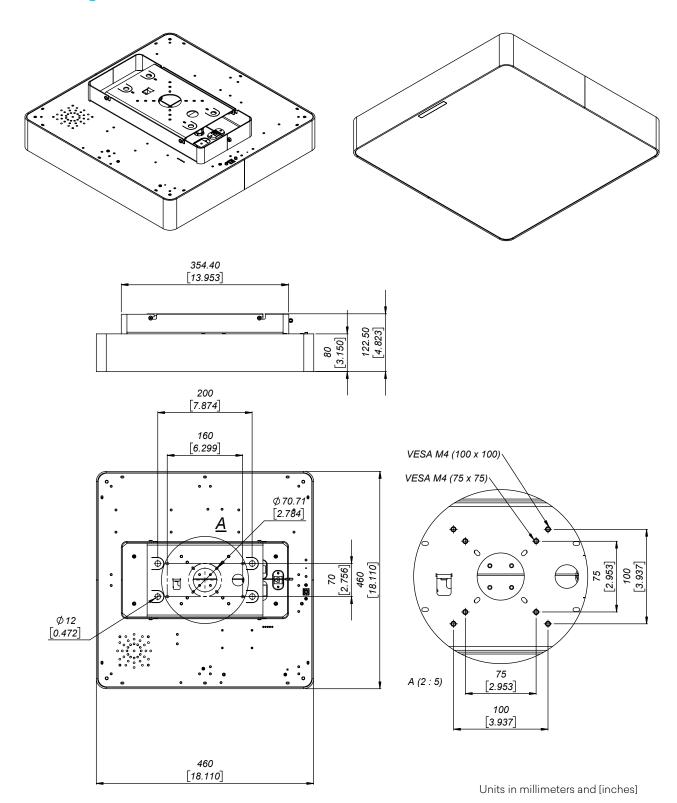
Units in millimeters and [inches]



### AdvanSafe-200™

Overhead RFID loss prevention system

# Mechanical specifications of the model ceiling mount





### **Product codes for ordering**

ADSF	-	o	t	m	FF	-	BS	-	mmm	
										o = overhead
		ο								overhead
										t = type
			m							primary
			s							secondary
										m = mount
				с						Ceiling mount (attached to the ceiling or suspended with a pole, pole not included)
				s						Suspended with metallic wires (included)
										FF = frequency band
					EU					ETSI
					US					FCC
					СН					China
										BS = beam shape
							22			Pencil beam shape (maximum gain)
										mmm = model
									200	model number

Examples:

#### ADSF-omcEU-22-200:

- AdvanSafe
- Overhead
- Primary unit
- · Ceiling mount (attached to the ceiling or suspended with a pole)
- ETSI frequency band
- Pencil beam shape
- Model 200

#### ADSF-ossUS-22-200:

- AdvanSafe
- Overhead
- Secondary unit
- Suspension mount
- FCC frequency band
- Pencil beam shape
- Model 200

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