keonn Retail RFID Systems

AdvanGate-300 ™

RFID pedestal for loss prevention



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Video

Benefits:

- Shrinkage reduction
- Combination of loss-prevention and product identification in one system
- The pedestals can be separated up to 3.5 meters
- Provides data to detect which products suffer more theft attempts
- Very quick detection
- Continuous detection field
- Plug and play installation
- Less intrusive than other pedestals

Applications:

- Loss prevention at retail stores
- Loss prevention at warehouses

Product overview

AdvanGate-300 is a pedestal 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.

It combines **RFID detection** (beam steering) with a **millimeter wave sensor** (AdvanView). This combination delivers enhanced performance, smarter detection, and more reliable protection.

AdvanGate-300 uses multiple antenna beams and electronic beam steering to detect which tags are static and which are moving, avoiding false alarms.

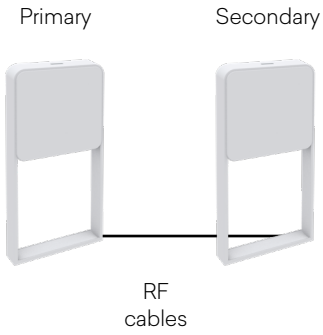
The small form factor of the AdvanGate-300 is less intrusive than other anti-theft pedestals in the market.

AdvanGate-300 uses **three 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

AdvanGate-300 comprises a primary unit and a secondary unit:

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



AdvanGate-300 works with any hard and soft Gen2 RFID UHF tags.

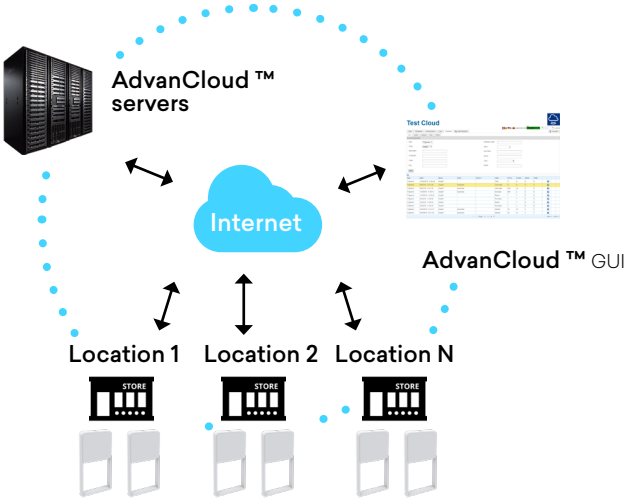
AdvanGate-300 includes **configurable parameters** for minimizing false alarms.

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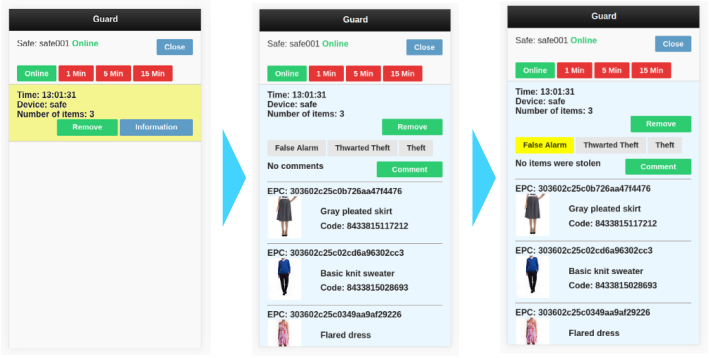
Connection to AdvanCloud

AdvanGate-300 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:

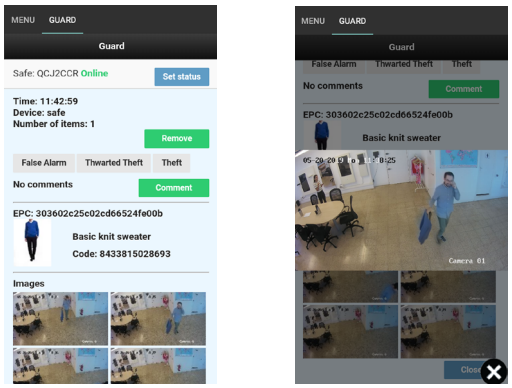
- Thwart theft attempts
- Register the event: false alarm, thwarted theft, theft



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, AdvanGate-300 can be connected to a camera and send images of the person passing by when the alarm is triggered, to any smartphone.

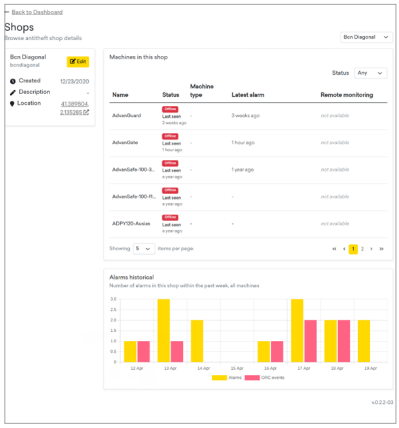


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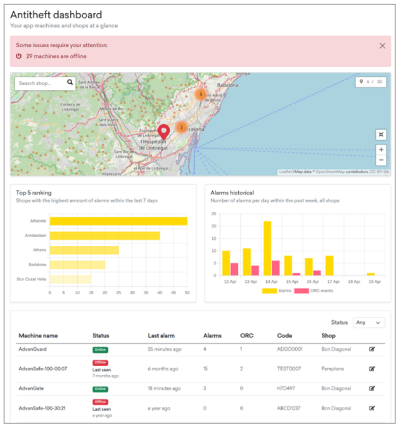


Anti-theft dashboard

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

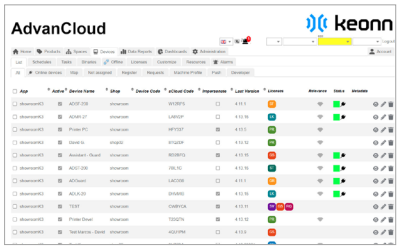


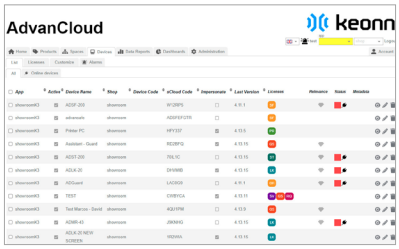
The alarms historical by shops are shown on the dashboard with details of machine status.



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

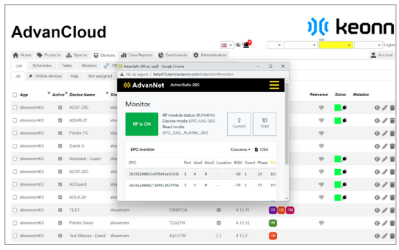
Device remote management





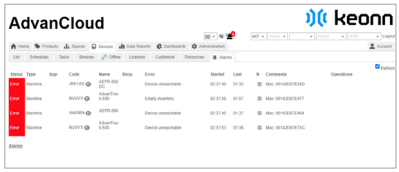
List of devices (online/offline)

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



Remote Acces to AdvanNet (Keonn RFID readers)

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



Check device health status

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

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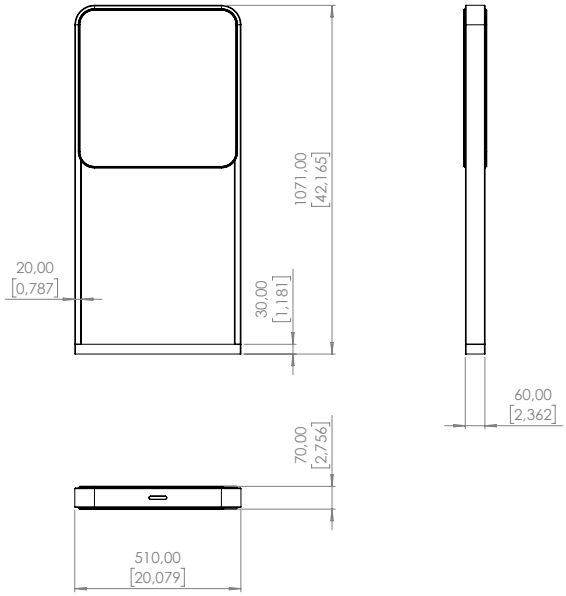


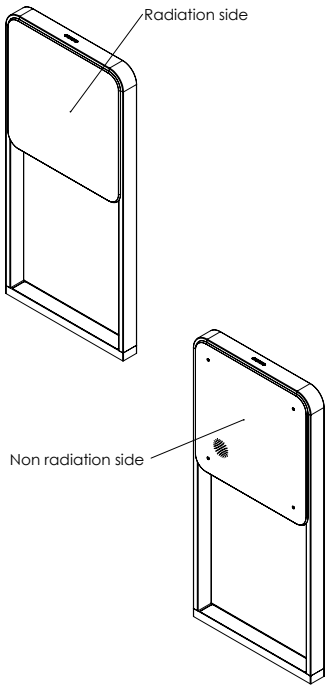
Technical specifications

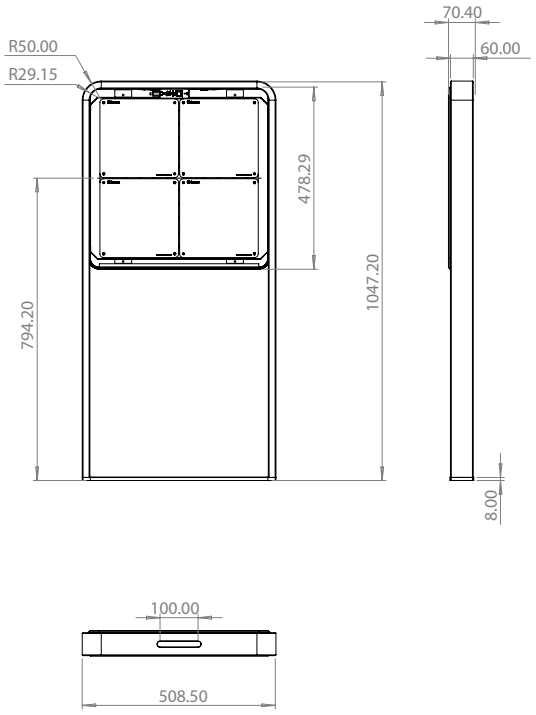
Operating Frequency	FCC (NA, SA) (902 - 928) MHz ETSI (EU, IN) (865.6 - 867.6) MHz MIC (KR) (910 - 914) MHz SRRC-MII (P.R.China) (920.125 – 924.875) MHz (1) Australia (AU) (920.750 – 925.250) MHz New Zealand (NZ) (922.250 – 927.250) MHz Israel (IS) (915.0 - 917.0) MHz (2) Japan (JP) (916.8 - 920.8) MHz (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
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
Separation between pedestals	Up to 3.5 m
Security distance	Between 2 and 2.5 m
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	4W ERP max. with 31.5 dBm configuration 4W EIRP max. with 30 dBm configuration
Interface	Ethernet and USB
Transponder Protocol Standard	EPC Class1 Gen2 / Gen2x
Operating System	Linux
Temperature range	-20°C to +55°C
Dimensions	1071 mm x 510 mm x 70 mm
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

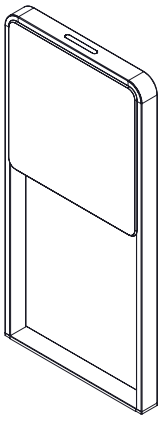
(1) RF conducted power is limited to 30 dBm.
(2) Open channel specified applies to ETSI/FCC versions.
(3) Band is defined as a carrier sub-set from FCC. There is no specific Surface Acoustic Wave (SAW) filter for the band. Given the maximum conducted power there shouldn't be problems with local regulation.

Mechanical specifications









Units in millimeters and [inches]

Product codes for ordering

ADGT	-	U	S	FF	-	CC	-	mmm	
									U = unit
		M							primary
		S							secondary
									S = side
			S						single sided
									FF = frequency band
				LB					Lower band
				UB					Upper band
									CC = colour
						WH			white
									mmm = model
								300	model number

Examples:

ADGT-MSLB-WH-300:

- AdvanGate
- Primary
- Single sided
- Lower band
- White colour
- Model 300

ADGT-SSUB-WH-300:

- AdvanGate
- Secondary
- Single sided
- Upper band
- White colour
- Model 300

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