



# Seamless RFID Solutions

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# RFID Systems

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Enhancing the customer experience and optimizing business processes at retail stores, libraries, hospitals, warehouses, distribution centers and other spaces

### AdvanStation-100™

[Data sheet](#)[Video](#)

#### RFID tag encoding station

AdvanStation-100 is an encoding station for paper and hard RFID UHF tags that easily and quickly encodes hundreds or thousands of RFID tags at retail stores, offices, distribution centers, warehouses, or other spaces.

AdvanStation works stand alone. It does not require any connection to an external computer or to Internet, nor any installation. It only needs to be powered, and it starts encoding.

AdvanStation can encode the RFID tags with password protection.

#### Benefits:

- Easy, fast and effective encoding
- Stand alone: encodes anywhere
- Plug and play
- Compatible with hard tags and paper tags
- Reduction of errors in tag encoding
- Password protection



### AdvanStation-200™

[Data sheet](#)[Video](#)

#### RFID tag encoding station with touch screen

AdvanStation-200 is an encoding station for paper and hard RFID UHF tags.

AdvanStation-200 can also kill tags that have been encoded by error and need to be discarded, to prevent them from being read by the inventory management systems.

The screen shows information about the product that has been encoded.

AdvanStation-200 can encode RFID tags with password protection.

#### Benefits:

- Easy, fast and effective encoding
- Easy to use, through a touch screen
- Very easy to install
- Can kill tags
- Compatible with hard tags and paper tags
- Actionable data



### AdvanPrint™

[Data sheet](#)

#### Automatic encoding and printing solution for soft tags with an RFID printer and direct connection to the cloud

AdvanPrint is a printing and encoding solution for soft RFID UHF tags, that can be used at retail stores, offices, distribution centers, warehouses, and other spaces.

AdvanPrint works together with the AdvanScan handheld reader. By scanning items with the handheld reader, AdvanPrint prints and encodes the corresponding RFID tags.

AdvanPrint can also be managed from any computer.

AdvanPrint does not require any connection to an external computer, nor any installation. It only needs to be powered and connected to Ethernet or WiFi.

The printer configuration can be changed at any time from the cloud (AdvanCloud).

#### Benefits:

- Fast and effective printing and encoding
- Very easy to use: requires no installation, and needs only 3 clicks to scan and print
- Plug & play
- No need of an external computer



# AdvanScan™

[Data sheet](#)[Video](#)

## Handheld RFID inventory system

AdvanScan is an Android handheld RFID reader system, that obtains the inventory of products in a space with a high read-rate (typically above 99%), and uploads the inventory data to the cloud (AdvanCloud), to a specific server, or locally.

AdvanScan also manages receptions, movements, picking, transfers and other processes. AdvanScan also encodes RFID tags and prints RFID soft tags by using it together with AdvanPrint.

AdvanScan works with WiFi and avoids the need to use any local computer. It's plug & play.

### Benefits:

- Increase of product availability
- Reduction of out-of-stocks
- Reduction of shrinkage
- Very easy to use: requires no installation, and needs only 3 clicks to make an inventory and upload it to the cloud
- Plug & play
- No need of an external computer

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# AdvanTrack-200™

[Data sheet](#)

## Overhead real-time inventory system with beam steering

AdvanTrack is a RFID-based system that provides inventory in real time and the approximate location of each tagged item across a given space.

AdvanTrack comprises a set of overhead antennas, with primary and secondary units.

Each antenna covers an area of approximately 3 metres diameter, and detects the tags located under its area of interrogation.

### Benefits:

- Persistent inventory
- Reduction of stock-outs
- Fast location of products
- Detection of misplaced items
- Shrinkage reduction

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# AdvanTrack-500™

[Data sheet](#)

## Overhead real-time inventory system for wide areas

AdvanTrack-500 is a RFID-based system that provides inventory in real time of all tagged items located in a given space.


AdvanTrack-500 configuration is based on cells, where each cell comprises five antennas connected to a reader.

Each AdvanTrack-500 cell covers an area of between 36 m<sup>2</sup> and 81 m<sup>2</sup>, depending on the tag density and sensitivity.

### Benefits:

- Persistent, accurate, and automated inventory
- Reduction of stock-outs
- Shrinkage reduction
- Higher control of assets



 U.S. patent 9939816

## Robin™

[Data sheet](#)

[Video](#)

### Automatic inventory robot

Robin is a mobile and autonomous RFID system that automatically obtains the inventory of a given space, for instance, a retail store or a low-ceiling warehouse, with very high accuracy (typically above 99%).

Robin can also obtain the location of the tagged items with an accuracy of approximately 1 metre.

Robin can move in all directions, since it can rotate without displacement, and can easily move around any given space, even with narrow aisles.

The movement of Robin is synchronized with the tag reading in order to maximize read rate.

### Benefits:

- Cost reduction in inventory taking
- Increased accuracy compared to handheld readers
- Fast and easy detection of misplaced items
- Acceleration of picking for return management
- Easily moves around any given space
- Synchronized tag reading and movement
- High read rate

## AdvanShelf™

[Data sheet](#)

## AdvanDisplay™

### Smart shelves, displays, showcases, lockers and cabinets

AdvanShelf is a smart shelf system based on RFID UHF, that provides inventory in real-time, with high read-rate.

In addition, AdvanShelf provides real-time location of tagged items, with a typical resolution of  $\pm 40\text{cm}$  ( $\pm 15$  inches).

AdvanShelf detects out of stocks and misplaced items. It can also be configured to detect customer interaction.

### Benefits:

- Reduction of stock-outs and misplaced items
- Fast location of products
- Interaction with customers
- Fast picking of products for returns
- Calculation of sales per shelf position
- More efficient vendor-managed inventory
- Shrinkage reduction

## AdvanPortal™

[Data sheet](#)

### RFID portal

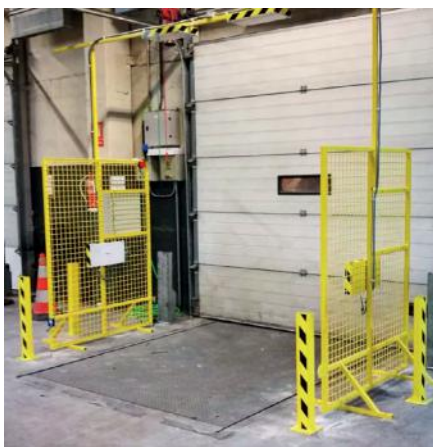
AdvanPortal is an RFID-based tracking system that detects tagged items, tagged boxes and tagged pallets, and directly uploads the resulting data to AdvanCloud or to a local server.

AdvanPortal is used for product tracking in spaces such as distribution centers, warehouses, etc. AdvanPortal has a very high read rate. It can read hundreds of tags in few seconds.

When connected to AdvanCloud, AdvanPortal does not need any external computer. The system is managed through the Android screen and the data is automatically sent to AdvanCloud.

### Benefits:

- Very high detection rate
- Very easy to use: needs only 3 clicks to make an inventory and upload it to the cloud
- No need of an external computer



# AdvanFlow™

[Data sheet](#)[Video](#)

## High performance transition portal

AdvanFlow is an RFID-based transition portal used by retailers to keep full control of the stock in real time.

AdvanFlow is placed in the space between the stock room and the store front, and detects the tagged items being moved from back to front and vice versa.

AdvanFlow has a very high read rate. It can read movements of up to 70 items with the master unit, and more than a 100 with the optional satellite antennas.

### Benefits:

- Full control of the stock in real time
- Self-correction of invalid IN/OUT movements
- Automatic direction detection
- Automatic classification between legitimate tags and stray tags

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# AdvanWash™

[Data sheet](#)

## RFID-based sanitizer

AdvanWash is an RFID sanitizer that ensures that staff washes hands.

AdvanWash detects the presence of the user's hands and automatically dispenses soap or hydrogel.

With its built in RFID reader and antenna, AdvanWash reads the RFID card of the user's badge and identifies the user who is washing hands.

AdvanWash is a modular solution that solves four main needs / use cases:

- Know who washes hands and when.
- Know who washes hands and when + Emit an acoustic reminder when staff do not wash hands.
- Know who washes hands and when + Open a single door of a restricted area after washing hands.
- Know who washes hands and when + Open one door amongst several doors after washing hands.

### Benefits:

- Ensures that staff wash hands
- Ensures that only authorized staff who have washed hands can enter a restricted area
- Improves hygiene levels
- Verifies the compliance of hygiene protocols
- Enforces hygiene protocols
- Modular structure adaptable to multiple use cases
- Easy to install and to use

# AdvanLook™

[Data sheet](#)[Video](#)

## Interactive recommendation system

AdvanLook is an interactive display and product cross-selling system. It uses RFID technology and a display to improve the shopping experience of customers at retail stores or libraries.

Customers see images of the products they approach to AdvanLook, detailed information about these products and receive product recommendations.

AdvanLook is available in 3 sizes (10", 21", 43").

With AdvanCloud, the content and user interface of AdvanLook can be remotely updated.

### Benefits:

- Increases sales at retail stores
- Improves the customer shopping experience
- Provides recommendations
- Generates information about user interests
- The frame colour and material can be chosen
- The content and user interface can be updated remotely
- No need of an external computer

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# AdvanLift™

[Data sheet](#)

## Lift and learn interactive system

AdvanLift is a product recommendation and cross-selling system with tray ideal for cosmetics, footwear, wine, etc.

AdvanLift uses RFID technology and, optionally, an interactive screen to improve the shopping experience of customers at retail stores.

By simply picking up a product from the tray of AdvanLift, customers see benefits, experts' advice, videos of how to use the product, and recommended products.

### Benefits:

- Increases sales at retail stores
- Improves the customer shopping experience
- Provides recommendations
- Generates information about user interests
- The content and user interface can be updated remotely



# AdvanServe™

[Data sheet](#)[Video](#)

## Portable product recommendation system

AdvanServe is a portable product recommendation and cross-selling system for retail stores, based on a smart phone or tablet.

The shop assistant uses AdvanServe to show customers images of the products, detailed information about these products and product recommendations.

The content of AdvanServe can be remotely updated through AdvanCloud.

AdvanServe is also available with an RFID-enabled smartphone.



### Benefits:

- Increases sales at retail stores
- Improves the customer shopping experience
- Provides recommendations
- Generates information about user interests
- The content and user interface can be updated remotely

# AdvanMirror™

[Data sheet](#)[Video](#)

## Interactive recommender with screen-mirror integration

AdvanMirror is a product recommendation and cross-selling system for retail stores.

AdvanMirror uses RFID technology and a touch screen integrated with a mirror to improve the shopping experience of customers at retail stores or libraries.

Beside their reflection, customers see images of the products they have picked up, detailed information about these products and receive product recommendations.

With AdvanCloud, the content and user interface of AdvanMirror can be remotely updated.



### Benefits:

- Increases sales at retail stores
- Improves the customer shopping experience
- Provides recommendations
- Generates information about user interests
- The content and user interface can be updated remotely

# AdvanFitting-300™

[Data sheet](#)  
[Video](#)



## Wall-mount interactive system for fitting rooms

AdvanFitting-300 is a cost-effective RFID-based interactive system for fitting rooms at retail stores.

AdvanFitting uses RFID technology and a touch screen to improve the shopping experience of customers at retail stores.

When customers enter the fitting room, images of the products they carry appear on the touch screen, with recommendations. Customers can request other sizes or colours without leaving the fitting room.

AdvanFitting is installed on the wall of the fitting room. All the electronics are recessed into the wall or are hidden behind the wall.

Each unit is fully independent. It is not necessary to interconnect units in adjacent fitting rooms.

With AdvanCloud, the content and user interface of AdvanFitting can be remotely updated.

It is recommended to paint the walls of the fitting rooms with AdvanPaint in order to minimize cross-reads.

### Benefits:

- [Increases sales at retail stores](#)
- [Improves the customer shopping experience](#)
- [Cost-efficient](#)
- [Generates information about user interests](#)

# AdvanFitting-200™

[Data sheet](#)  
[Video](#)



## Overhead interactive system for fitting rooms

AdvanFitting-200 is an RFID-based interactive system for fitting rooms at retail stores.

AdvanFitting-200 uses RFID technology and a touch screen to improve the shopping experience at retail stores.

When customers enter the fitting room, images of the products they carry appear on the touch screen, with recommendations. Customers can request other sizes or colours without leaving the fitting room.

AdvanFitting-200 comprises primary units and secondary units. Up to 3 secondary units can be connected to each primary unit. Therefore, four fitting rooms can be monitored by using one primary and three secondaries.

With AdvanCloud, the content and user interface of AdvanFitting-200 can be remotely updated.

AdvanFitting-200 uses special antennas and software for minimizing cross-reads.

It is recommended to paint the walls of the fitting rooms with AdvanPaint in order to further reduce cross-reads.

### Benefits:

- [Increases sales at retail stores](#)
- [Improves the customer shopping experience](#)
- [Fun to use](#)
- [Generates information about user interests](#)
- [The frame colour and material can be chosen](#)
- [The content and user interface can be remotely updated](#)
- [Easy connection and installation](#)

# AdvanPay-120™

[Data sheet](#)  
[Video](#)



## High power RFID desktop reader with keyboard wedge

AdvanPay-120 is a high confinement RFID UHF desktop reader/writer that accelerates payment and check-in/check-out processes at stores, libraries and other spaces:

AdvanPay integrates:

- An antenna with a highly confined reading area.
- Keyboard emulation by hardware. It's not needed to install any software at the POS.
- Functionalities specifically designed to address the needs of retailers, libraries or other spaces.

AdvanPay-120 comes in two models:

1. Flush mount (installed recessed in surface).
2. Under mount (installed underneath the surface).

### Benefits:

- **Highly confined reading area**
- **Automatic integration with most software applications, through hardware keyboard emulation**
- **For retailers:**
  - Queues reduction, thanks to a much faster payment process
  - Improved customer shopping experience, derived from a shorter payment time
  - Reduction in employee costs
  - Simultaneous item detection and EAS flag activation/deactivation

# AdvanPay-170™

[Data sheet](#)  
[Video](#)



## High power RFID reader with hard tag detacher and keyboard wedge

AdvanPay-170 is a high confinement RFID UHF desktop reader/writer with hard tag detacher that accelerates payment and check-in/check-out processes at stores, libraries and other spaces.

AdvanPay integrates:

- An antenna with a highly confined reading area.
- A hard tag detacher.
- Keyboard emulation by hardware. It's not needed to install any software at the POS.
- Functionalities specifically designed to address the needs of retailers, libraries or other spaces.

AdvanPay-170 merges two processes: hard tag detachment and product identification.

### Benefits:

- **Highly confined reading area**
- **Combines two processes (hard tag detachment and product identification)**
- **Automatic integration with most software application, through hardware keyboard emulation**
- **For retailers:**
  - Queues reduction, thanks to a much faster payment process
  - Improved customer shopping experience, derived from a shorter payment time
  - Reduction in employee costs
  - Simultaneous item detection and EAS flag activation/deactivation

## External controller

### External controller for AdvanPay-120 undertable mount

AdvanPay can be connected to an external controller for changing the operation mode, and for turning AdvanPay on and off.



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## AdvanSpeaker

### External speaker for AdvanPay

AdvanPay can be connected to an external speaker to increase the volume of the beep.



# AdvanGo™

[Data sheet](#)[Video](#)

## RFID-based modular solution for self-checkout

AdvanGo is an RFID-based modular solution that identifies faster and with higher reliability all the products a customer wants to buy.

AdvanGo has a special on-board software for confining the reading area, which reads the EPC codes of the products being purchased while simultaneously deactivating the EAS flag of such products, for loss prevention.

AdvanGo is a modular solution. It can be used for different types of self checkout as desktops, baskets, wall mounts...

AdvanGo comprises:

- High power RFID reader
- Antennas
- RF cables
- Power supply
- Specific on-board software
- AdvanCloud platform (optional)

## Benefits:

- **Controlled reading area**
- **Easy integration with most software applications**
- **Easy installation and monitoring**
  - For retailers:
    - **Queues reduction, thanks to a much faster payment process**
    - **Improved customer shopping experience, derived from a shorter payment time**
    - **Reduction in employee costs**
    - **Simultaneous item detection and EAS flag activation/deactivation**





# AdvanSafe-200™

[Data sheet](#)[Video](#)

## Overhead loss prevention system with beam steering

AdvanSafe-200 is a loss prevention UHF antenna with an embedded reader and alarm combining EAS and RFID functions in one system.

AdvanSafe 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.

Thanks to its beam steering, AdvanSafe detects which tags are static tags and which are moving tags, in order to avoid false alarms.

### Benefits:

- Improved store aesthetics, by having a store entrance free from obstacles
- Decrease in false alarms thanks to beam steering
- 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
- Plug and play installation



# AdvanSafe-100™

[Data sheet](#)[Video](#)

## Overhead loss prevention system

AdvanSafe is a loss prevention UHF antenna with an embedded reader and alarm combining EAS and RFID functions in one system.

The antennas have circular polarization and a radiation pattern characterized by a narrow beamwidth in the longitudinal direction, and a wide beamwidth in the transversal direction.

This radiation pattern allows to maximize the reading of products passing below the antennas, while minimizing the reading of other products.

### 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



### AdvanMat-300™

[Data sheet](#)[Video](#)

#### Loss prevention modular RFID floor mat

AdvanMat-300 is a high performance modular RFID floor mat that integrates multiple UHF RFID antennas inside a floor mat, for tracking people or objects. AdvanMat is able to withstand 500 kg while maintaining the functionalities of the antennas.

The antennas have circular polarization and a radiation pattern characterized by a narrow beamwidth in the longitudinal direction, and a wide beamwidth in the transversal direction.

This radiation pattern makes this system ideal for tracking people and objects and for RFID applications such as loss prevention systems, races, portals, corridors, doors, etc.

#### Benefits:

- High flexibility
- Non visible antennas
- Easy to install
- Easy connection to any reader



### AdvanMat-200™

[Data sheet](#)[Video](#)

#### Floor mat with embedded antennas

AdvanMat-200 integrates four high performance RFID UHF antennas inside a floor mat. The mat is able to support the weight of human bodies while maintaining the functionalities of the antennas.

The antennas have circular polarization and a radiation pattern characterized by a narrow beamwidth in the longitudinal direction, and a wide beamwidth in the transversal direction.

This radiation pattern makes this system ideal for tracking people and objects and for RFID applications such as loss prevention systems, races, portals, corridors, doors, etc.

#### Benefits:

- Non visible antennas
- Easy to install
- Easy connection to any reader



# AdvanGuard™

[Data sheet](#)[Video](#)

## RFID alarm unit for AdvanMat

AdvanGuard is an RFID alarm unit for loss prevention at retail stores, libraries and other spaces.

It comprises an embedded reader and alarm combining EAS and RFID functions in one system.

It connects easily to various RFID antennas. It is ideal for combining it with AdvanMat RFID floor mat, for creating a complete loss prevention system.

### Benefits:

- Shrinkage reduction
- Combination of loss-prevention and product identification in one system
- Provides data to detect which product suffer more theft attempts
- Connects easily to various RFID antennas
- Very quick detection
- Continuous detection field
- Plug and play installation



# AdvanGate™

[Data sheet](#)[Video](#)

## RFID pedestal for loss prevention

AdvanGate is a loss prevention pedestal system that includes RFID antennas, an embedded reader and alarm. The antennas have circular polarization and a radiation pattern characterized by a narrow beamwidth in the longitudinal direction, and a wide beamwidth in the vertical direction.

This radiation pattern allows to maximize the reading of products passing through the pedestals, while minimizing the reading of other products.

### Benefits:

- Shrinkage reduction
- Combination of loss-prevention and product identification in one system
- The pedestals can be separated up to 4 metres
- Provides data to detect which product suffer more theft attempts
- Very quick detection
- Continuous detection field
- Plug and play installation





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# Software

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Keonn software drivers and cloud-based software platform

# AdvanNet™

Data sheet



## Common driver platform

AdvanNet is a common driver platform for Keonn products, a software layer that manages all Keonn products under a common interface.

AdvanNet is a simple yet powerful edgware software that can easily connect Keonn products to 3rd party systems; either RFID middleware or end-user customer applications.

AdvanNet is also a powerful GUI (web based) test environment for any RFID deployment that uses Keonn products.

### Benefits:

- **Simplicity**
- **Reduction of deployment time**
- **Convenient for making initial tests in a RFID project**
- **Guarantee of best performance for Keonn products**

# AdvanCloud™

Data sheet



## Cloud-based software platform for remotely managing Keonn RFID systems

All the detected RFID tags are recorded and stored in AdvanCloud in real time, and can be accessed from anywhere and at any time.

All the interaction events between the shopper and AdvanLook/AdvanFitting are also recorded and stored in AdvanCloud.

All the data stored in AdvanCloud can be easily exported or queried, in order to generate reports, apply business intelligence techniques, etc.

AdvanCloud also provides the interactive user interface for AdvanLook and AdvanFitting.

This user interface can be easily customized for each retailer by using HTML5 and Javascript.

Content import and data export can be executed remotely by means of a web services API that makes the integration with other systems very easy.

AdvanCloud also controls and manages the tablets/PDAs that store staff use to receive requests from shoppers and to answer these requests.

### Benefits:

- **Access to real time information of the detected RFID tags and events in any location, from anywhere and at any time**
- **Easy and efficient remote management of Keonn products**
- **Remote management of content and user interface of Keonn interactive retail systems**
- **High scalability and flexibility**
- **Integrated pricing, including software application, data hosting and technical support**
- **Reduction of deployment time**
- **Reduction of spending on technology infrastructure**
- **Reduction of operational and maintenance costs**



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# RFID Components

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All the necessary hardware elements for setting up an RFID solution quickly and easily

# AdvanReader-10™

Data sheet



## 1 or 2-port USB RFID reader

AdvanReader-10 is a small form factor, lightweight, high performance USB reader with an integrated antenna (optional).

AdvanReader-10 comes with four models:

- 1 port, with embedded antenna
- 1 port, with SMA connector for an external antenna
- 2 ports, without enclosure
- 2 ports, with enclosure

### Benefits:

- High performance
- Small form factor
- With optional embedded antenna

# AdvanReader-70™

Data sheet



## 1 or 2-port RFID UHF reader with on-board computer and open Linux OS

AdvanReader-70 is a flexible UHF reader with an on-board microcomputer and a fully open Linux operating system.

AdvanReader-70 comes with two models:

- 1-port, 27 dBm maximum output power.
- 2-port, 30 dBm maximum output power.

Thanks to its on-board microcomputer, AdvanReader-70 can work stand-alone, without needing to be connected to an external computer, thereby reducing equipment costs, installation costs, and maintenance costs.

### Benefits:

- High flexibility (1 or 2 ports)
- On board computer with fully open Linux OS
- Small form factor
- Acts as HID USB device



# AdvanReader-160™

Data sheet

## RFID UHF 4-port reader with an on-board Linux computer

AdvanReader-160 is a high power (31,5 dBm), high performance UHF reader with an on-board microcomputer (Linux machine).

You can program your own software routines on AdvanReader-160, saving the need and cost of an external computer.

AdvanReader-160 is also prepared to work with batteries and control the battery level.

It has a sleep mode for minimizing consumption. It is therefore ideal for mobile systems.

AdvanReader-160 also includes:

- Communication interfaces: Ethernet, WiFi, USB HID, 3G.
- 2 digital inputs and 2 analog inputs.
- 5 digital outputs.
- Output for connecting up to four multiplexers of 4 ports, 8 ports or 16 ports.
- Output for 2 W loudspeaker.
- On-board buzzer.

## Benefits:

- Saves the costs of an external computer
- Optimized for working with batteries
- High-performance: high output power and high sensitivity
- Reduces time and cost of developing RFID systems.
- Direct connection to AdvanMux multiplexers



## Multiplexers



### AdvanMux-4™

Data sheet

#### RFID multiplexer, four ports

AdvanMux-4 is a high performance 4 port multiplexer that expands by a factor 4 the number of antennas that can be connected to each port of an RFID reader.

AdvanMux-4 is easy to connect to practically every RFID reader in the market, including Keonn, Impinj, Zebra, Alien, ThingMagic and others.



### AdvanMux-8™

Data sheet

#### RFID multiplexer, eight ports

AdvanMux-8 is a high performance 8 port multiplexer that expands by a factor 8 the number of antennas that can be connected to each port of an RFID reader.

AdvanMux-8 is easy to connect to practically every RFID reader in the market, including Keonn, Impinj, Zebra, Alien, ThingMagic and others.



### AdvanMux-16™

Data sheet

#### RFID multiplexer, sixteen ports

AdvanMux-16 is a high performance 16 port multiplexer that expands by a factor 16 the number of antennas that can be connected to each port of an RFID reader.

AdvanMux-16 is easy to connect to practically every RFID reader in the market, including Keonn, Impinj, Zebra, Alien, ThingMagic and others.

#### Benefits of Keonn multiplexers:

- Reduce the cost of RFID applications with many antennas
- Very fast and easy connection
- Compatible with most reader models
- Easy selection of ports by sending proper commands to the reader
- Easy control of several multiplexers by interconnecting them with standard Ethernet cables
- Low insertion loss

## Power splitters



### AdvanSplitter-2™

[Data sheet](#)

#### RFID power splitter, 2 ports

AdvanSplitter-2 is a high performance two port power splitter designed for RFID UHF applications.

AdvanSplitter can be used to combine different Keonn antennas in new ways, creating new antennas with longer read range and narrower beamwidth, adapted to the needs of any RFID application.

For instance:

- Two Advantenna-p14 (antenna array of 1 x 4 elements) can be connected to AdvanSplitter to create an antenna array of 1 x 8 elements.
- Two Advantenna-p33 (antenna array of 3 x 3 elements) can be connected to AdvanSplitter to create an antenna array of 3 x 6 elements.



### AdvanSplitter-4™

[Data sheet](#)

#### RFID power splitter, 4 ports

AdvanSplitter-4 is a high performance four port power splitter designed for RFID UHF applications.

AdvanSplitter can be used to feed up to 4 antennas simultaneously, for instance, in order to scan an area much faster than using multiplexers.



### AdvanSplitter-8™

[Data sheet](#)

#### RFID power splitter, 8 ports

AdvanSplitter-8 is a high performance eight port power splitter designed for RFID UHF applications.

AdvanSplitter can be used to feed up to 8 antennas simultaneously, for instance, in order to scan an area much faster than using multiplexers.

#### Benefits of Keonn splitters:

- Can create new antenna configurations and find the optimal antenna solution for any RFID project
- Very fast and easy connection
- Very low insertion loss
- Capable of supporting unbalanced loads
- Faster scan of an area



# AdvanGPIO™

Data sheet

## Connection board between Keonn products and RFID readers

AdvanGPIO is a connection board that makes it very easy to control some Keonn products through the GPIO (General Purpose Input Output) of many RFID UHF reader models.

AdvanGPIO allows to connect AdvanMux-4 (four port RFID multiplexer), AdvanMux-8 (eight port RFID multiplexer), AdvanMux-16 (sixteen port RFID multiplexer) to RFID readers of vendors like Zebra, Alien, Invengo and others.

### Benefits:

- Very fast and easy connection
- Makes it very easy to control Keonn multiplexers and phase shifters by RFID readers
- Compatible with most reader models
- Wide input voltage range



# AdvanGPIO-200™

Data sheet

## Connection board for connecting external devices to Keonn readers

AdvanGPIO-200 is a connection board that facilitates connecting external devices to Keonn RFID readers.

Such devices can be light/sounder devices such as tower LEDs and buzzers, and many industrial systems.

The connection is done through the GPIO (General Purpose Input Output) of AdvanReader-70 and AdvanReader-160.

AdvanGPIO-200 allows to connect any device that works from 12 V to 24 V and that has a maximum consumption of 750 mA.

### Benefits:

- Fast and easy connection
- Allows to control light/sounder devices with Keonn's readers
- Allows to connect industrial devices to Keonn's readers
- Compatible with most stack lights
- Wide input voltage range





# Advantenna-p11™

[Data sheet](#)

## Non-directive RFID UHF antenna, ultrathin form factor

Advantenna-p11 is a compact RFID UHF Antenna, with a very thin form factor, circular polarization and a gain of 3,2 dBi.

Its radiation pattern is characterized by a wide beam in all directions on one hemisphere.

**Applications:** smart shelves, smart displays, smart panels and smart tables or other surfaces.



# Advantenna-p12™

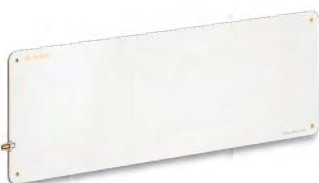
[Data sheet](#)

## RFID UHF antenna, ultrathin form factor

Advantenna-p12 is a compact RFID UHF antenna, with a very thin form factor, circular polarization and a gain of 5,3 dBi.

Its radiation pattern is characterized by a 89° beamwidth in the broadside direction and a 60° beamwidth in the endfire direction.

**Applications:** loss prevention gates and pedestals, hybrid EAS systems (acousto-magnetic + RFID)



# Advantenna-p13™

[Data sheet](#)

## RFID UHF antenna, fan beam shape, ultrathin form factor

Advantenna-p13 is a compact RFID UHF antenna with circular polarization and a gain of 6,8 dBi.

Its radiation pattern is characterized by a 90° beamwidth in the broadside direction and a 40° beamwidth in the endfire direction (fan beam shape).

**Applications:** loss prevention systems, portals, corridors, doors

### Advantenna-p14™

[Data sheet](#)

#### RFID UHF antenna, fan beam shape, ultrathin form factor

Advantenna-p14 is a compact RFID UHF antenna with circular polarization and a gain of 8,0 dBi.

Its radiation pattern is characterized by a 90° beamwidth in the broadside direction and a 30° beamwidth in the endfire direction (fan beam shape).

**Applications:** loss prevention systems, portals, corridors, doors



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### Advantenna-p16™

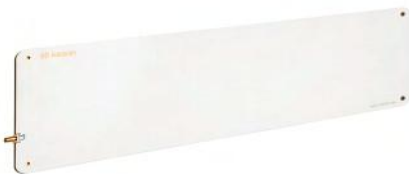
[Data sheet](#)

#### RFID UHF antenna, fan beam shape, ultrathin form factor

Advantenna-p16 is a compact RFID UHF antenna with circular polarization and a gain of 9,3 dBi.

Its radiation pattern is characterized by a 90° beamwidth in the broadside direction and a 20° beamwidth in the endfire direction (fan beam shape).

**Applications:** marathons and race timing, overhead loss prevention systems, portals, corridors, vehicle tracking



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### Advantenna-p22™

[Data sheet](#)

#### RFID UHF antenna, ultrathin form factor

Advantenna-p22 is a compact RFID UHF antenna, with a very thin form factor, circular polarization and a gain of 6.6 dBi.

Its radiation pattern is characterized by a 60° / 60° beamwidth.

**Applications:** point of sale systems, desktop readers with integrated antenna, overhead real-time inventory systems





## Advantenna-p33™

Data sheet

### RFID UHF antenna, pencil beam shape, ultrathin form factor

Advantenna-p33 is a compact RFID UHF Antenna with circular polarization and a gain of 9,6 dBi.

Its radiation pattern is characterized by a pencil beam shape (40° / 40°).

**Applications:** overhead real-time inventory systems, fitting rooms, magic mirrors, doors.



## Advantenna-SP11™

Data sheet

### High gain compact RFID UHF antenna

Advantenna-SP11 is a compact RFID UHF Antenna with a very high gain (8.3 dBi), circular polarization and a radiation pattern characterized by a wide beam in all directions in one hemisphere.

The combination of a high gain, thin form factor and compact size (compared to other high gain antennas available on the market) make this antenna ideal for many RFID applications.

**Applications:** smart shelves, smart panels, smart tables, smart surfaces in general



## Advantenna-SP12™

Data sheet

### High gain RFID UHF antenna

Advantenna-SP12 is an ultra-light RFID UHF Antenna with a very high gain (9.5 dBi), circular polarization and a radiation pattern characterized by a 70° beam width in one plane and a 40° beam in the other plane.

The combination of a high gain, thin form factor and ultra-light design make this antenna ideal for many RFID applications such as RFID portals, RFID tunnels, tracking systems, etc.

**Applications:** smart shelves, smart panels, smart tables, smart surfaces in general





### Advantenna-CP11™

[Data sheet](#)

**RFID UHF near-field antenna with highly controlled reading area, even with far field RFID tags**

Advantenna-CP11 is a compact RFID UHF Antenna, with a highly controlled reading area, and with circular polarization.

By controlling the power of the RFID reader, the Advantenna-CP11 can work as a near-field antenna, or as a wider range antenna.

**Applications:** point of sales, smart panels, smart tables, smart surfaces in general



### Advantenna-L11™

[Data sheet](#)

**Near field RFID UHF antenna, ultrathin form factor**

Advantenna-L11 is a compact near-field RFID UHF Antenna, with a very thin form factor, and strong, even magnetic field distribution within its detection zone.

When used with inductive near-field tags the reading area can be confined to the vicinity of the antenna.

**Applications:** point of sales, smart panels, smart tables, smart surfaces in general

## Holders for Keonn antennas

AdvanHolder is an antenna holder designed especially for Keonn antennas

With its thin and easy to mount profile, AdvanHolder offers a new level of comfort in areas previously difficult to accommodate an antenna.



Holder for Advantenna-p11™



Holder for Advantenna-p12™



Holder for Advantenna-p13™



Holder for Advantenna-p14™



Holder for Advantenna-p16™



Holder for Advantenna-p22™



Holder for Advantenna-p33™

## Accessories

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## RF cables

Type *	Available lengths (in feet)	Available lengths (in metres)
SMA male straight - SMA male straight	1 - 2 - 3 - 5 - 7 - 9 - 12 - 17 - 25	0,3 - 0,6 - 0,9 - 1,5 - 2,1 - 2,7 - 3,6 - 5,2 - 7,5
SMA male right angle - SMA male straight	1 - 2 - 3 - 5 - 7 - 9	0,3 - 0,6 - 0,9 - 1,5 - 2,1 - 2,7
SMA male right angle - SMA male right angle	1 - 3 - 5	0,3 - 0,9 - 1,5 - 2,1 - 2,7
SMA male straight - Reverse TNC male straight	1 - 3 - 5 - 7 - 9 - 12 - 17 - 25	0,3 - 0,9 - 1,5 - 2,1 - 2,7 - 3,6 - 5,2 - 7,5
SMA male right angle - Reverse TNC male straight	1 - 3 - 5 - 7 - 9	0,3 - 0,9 - 1,5 - 2,1 - 2,7

\* Other cable configurations can be supplied upon request



## RF adapters

Type	Mount type
SMA male straight to SMA male straight	Through
SMA female straight to SMA female straight	Through
SMA male straight to Reverse TNC female straight	Through
SMA female straight to Reverse TNC female straight	Through
N type male straight to SMA female straight	Through



## RF load

This 50-Ohm SMA RF load is designed to give the highest protection for the unconnected RF ports of your RFID devices. It can withstand a maximum power of 33 dBm (2 W).



## Standard style steel SMA torque wrench

Data sheet

Designed for use on SMA connectors, it has a torque of 0.9 Newtons meter (7.97 inch pounds) and an opening of 8mm (.315”).

Since the proper tightening torque ensures optimal performance over time, this break-over style torque wrench pivots when the torque setting is achieved, preventing over-torque conditions.

Ergonomic styling makes the handling of this 15 cm (5.9 inches) long torque wrench easy.



## AdvanPaint™

Data sheet

AdvanPaint is a universal electro conductive base coating for shielding RFID UHF frequency electromagnetic fields.

Based on high quality pure acrylic binder, this paint is solvent free, frost resistant, breathable, low-odor and low-emission.



## AdvanFilm™

Data sheet

AdvanFilm is a dry paint film functionalized with a special treatment for shielding RFID UHF frequency electromagnetic fields. It is a water-based acrylic dry paint film, complexed with a nonwoven fabric.

This film is easy to install, odorless, does not need drying time, and prevents the apparition of cracks.



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