

AdvanShelf™

RFID smart shelf system



Product overview

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

In addition, AdvanShelf provides real-time location of tagged items, with a typical resolution of ± 40 cm (± 15 inches). This functionality can be used to detect misplaced items, locate any item, generate a real-time planogram, etc.

AdvanShelf can be adapted to metallic, plastic, and wood-made shelves, of any size and color. Up to 1024 antennas can be connected to a single reader, which makes AdvanShelf very competitive.

AdvanShelf includes:

- Antennas
- Multiplexers
- Readers
- RF cables
- Control cables for multiplexers
- Power over Ethernet injectors
- Software drivers, including a tag location algorithm

The RF hardware can be easily assembled to a fixture by non-skilled operators. An engineer is needed only to connect the readers to the server, check the system and connect the software drivers to the application software developed by a systems integrator.

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

Applications:

- Smart shelves
- Smart cabinets
- Smart panels
- Smart surfaces

Specifications

Operating Frequency EU Version	865-868 MHz (ETSI EN 302 208)
Operating Frequency US Version	902 - 928 MHz (FCC part 15)
Materials	Can be used on metallic and non-metallic fixtures, of any color and size Can be used on shelving structures as well as panels with hangers, brochettes, etc.
Read rate	Typically above 99,5%
Location resolution	Typically ± 40 cm (± 15 inches)
Scan time	Adjustable, depending on the number of antennas and number of readers
Number of antennas	Approximately one every 25 cm x 25 cm (10 inches x 10 inches)
Number of antennas that can be connected to a single reader	Up to 1.024
Reader transmitted power	max. 31,5 W
Communications	Ethernet, Optional: WiFi, 3G
Transponder Protocol Standard	ISO 18000-6C EPC Class1 Gen2
Customer protection	Antennas are not visible, and not accessible by end users
Drivers	Java