



keonn

RFID
Systems

AdvanFlow™

High performance transition
portal



[Video](#)

Benefits:

- Sales increase in retail stores by keeping full control of the stock in real time
- Automatic direction detection without the need of physical sensors
- Automatic classification between legitimate tags and stray tags
- Self-correction of invalid IN/OUT movements
- Automatic detection when stray tags are part of a movement

Applications:

- Tracking movement of goods inside stores: from stock room to store front, between stock rooms, between floors, ...
- Tracking goods entering and exiting the fitting room area

Product overview

Many retailers use handheld RFID readers for taking periodic stock counts and keeping a high stock accuracy. However, between stock counts, the retailer may lose visibility of the real stock in the stock room and in the sales floor.

AdvanFlow is an **RFID-based transition portal** that allows the retailer to keep **full control of the stock in real time**. In this way, the retailer replenishes or restocks items when needed, which improves the customer shopping experience and increases sales.

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.

Direction detection is done automatically without the need of any external sensors. Detected items can be uploaded directly to AdvanCloud or can be sent to 3rd party systems.

AdvanFlow is specially designed for **areas with tagged items in close proximity**, as it does not require a quiet RF environment: it works even when it is reading up to 50 stray tags continuously.

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.

AdvanFlow comprises:

- High power RFID reader
- One high gain antenna, with rugged enclosure
- Optional: Two satellite high gain antennas, with rugged enclosure
- Optional: AdvanCloud software

AdvanFlow does not need any external computer. The system works fully autonomously.

When running autonomously, AdvanFlow generates Move events.

Operational recommendations

- A 2.5 (two and a half) metres security area around AdvanFlow must be observed.
- For maximum performance, the number of stray tags read should be kept to the minimum, ideally less than 20.
- AdvanFlow accuracy must be measured on a daily basis, when all error-correction mechanisms have been applied.

Technical specifications



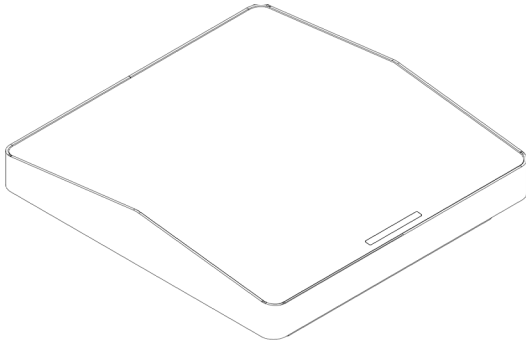
Operating Frequency	FCC (NA, SA) (902 to 928) MHz ETSI (EU, IN) (865.6 to 867.6) MHz MIC (KR) (910 to 914) MHz SRRC-MII (P.R.China) (920.125 to 924.875) MHz Australia (AU) (920.750 to 925.250) MHz New Zealand (NZ) (922.250 to 927.250) MHz Israel (IS) (915.0 to 917.0) MHz (2) Japan (JP) (916.8 to 920.8) MHz (3) Brazil (902 to 907.5) MHz (915 to 928) MHz by using channel selection Chile (916 to 928) MHz by using channel selection Peru (916 to 928) MHz by using channel selection Taiwan (922 to 928) MHz by using channel selection Open Region (1) (865 to 869) MHz and (902 to 928) MHz (by using channel selection) (2)
Beam width	40° / 70°
Polarization	Circular
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
Interface	Ethernet and USB
Transponder Protocol Standard	EPC Class1 Gen2
Operating System	Linux - Fully open
Temperature range	-20 °C to +40 °C
Dimensions	460 mm x 460 mm x 80 mm
Weight	3220 g
Human exposure	EN 50364
EMC	EN 301 489, EN 300 220
Air Interface (EU)	EN 302 208 v1.2

(1) Open channel specified applies to ETSI/FCC versions. CH versions open channel is defined between 840 to 845 MHz and 920 to 925 MHz.

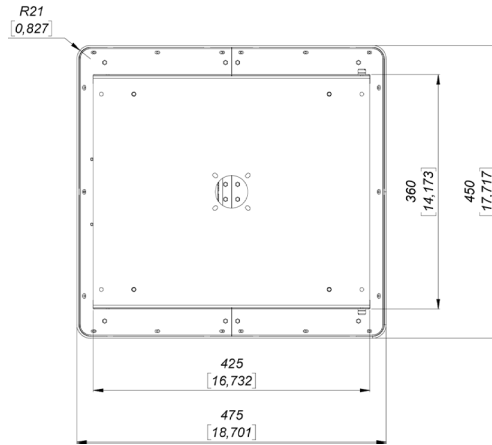
(2) Band is defined as a carrier sub-set from FCC. There is no specific Surface Acoustic Wave (SAW) filter for the band. Given the maximum conducted power there shouldn't be problems with local regulation.

Mechanical specifications

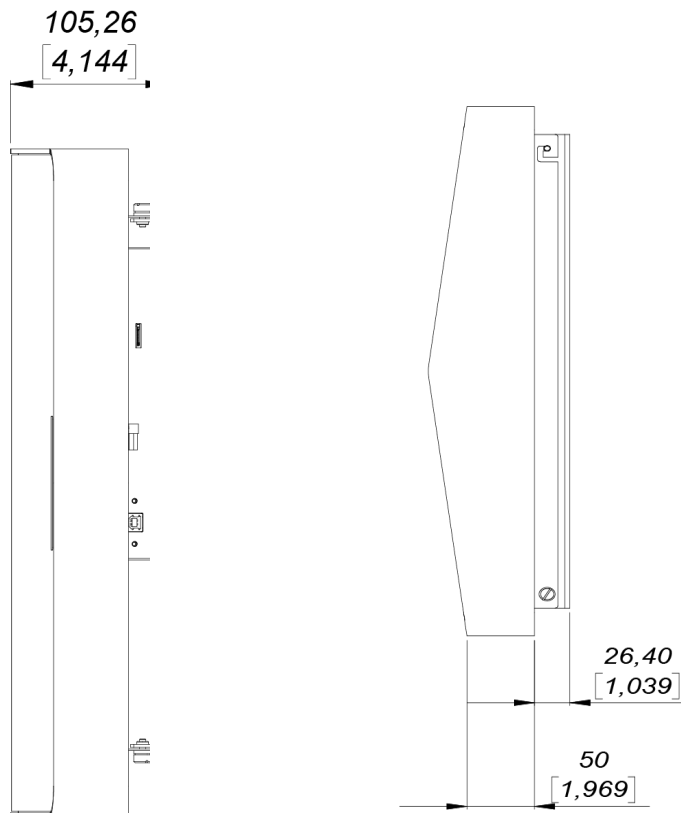
Front view



Top view



Side view



Units in millimeters and [inches]

Product codes for ordering

ADFL	-	M		FF	-	A	-	mmm	-	CCC	
											M = mount type
		OMC									Ceiling mount (attached to the ceiling or suspended with a pole, pole not included)
		OMS									Suspended with metallic wires (included)
											FF = frequency band
				EU							865.6 MHz – 867.6 MHz
				US							902.0 MHz – 928.0 MHz
											A = antenna model
						22					SP customized antenna
											mmm = series
								100			Model number
											CCCC= customization
										C001	Suspension wires of 4m
										C002	Black color

Examples:

ADFL-10T-OMSEU-22-100:

- AdvanFlow
- Overhead master suspension mount
- ETSI frequency band
- Model 100

ADFL-OMCUS-22-100-C002:

- AdvanFlow
- Overhead master ceiling mount
- US frequency band
- Model 100
- Black color



Copyright © Keonn Technologies S.L.
All rights reserved.

Information in this publication
supersedes all earlier versions.
Specifications subject to change
without notice.

