

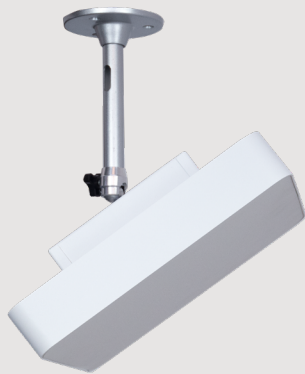


# keonn

Retail RFID  
Systems

## AdvanTrack-50™

Overhead tracking system



ES France - Département Composants & Modules  
127 rue de Buzenval BP 26 - 92380 Garches



Tél. 01 47 95 99 89



e-mail : [comp@es-france.com](mailto:comp@es-france.com)  
Site Web : [www.es-france.com](http://www.es-france.com)



### Benefits:

- Asset tracking
- Item tracking
- People tracking
- Compact design
- Easy installation, configuration and integration
- Cost effective

### Applications:

- Corporate buildings
- Hospitals
- Factories
- Warehouses
- Any low ceiling space where item tracking is required

### Product overview

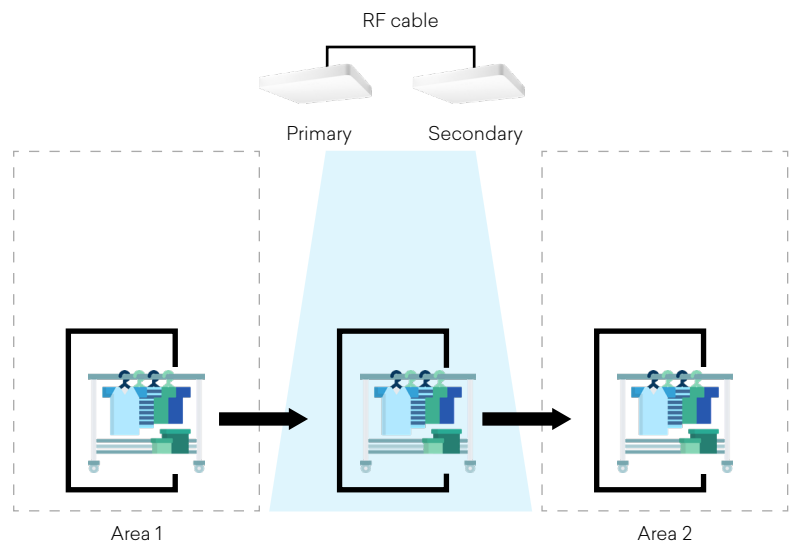
AdvanTrack-50 is an RFID UHF overhead system that accurately tracks assets, items and people in a wide variety of spaces, like corporate buildings, hospitals, factories, warehouses, etc.

AdvanTrack comprises a high performance, high flexibility reader with a high gain stationary antenna, capable of scanning all tagged items crossing below.

By using primary and secondary units, AdvanTrack achieves high read-rate and is very cost efficient:

- The primary unit comprises a reader and antenna
- The secondary unit comprises an antenna

One primary unit can be connected up to one secondary unit.





### Technical specifications of AdvanTrack-50

RF connections	One 50 ohm SMA connector for a secondary antenna
RF Power	Programmable from 0 dBm to 30 dBm in 0.5 dBm steps (Maximum power may have to be reduced to meet regulatory limits)
Max tag read throughput	Up to 50 tags/second
Power consumption	Idle consumption < 3 W Max consumption (@30dBm) < 9 W
Inputs	2 x digital/analog inputs, 10 bits resolution Inputs accepted in the range: 0 V – 3 V (IN 1) 0 V – 10 V (IN 2)
Outputs	4 x digital outputs (100 mA) 1 x digital outputs (8 mA) 1 x relay output (24 VDC / 0.5 A / Resistive load) Loudspeaker (8 ohm / 2 W)
Dimensions	Primary: 25 cm x 25 cm x 8 cm (9,8 inches x 9,8 inches x 3,1 inches) Secondary: 25 cm x 25 cm x 4,5 cm (9,8 inches x 9,8 inches x 1,8 inches)
Weight	Primary: 1.495 kg (3296 lb) Secondary: 1.085 kg (2392 lb)
Data communications	Ethernet: IEEE 802.3 up to 100 Mbps Ethernet over USB (micro USB Type-B connector) USB HID hardware emulation (USB Type-B connector)
Power supply	Power Over Ethernet (PoE) <ul style="list-style-type: none"> <li>• Supports IEEE 802.3af (Type I) and IEEE 802.3at (Type II)</li> <li>• Power consumption: Class 3I</li> </ul> Power supply 24 V (DC) <ul style="list-style-type: none"> <li>• 18 V to 26 V DC Maximum current rating 2.5 A</li> </ul>
Output power	5 V (DC) @ 100 mA non-isolated power supply to feed external devices and circuitry
On-board sensors and actuators	Buzzer RTC chip to keep Date&Time between reboots. Battery life time more than 10 years in power off mode.
Temperature	Operating temperature: -20 °C to +50 °C Storage temperature: -30 °C to +60 °C
Humidity	20 % to 85 % without condensation



### Software specifications of AdvanTrack-50

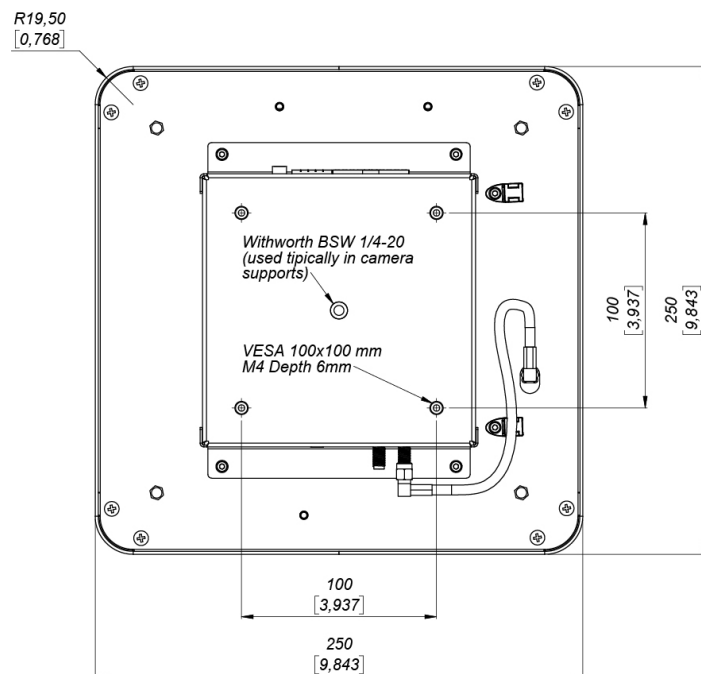
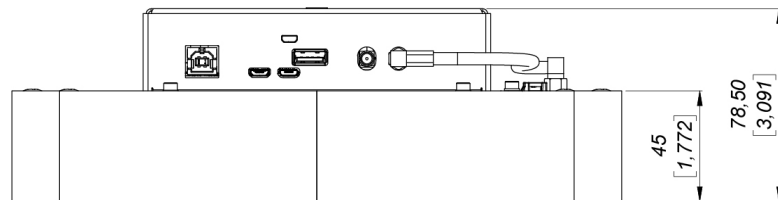
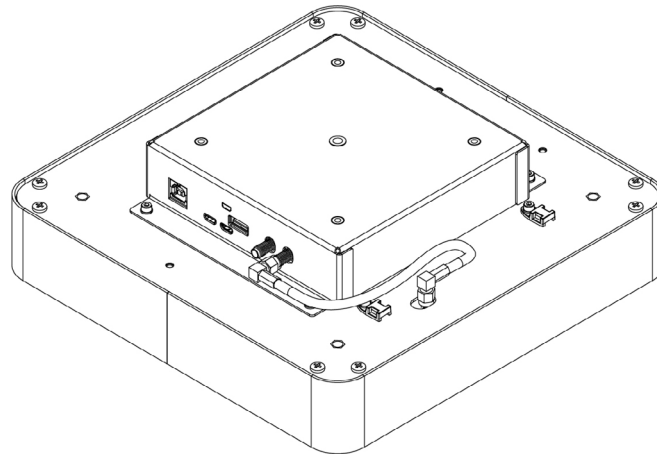
On-board intelligence	<p>ARM board</p> <ul style="list-style-type: none"> <li>• Cortex A-8 CPU (1 GHz)</li> <li>• 512 MB RAM</li> <li>• 4 GByte ROM with Operating System</li> <li>• 1 x USB connector type A</li> </ul>
Included software	<p>On-board software</p> <ul style="list-style-type: none"> <li>• Debian 10 based distribution.</li> <li>• Patched kernel from the 4.14 branch</li> <li>• AdvanNet-2.5.x: advanced driver platform for Keonn components and systems.</li> </ul>
Development	<p>Embedded Development:</p> <ul style="list-style-type: none"> <li>• Java development: based on a modified ThingMagic Mercury API <ul style="list-style-type: none"> <li>• Java development (Java JRE 1.8 )</li> </ul> </li> <li>• C development: based on Mercury API <ul style="list-style-type: none"> <li>• C development (libc 2.24)</li> </ul> </li> <li>• REST API</li> </ul> <p>External Development:</p> <ul style="list-style-type: none"> <li>• AdvanNet based: <ul style="list-style-type: none"> <li>• AdvanNet Manager: test and deploy web-based GUI utility.</li> <li>• REST interface that can be used in any development environment.</li> </ul> </li> </ul> <p>Other options:</p> <ul style="list-style-type: none"> <li>• The OS is fully open<sup>12</sup></li> </ul>

### RF specifications of AdvanTrack-50

Air Protocol Interface	EPC global UHF Class 1 Gen 2 / ISO 18000 - 6 C
Supported regions	<p>FCC (NA, SA) (902 to 928) MHz  ETSI (EU) (865.6 to 867.6) MHz  TRAI(India) (865 to 867) MHz  KCC (Korea) (917 to 923.5) MHz  MIC (Japan) (916.9 to 923.4) MHz  ACMA (AU) (920 to 926) MHz  NZ (New Zealand) (922 to 927) MHz  SRRC-MII (P.R.China) (920.125 to 924.875) MHz  MY (Malaysia) (919.0 to 923.0) MHz  ID (Indonesia) (923.0 to 925.0) MHz  PH (Philippines) (918.0 to 920.0) MHz  TW (Taiwan) (922.0 to 928.0) MHz  MO (Macao) (920.0 to 925.0) MHz  RU (Russia) (866.0 to 868.0) MHz  SG (Singapore) (920.0 to 925.0) MHz  VN (Vietnam) (866.0 to 869.0) MHz  TH (Thailand) (920.0 to 925.0) MHz  AR (Argentina) (915.0 to 928.0) MHz  HK (Hong Kong) (865.0 to 868.0) MHz  BD (Bangladesh) (925.0 to 927.0) MHz  Brazil (917.4 to 927.2) MHz by using channel selection  Chile(917.4 to 927.2) MHz by using channel selection  Peru (917.4 to 927.2) MHz by using channel selection  Taiwan (922.600 to 927.2) MHz by using channel selection  Open Region (859 to 873) MHz and (915 to 930) MHz</p>

### Mechanical specifications

#### Primary unit

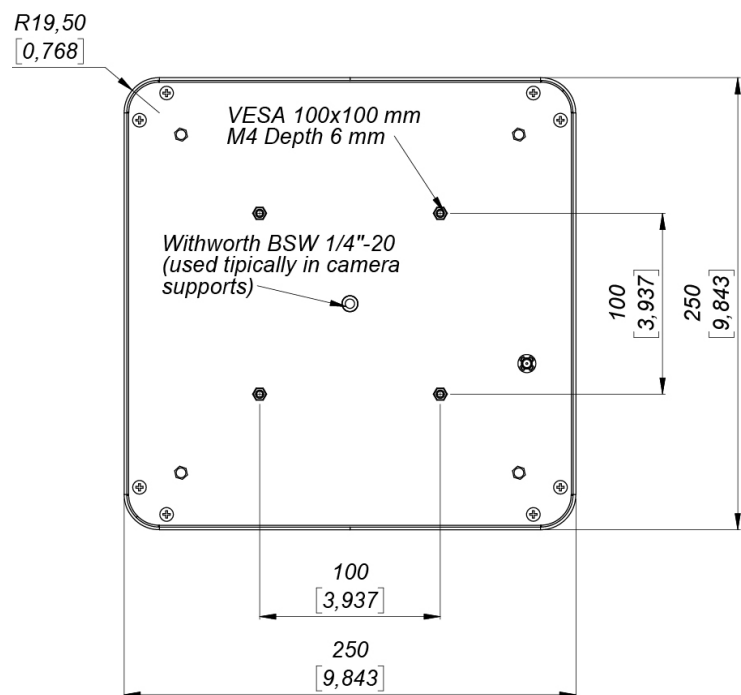
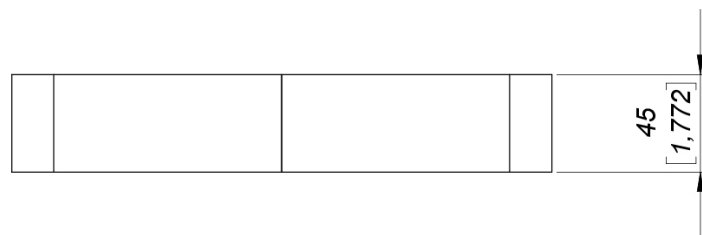
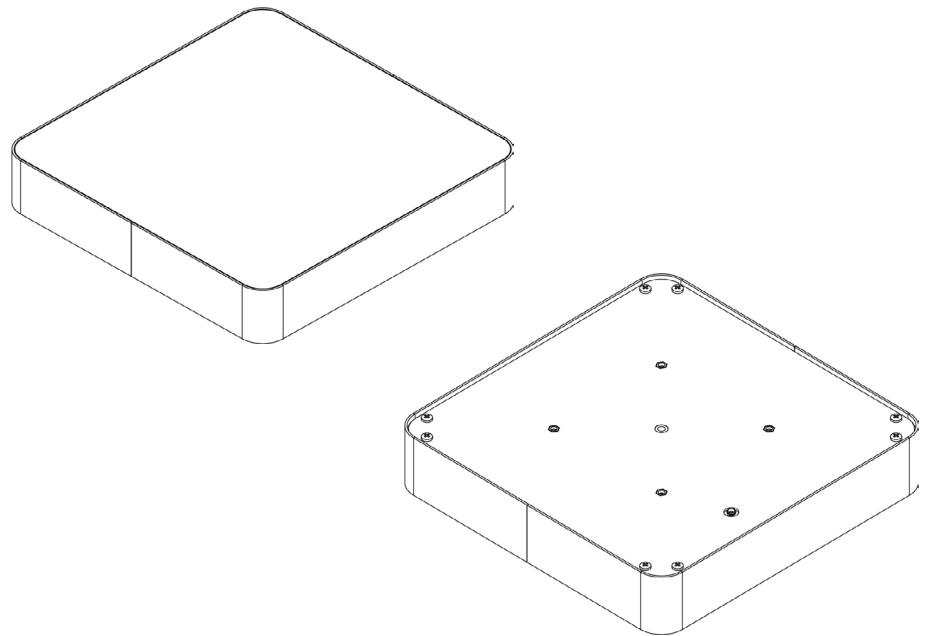


Units in millimeters and [inches]



### Mechanical specifications

#### Secondary unit



Units in millimeters and [inches]



### Product codes for ordering

ADTR	-	O	T	M	FF	-	MMM	
								<b>O = Overhead</b>
		O						Overhead
								<b>T = Type</b>
			M					Primary
			S					Secondary
								<b>M = mount</b>
				C				Ceiling / wall mount (attached to the ceiling or suspended with a pole, pole not included)
								<b>FF = frequency band</b>
					EU			865,6 MHz - 867,6 MHz
					US			902,0 MHz - 928,0 Mhz
								<b>Model</b>
							50	Model number

Examples:

#### ADTR-OMCEU-50:

- AdvanTrack
- Overhead
- Primary unit
- Ceiling mount (attached to the ceiling or suspended with a pole)
- ETSI frequency band
- Model 50

#### ADTR-OSCUS-50:

- AdvanTrack
- Overhead
- Secondary unit
- Ceiling mount (attached to the ceiling or suspended with a pole)
- FCC frequency band
- Model 50





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supersedes all earlier versions.  
Specifications subject to change  
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Tel: +34 931 814 477

Barcelona  
London



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**e-mail : [comp@es-france.com](mailto:comp@es-france.com)**  
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