

AdvanReader-10™

USB RFID reader



Product overview

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

AdvanReader-10 requires an external controller to be operated.

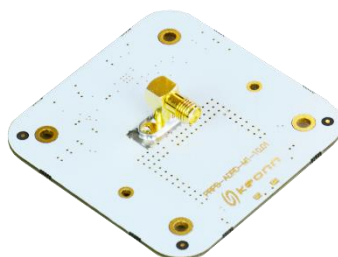
AdvanReader-10 is perfect for **IoT applications** and other **embedded** uses where a controller hardware already exists.

SDK available for:

- Java
- C#
- C/C++

AdvanReader-10 comes with **two models**:

- with embedded ceramic antenna
- with a SMA connector to operate with any antenna



Benefits:

- High-performance
- Small form factor
- Lightweight
- With optional embedded antenna
- Reduces time and cost of developing RFID systems

Applications:

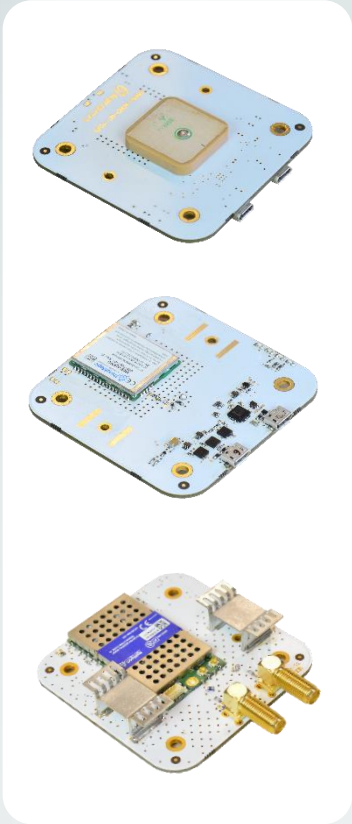
- Access control
- Android-based systems
- IoT applications
- Embedded applications

Specifications with SMA connector

RF connector	One 50 ohm SMA connector SMA connector can be ordered as: <ul style="list-style-type: none">• flange• flange right angle• flange right angle 180 degrees rotation
Max tag read distance	Up to 6 meters with a 6 dbiL antenna (read distance depends highly on tag sensitivity and other factors)
Dimensions	FL 68 mm x 68 mm x 151 mm (2.68 inches x 2.68 inches x 0.59 inches) FR 68 mm x 68 mm x 182 mm (2.68 inches x 2.68 inches x 0.71 inches)
Weight	28 g (0.99 oz)

Specifications with embedded antenna

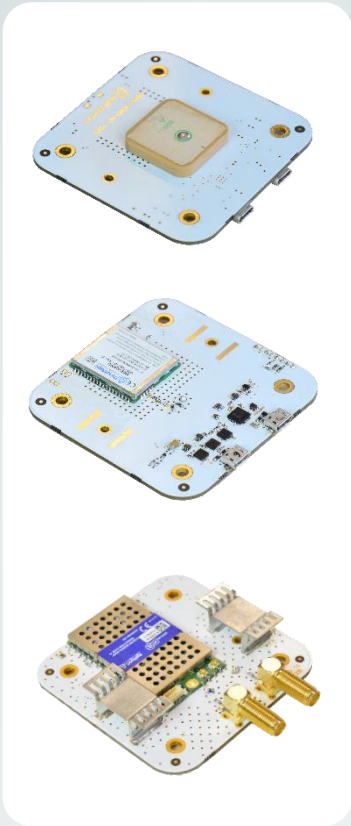
Max tag read distance	Up to 1.5 m for the EU version Up to 1 meter for the US version (read distance depend highly on tag sensitivity and other factors)
Dimensions	68 mm x 68 mm x 10 mm (2.68 inches x 2.68 inches x 0.39 inches)
Weight	EU version 37 g (1.31 oz) US version 50 g (1.76 oz)



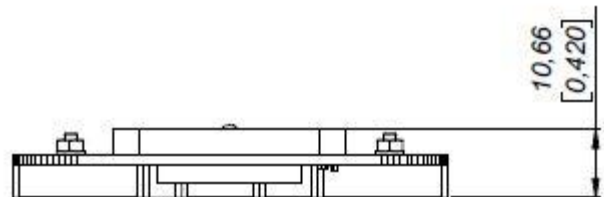
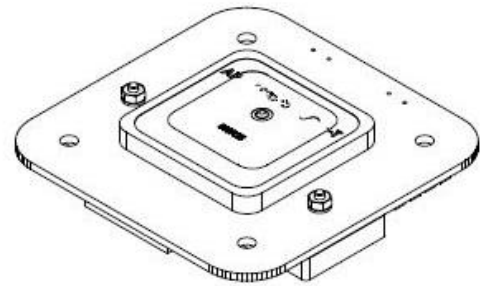
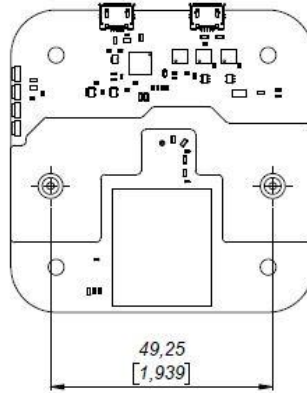
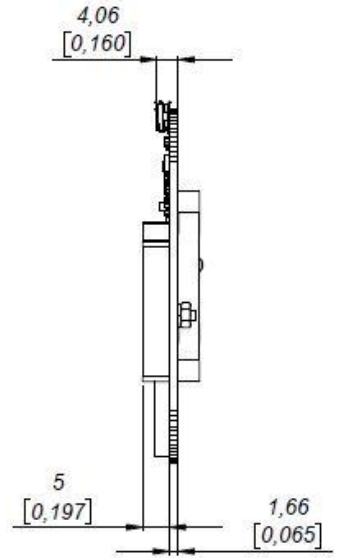
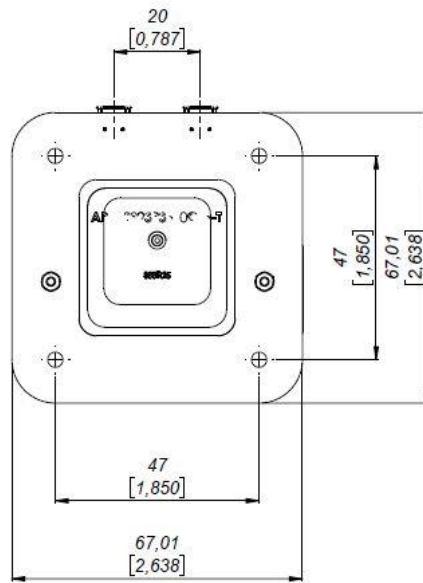
RF Common Specifications

Air Protocol Interface	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Supported regions	<p>FCC (NA, SA) (917.4 – 927.2) MHz ETSI (EU) (865.6 - 867.6) MHz TRAI (India) (865 - 867) MHz KCC (Korea) (917 – 923.5) MHz MIC (Japan) (916.8 – 920.8) MHz ACMA (AU) (920 – 926) MHz NZ (New Zealand) (922 – 927.5) MHz SRRC-MII (P.R.China) (920.125 – 924.875) MHz Brazil (917.4 – 927.2) MHz by using channel selection Chile (917.4 – 927.2) MHz by using channel selection Peru (917.4 – 927.2) MHz by using channel selection Taiwan (922 – 928) MHz by using channel selection Open Region (865 – 869) MHz and (917.4 – 927.2) MHz (by using channel selection)</p>
RF Power	Programmable from 0 dBm to 27 dBm in 0.5 dBm steps
Max tag read throughput	Up to 150 tags/second
Data communications	<p>USB comm connector (micro-B) Communications uses RS232 over USB (FTDI chip)</p> <p>USB comm connector (micro-B) The USB data connector is the primary power supply source (USB 2.0 host devices should offer a maximum of 500 mA, and 500 mA it is not enough to conduct RF power higher than 18 dBm / 20 dBm. However, some hardware USB ports may supply more than 500 mA, and whenever that available current is 1 A or higher, this is enough to conduct the maximum RF power -27 dBm-.) Caution must be taken when using high loss cables2:</p> <ul style="list-style-type: none"> • long cables • cables with high AWG values
Power supply	<p>USB power connector (micro-B) In case the USB data connector does not provide enough power for the reader to work, the USB power connector can be used.</p> <p>When the USB power connector is used, the available power of the reader is only due to the available power at the USB power connector. When using the USB power connector, make sure to supply all required power on the USB power connector.</p>
On-board sensors and actuators	RF amplifier temperature sensor (available through the reader API)
Power consumption	<p>Idle consumption < 1 W Max RF consumption (@27 dBm) < 4.5 W</p>
Temperature	-20 °C to +50 °C
Humidity	20 % to 85 % without condensation

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Mechanical specifications (AdvanReader-10 with integrated antenna):



Units in millimeters and [inches]

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Product codes for ordering

ADDR	-	mx	-	CT	-	FF	-	sc	
									x = number of ports
		m1							1 port
									CT = connector type
				-					No connector, embedded antenna
				FLSMA					Flange, SMA version
				FRSMA					Flange right angle, SMA version
				FR180SMA					Flange right angle, 180 rotated SMA version
									FF = frequency band
				-					With connector, multiple bands
						EU			EU (865,6 MHz - 867,6 MHz)
						US			US (902,0 MHz - 928,0 Mhz)
									sc = series code
								10	Series 10

Note: CT and FF options are exclusive, either one or the other can exist in one product model

Examples:

- **ADDR-m1-EU-10:**
 - AdvanReader
 - With 1 port
 - With embedded antenna
 - EU frequency band
 - Model 10

- **ADDR-m1-FLSMA-10:**
 - AdvanReader
 - With 1 port
 - With flange straight connector
 - Model 10

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