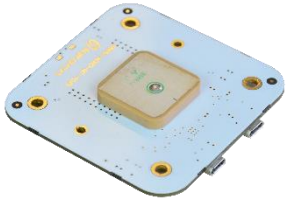
AdvanReader-10™
USB RFID reader



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

Product overview

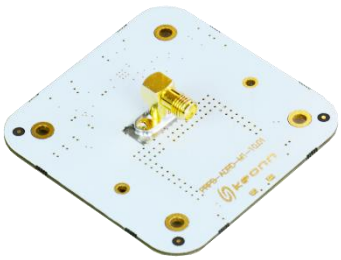
AdvanReader-10 is a **small form factor**, **lightweight**, **high performance USB reader** with an **integrated antenna** (optional).

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

AdvanReader-10 requires an external controller to be operated.

SDK available for:
- Java
- C#
- C/C++

AdvanReader-10 comes with **three models**:
- 1 port with embedded ceramic antenna
- 1 port with a SMA connector to operate with any antenna
- 2 ports with 2 corresponding SMA connectors



Specifications of 1 port with SMA connector

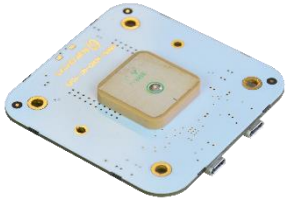
RF connector	One 50 ohm SMA connector SMA connector can be ordered as: • flange • flange right angle • flange right angle 180 degrees rotation
Max tag read distance	Up to 6 meters with a 6 dbiL antenna (read distance depends highly on tag sensitivity and other factors)
Max tag read throughput	Up to 150 tags/second
RF Power	Programmable from 0 dBm to 27 dBm in 0.5 dBm steps
Power consumption	Idle consumption < 1 W Max RF consumption (@27 dBm) < 4.5 W
Dimensions	FL 68 mm x 68 mm x 21.5 mm (2.68 inches x 2.68 inches x 0.84 inches) FR 68 mm x 68 mm x 25 mm (2.68 inches x 2.68 inches x 0.98 inches)
Weight	28 g (0.99 oz)

Specifications of 1 port 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)
Max tag read throughput	Up to 150 tags/second
RF Power	Programmable from 0 dBm to 27 dBm in 0.5 dBm steps
Power consumption	Idle consumption < 1 W Max RF consumption (@27 dBm) < 4.5 W
Dimensions	68 mm x 68 mm x 10.7 mm (2.68 inches x 2.68 inches x 0.42 inches)
Weight	EU version 37 g (1.31 oz) US version 50 g (1.76 oz)

Follow us on twitter: @KeonnTech

AdvanReader-10™
USB RFID reader



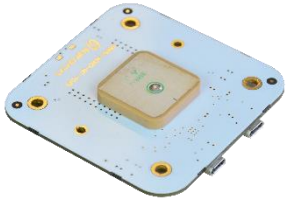
Specifications of 2 ports with two SMA connector

RF connector	Two 50 ohm SMA connector SMA connector can be ordered as: • flange • flange right angle • flange right angle 180 degrees rotation
Max tag read distance	Up to 6.5 meters with a 6 dbiL antenna (read distance depends highly on tag sensitivity and other factors)
Max tag read throughput	Up to 50 tags/second
RF Power	Programmable from 0 dBm to 30 dBm in 0.5 dBm steps
Power consumption	Idle consumption < 3.5 W Max consumption (@30 dBm) < 9.5 W
Dimensions	82 mm x 68 mm x 15.1 mm (3.23 inches x 2.68 inches x 0.59 inches)
Weight	42 g (1.48 oz)

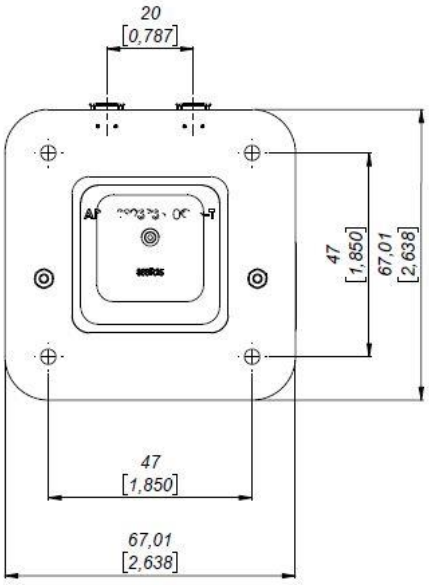
RF Common Specifications

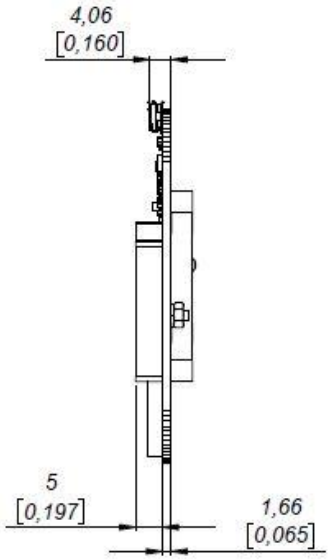
Air Protocol Interface	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Supported regions	FCC (NA, SA) (917.4 – 927.2) MHz ETSI (EU) (865.6 - 867.6) MHz TRAI (India) (865 - 867) MHz KCC (Korea) (917 – 923.5) MHz MIC (Japan) (916.8 – 920.8) MHz ACMA (AU) (920 – 926) MHz NZ (New Zealand) (922 – 927.5) MHz SRRC-MII (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)
Data communications	**USB comm connector (micro-B)** Communications uses RS232 over USB (FTDI chip)
Power supply	**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 o higher, this is enough to conduct the maximum RF power -27 dBm-.) Caution must be taken when using high loss cables2: • long cables • cables with high AWG values **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. 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.
On-board sensors and actuators	RF amplifier temperature sensor (available through the reader API)
Temperature	-20 °C to +50 °C
Humidity	20 % to 85 % without condensation

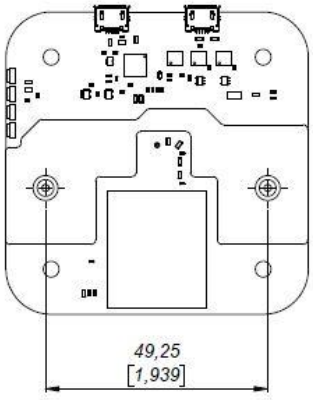
AdvanReader-10™
USB RFID reader

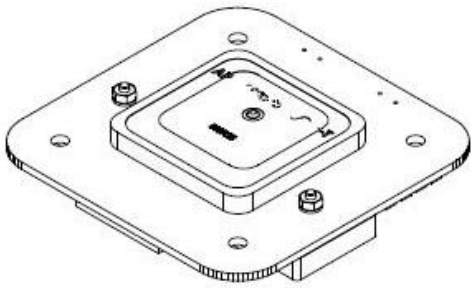


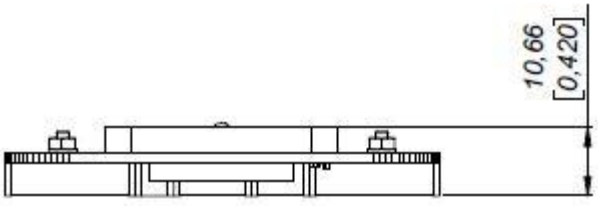
Mechanical specifications
(1 port with integrated antenna):





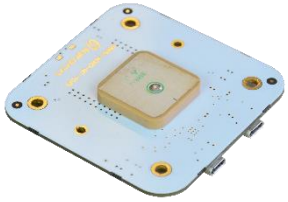




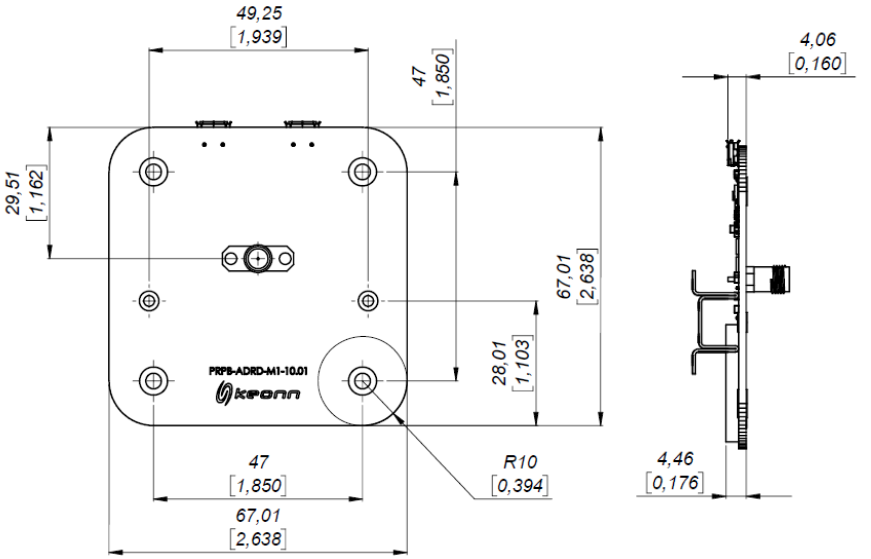


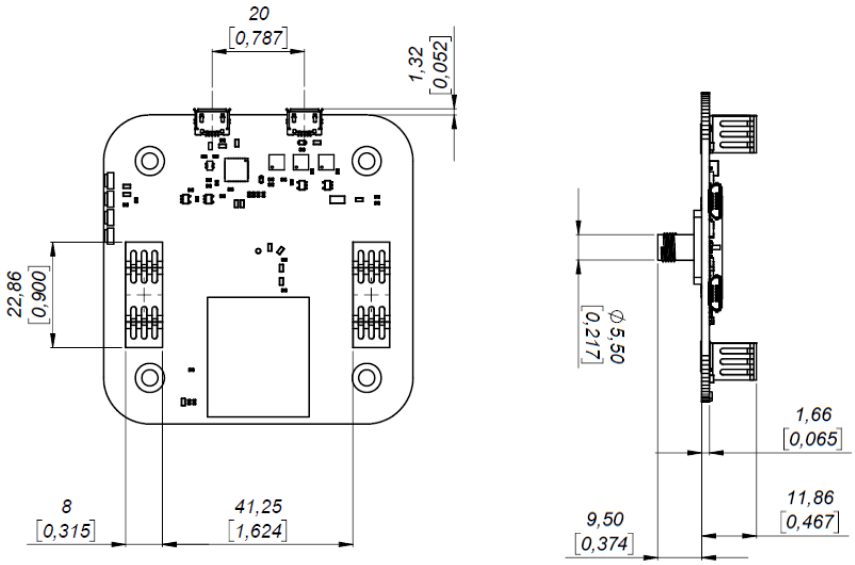
Units in millimeters and [inches]

AdvanReader-10™
USB RFID reader



Mechanical specifications (1 port):

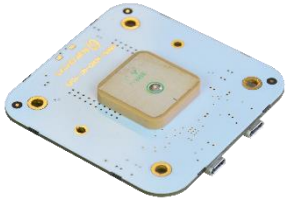




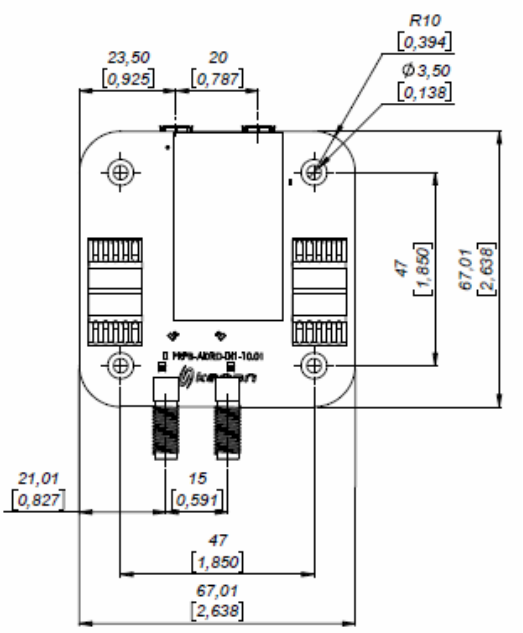
Units in millimeters and [inches]

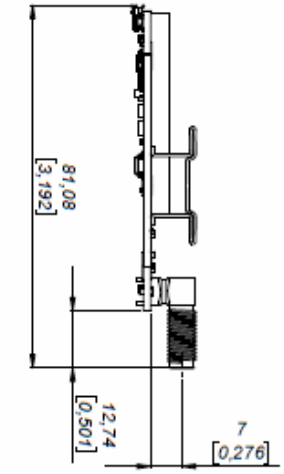
Follow us on twitter: @KeonnTech

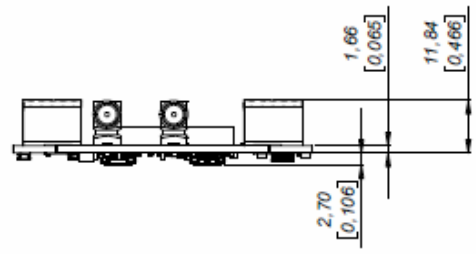
AdvanReader-10™
USB RFID reader

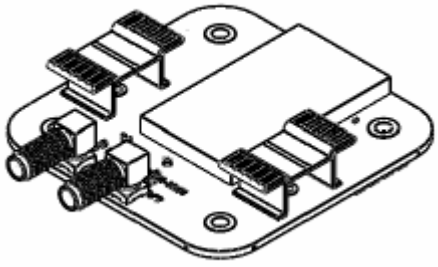


Mechanical specifications
(2 ports without enclosure):





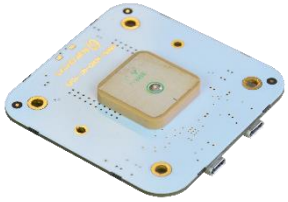




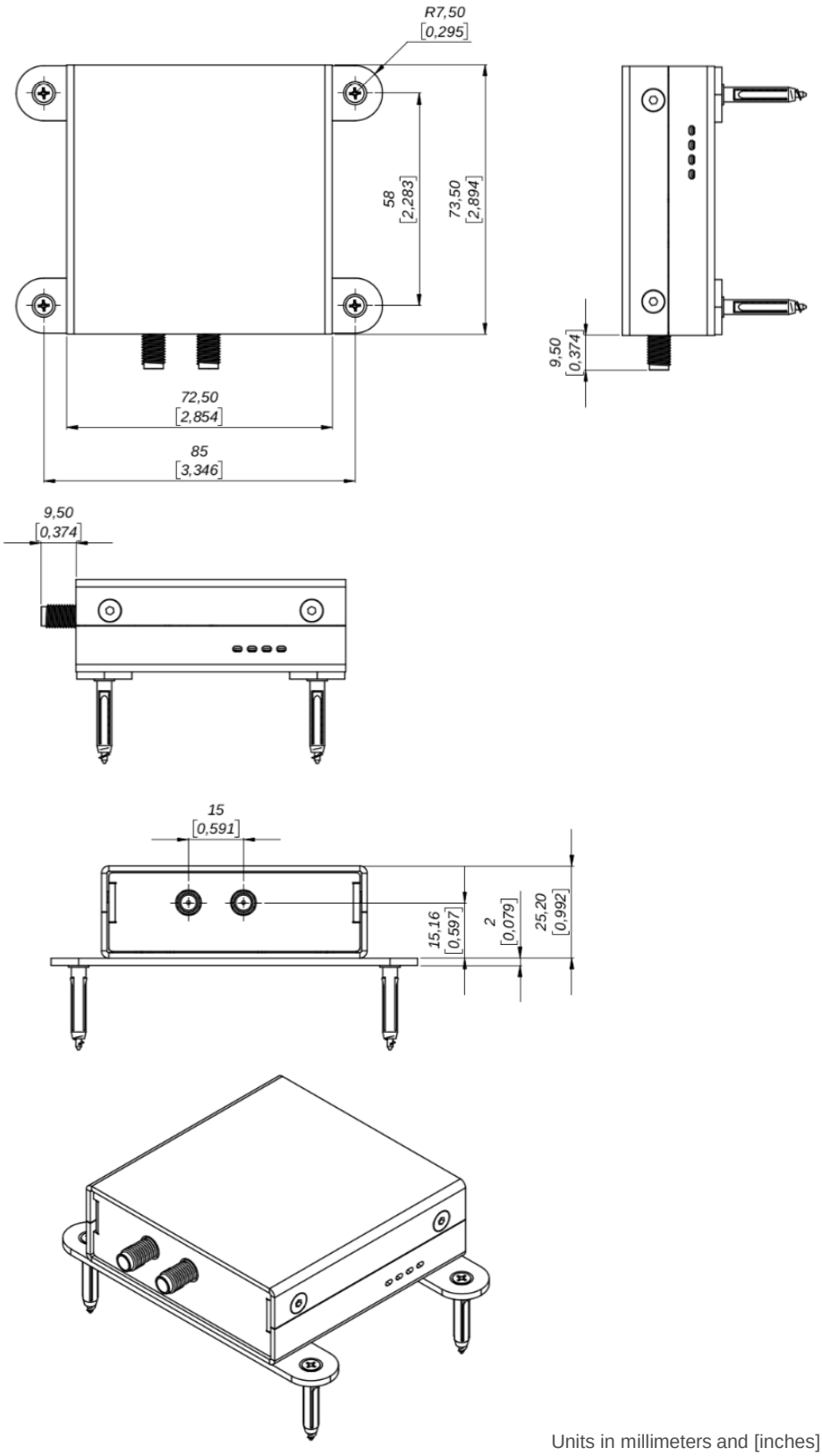
Units in millimeters and [inches]

Follow us on twitter: @KeonnTech

AdvanReader-10™
USB RFID reader



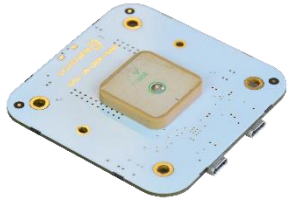
Mechanical specifications (2 ports with enclosure):



Units in millimeters and [inches]

Follow us on twitter: @KeonnTech

AdvanReader-10™
USB RFID reader



Product codes for ordering

ADRD	-	mx	-	CT	-	FF	-	sc	
									x = number of ports
		m1							1 port
		m2							2 ports
									CT = connector type
									For 1 port:
				-					No connector, embedded antenna
				FLSMA					Flange, SMA version
				FRSMA					Flange right angle, SMA version
				FR180SMA					Flange right angle, 180 rotated SMA version
									For 2 port:
				SMA					Flange right angle SMA version
				eSMA					Flange right angle SMA version, **with enclosure**
									FF = frequency band
						EU			With embedded ETSI antenna (865,6 MHz - 867,6 MHz)
						US			With embedded FCC antenna (902,0 MHz - 928,0 Mhz)
						-			With connector, multiple bands
									sc = series code
								10	Series 10

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

Examples:

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

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

- **ADRD-m2-eSMA-10:**
  - AdvanReader
  - 2 port
  - With flange straight SMA connector
  - With enclosure
  - Model **10**

Keonn Technologies S.L.
Pere IV, 78-84, planta 6, 3a
08005 Barcelona, Spain

Tel: +34 931 814 477
info@keonn.com
www.keonn.com