

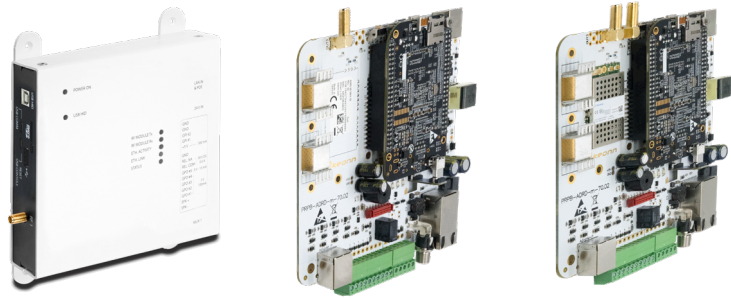


# keonn

Modular RFID  
Components

## AdvanReader-70™ 1 or 2 port RFID UHF reader





### Benefits:

- High flexibility (1 or 2 ports)
- On board computer with fully open Linux OS
- Small form factor
- 2 digital/analog inputs
- 5 digital outputs and 1 relay output
- Acts as HID USB device
- Reduces time and cost of developing RFID systems
- You can make it your own reader by putting your company logo on the enclosure
- Direct connection to an external loudspeaker

### Applications:

- Smart shelves
- Smart display fixtures
- Smart surfaces
- RFID portals
- RFID tunnels
- Point of Sales
- Loss prevention systems
- In general, any RFID application

### Product overview

**AdvanReader-70** is a flexible UHF reader with an on-board microcomputer and a fully open Linux operating system.

AdvanReader-70 comes with **two models**:

- 1 port, 27 dBm maximum output power
- 2 port, 30 dBm maximum output power

Thanks to its on-board microcomputer, AdvanReader-70 can work **stand-alone**, without needing to be connected to an external computer, thereby reducing equipment costs, installation costs, and maintenance costs.

### Additional product features

AdvanReader-70 is also very flexible in terms of **inputs** and **outputs**:

- 5 x digital outputs and 1 relay output
- 2 digital/analog inputs
- Direct LED connections
- Loudspeaker: 8 ohm/2 W

AdvanReader-70 can become **your own reader**: your company logo can be the only logo on the enclosure.

AdvanReader-70 includes several **actuators** and **indicators** on-board:

- On-board buzzer
- On-board LED indicators for: power on (white), RF Tx (red), RF Rx (green), status (orange), etc.

AdvanReader-70 has small form factor (137 mm x 137 mm x 24 mm) and can be used in any RFID application.

AdvanReader-70 comes with a comprehensive set of built-in HW/SW communication options:

- USB HID emulation: allows generating keyboard events based on Reader events.
- HTTP: user-configurable HTTP request generation based on Reader events.
- MQTT: user-configurable MQTT packet generation based on Reader events.
- SQL: user-configurable SQL sentence generation based on Reader events.
- TCP: real-time TCP socket of Reader events.



### Common RF specifications of all AdvanReader-70 models

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>
RFID chip	Impinj

### Common software specifications of all AdvanReader-70 models

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</li> </ul>
On-board software	<p>AdvanNet: advanced driver platform for Keonn components and systems            Debian Squeeze (Debian 10.1) based distribution</p>
External software development	<p>AdvanNet based:</p> <ul style="list-style-type: none"> <li>• Test and deploy web-based GUI utility (AdvanNet Monitor)</li> <li>• REST interface that can be used in any development environment</li> </ul>
Internal development environments	<p>Java development            C development</p>
Operating system	Fully open





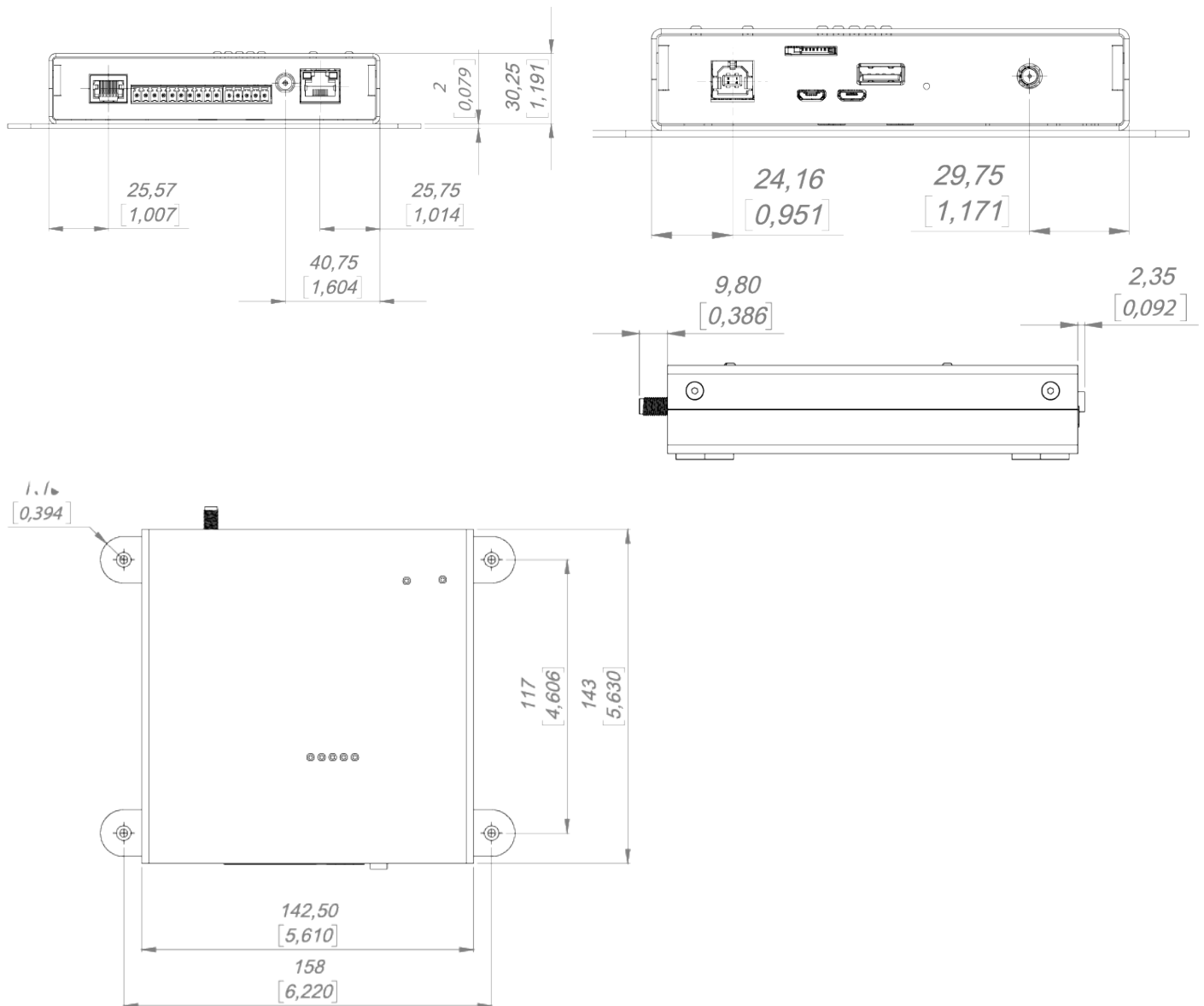
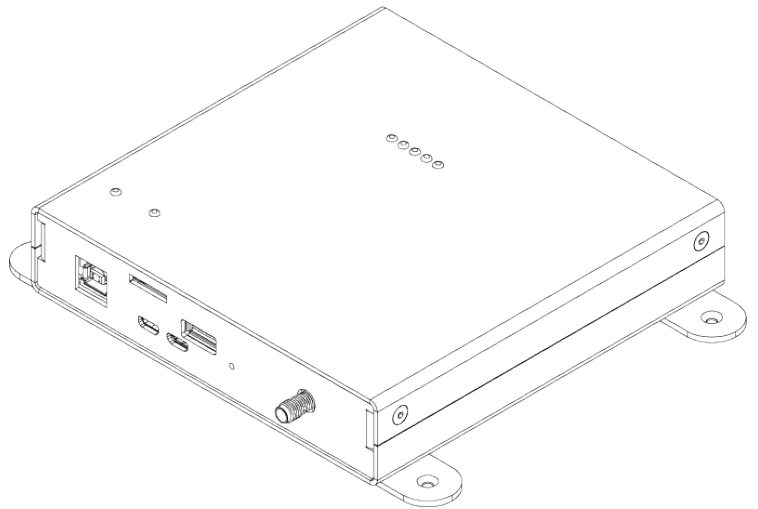
### Specifications of AdvanReader-70 with one port

RF connections	One 50 ohm SMA connectors for monostatic antennas
RF Power	Programmable from 0 dBm to 27 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 (@27 dBm) < 7 W

### Specifications of AdvanReader-70 with two ports

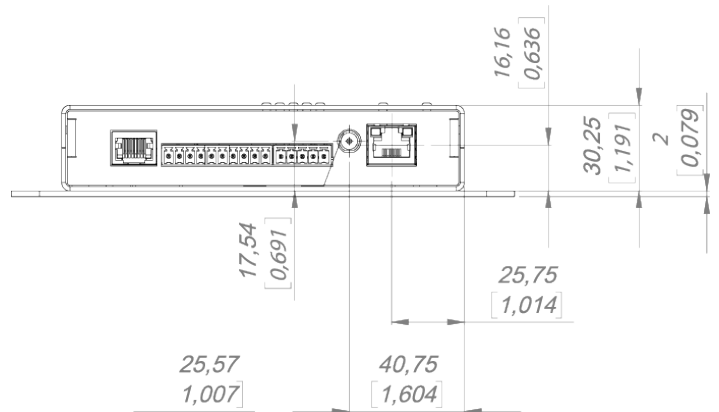
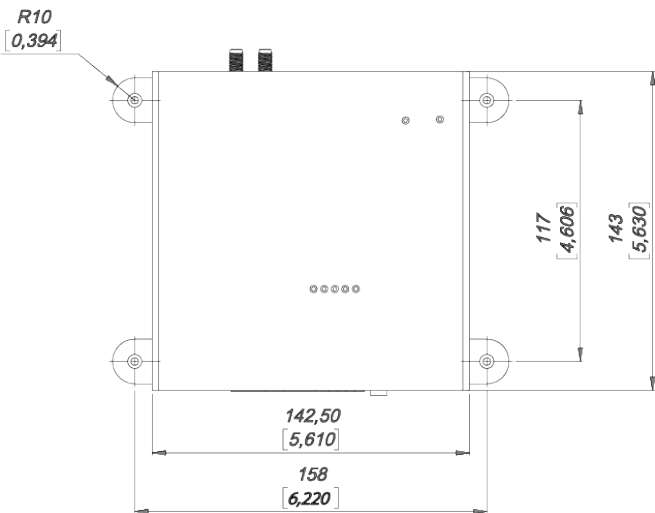
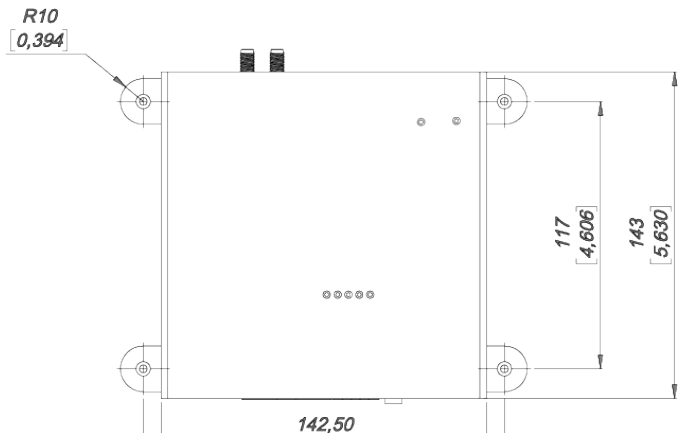
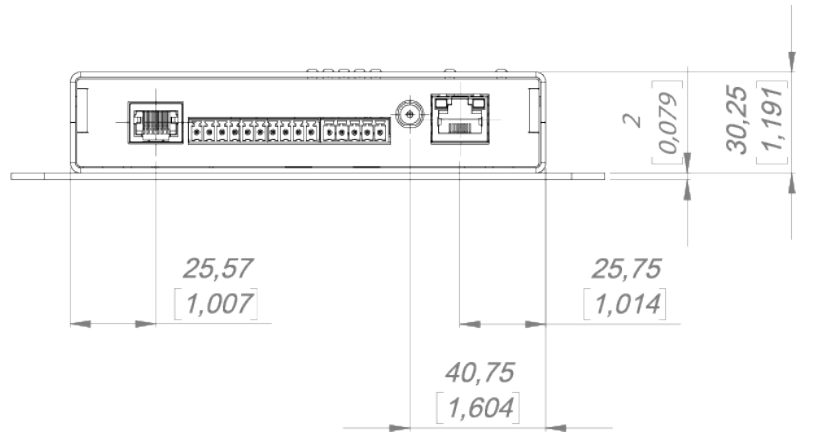
RF connections	Two 50 ohm SMA connectors for monostatic antennas
RF Power	Programmable from 0 dBm to 30 dBm in 0.5 dBm steps (Maximum power may have to be reduced to meet regulatory limits)
Max tag read throughput	Up to 50 tags/second
Power consumption	Idle consumption < 3 W Max consumption (@30dBm) < 9 W

## Mechanical specifications of AdvanReader-70 with one port



Units in millimeters and [inches]

## Mechanical specifications of AdvanReader-70 with two ports



### Product codes for ordering

ADRD	-	MX	-	E	CT	-	SC	
								<b>MX = number of ports</b>
		M1						1 port
		M2						2 ports
								<b>E = enclosure</b>
				-				without enclosure
				E				with enclosure
								<b>CT = connector type</b>
					SMA			SMA Straight PCB mount
								<b>SC = series code</b>
							70	Serie 70

Examples:

#### ADRD-M1-SMA-70:

- AdvanReader
- With 1 port
- Without enclosure
- SMA connector type
- Model **70**

#### ADRD-M2-ESMA-70:

- AdvanReader
- With 2 ports
- With enclosure
- SMA connector type
- Model **70**



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