

AdvanReader-60™

1 or 2-port RFID UHF reader with on-board computer and open Linux OS



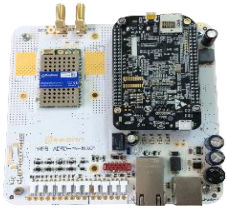
Product overview

AdvanReader-60 is a flexible UHF reader with an on-board microcomputer and a fully open Linux operating system.

AdvanReader-60 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-60 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-60 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-60 can become **your own reader**: your company logo can be the only logo on the enclosure.

AdvanReader-60 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-60 has small form factor (137x137x24mm) and can be used in any RFID application.

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

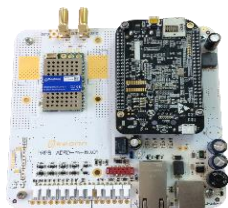
Applications:

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



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Common RF specifications of all AdvanReader-60 models:

Air Protocol Interface	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Supported regions	FCC (NA, SA) 902 MHz - 928 MHz
	ETSI (EU, IN) 865.6 MHz - 867.6 MHz
	MIC (KR) 910 MHz - 914 MHz
	SRRC-MII (P.R.China) 920 MHz - 925 MHz
	Brazil: 902-907,5 MHz and 915-928 MHz (by using channel selection)
ACMA (AU, NZ) 920 MHz – 926 MHz	Open region
Max tag read distance	Up to 9 m (33 feet) with 6 dBi gain antennas

Common software Specifications of all AdvanReader-60 models:

On-board intelligence	ARM board <ul style="list-style-type: none"> • Cortex A-8 CPU (1 GHz) • 512 MB RAM • 4 GByte ROM with Operating System • 1 x USB connector
On-board software	AdvanNet: advanced driver platform for Keonn components and systems Debian Squeeze (Debian 7.4) based distribution
External software development	AdvanNet based: <ul style="list-style-type: none"> • Test and deploy web-based GUI utility (AdvanNet Monitor) • REST interface that can be used in any development environment
Internal development environments	Java development C development
Operating system	Fully open

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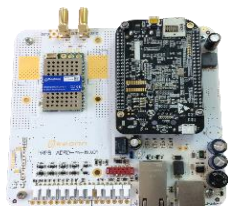
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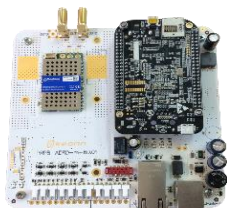


Common electrical, communication and mechanical specifications of all AdvanReader-60 models:

Data communications	Ethernet: IEEE 802.3 up to 100 Mbps Wi-Fi through a USB dongle: a list of compatible USB dongles is available Wi-Fi USB dongle not included
Power supply	Power Over Ethernet (PoE): IEEE 802.3af and 802.3at (Type 1 & Type 2) On board battery for RTC chip
Output power	5 V (DC) @ 200 mA non-isolated power supply to feed external devices and circuitry
On-board sensors and actuators	Buzzer
On-board LED indicators	LED ON (White LED) LED status (Orange LED) LED M6e Rx line (Green LED) LED M6e Tx line (Red LED)
Inputs	2 x digital/analog inputs, 10 bits resolution Inputs accepted in the range: <ul style="list-style-type: none"> • 0 V - 3 V (Input 1) • 0 V - 10 V (Input 2)
Outputs	4 x digital outputs (higher power): <ul style="list-style-type: none"> • OUT1, OUT2, OUT3, OUT4 • Non isolated • Maximum output current 100 mA 1 x digital outputs: <ul style="list-style-type: none"> • OUT5 • Non isolated • Sink up to 8mA 1 x relay output: <ul style="list-style-type: none"> • OMRON G5V-1 5DC • Max current 1 A • Max voltage: <ul style="list-style-type: none"> • 24 V (DC) • 125 V (AC) Other outputs : <ul style="list-style-type: none"> • Loudspeaker: 8 ohm/2 W
Temperature	-20 °C to +50 °C
Size	137 mm x 137 mm x 24 mm (5.4 in x 5.4 in x 0.94 in)
Size with enclosure	143 mm x 143 mm x 30 mm (5.6 in x 5.6 in x 1.19 in)
Weight	180 g (6.35 oz)
Weight with enclosure	510 g (18.4 oz)

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Specifications of AdvanReader-60 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-60 with two ports

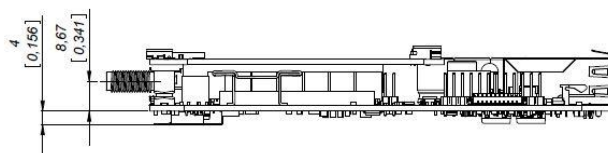
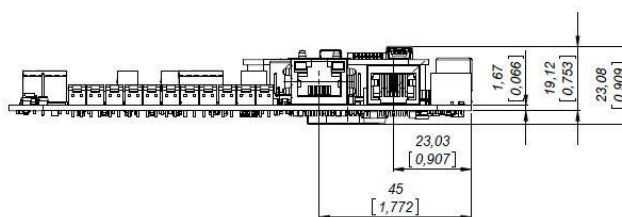
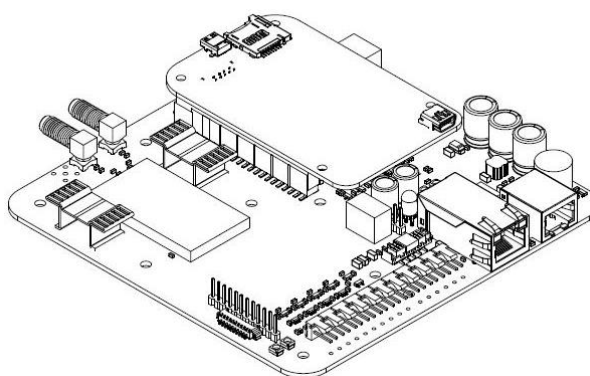
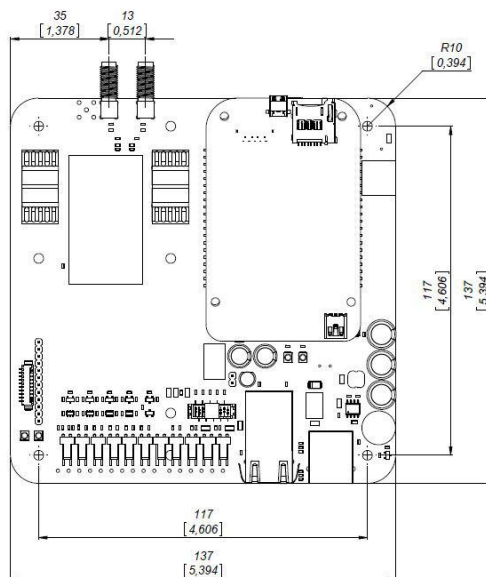
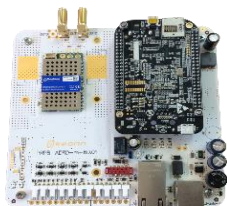
RF connections	Two 50 ohm SMA connectors for monostatic antennas
RF Power	Programmable from 0 dBm to 30 dBm in 0.5 dBm steps (Maximum power may have to be reduced to meet regulatory limits)
Max tag read throughput	Up to 50 tags/second
Power consumption	Idle consumption < 3 W Max consumption (@30dBm)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

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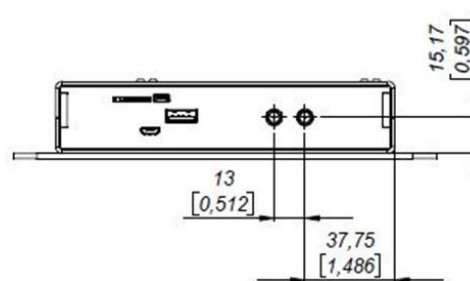
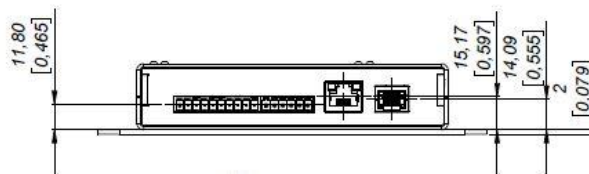
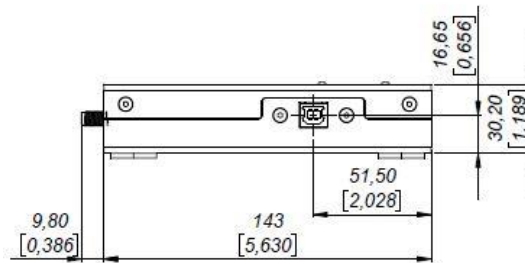
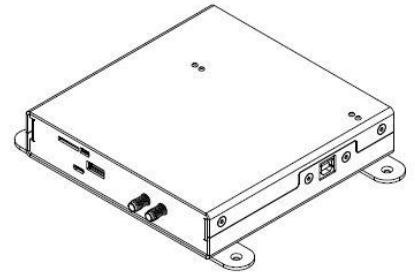
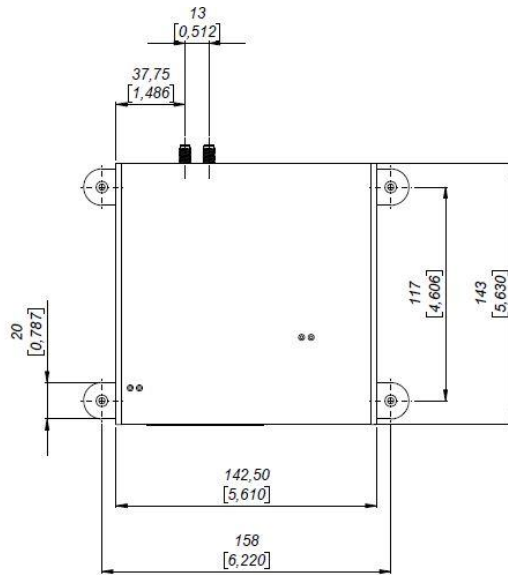
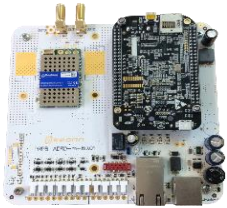
Mechanical specifications without enclosure:



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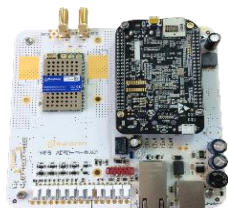
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Mechanical specifications



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Product codes for ordering

ADRD	-	mx	-	e	CT	-	sc	
								mx = number of ports
		m1						1 port
		m2						2 ports
								e = enclosure
				-				no enclosure
				e				with enclosure
								CT = connector type
					SMA			SMA Straight PCB mount
								sc = series code
							60	Serie 60

Examples:

- **ADRD-m1-SMA-60:**
 - Advanreader
 - With 1 port
 - Without enclosure
 - SMA connector type
 - Model **60**

- **ADRD-m2-eSMA-60:**
 - Advanreader
 - With 2 ports
 - With enclosure
 - SMA connector type
 - Model **60**

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