

AdvanReader-60™

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



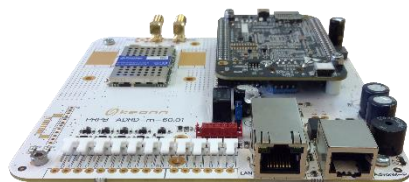
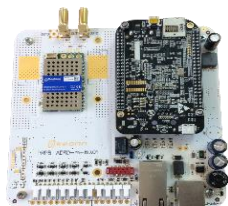
Product overview

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

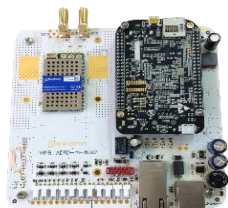
Applications:

- 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 |
| | • 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: |
| | • 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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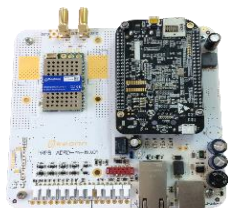
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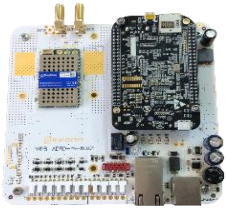


Common electrical, communication and mechanical specifications of all AdvanReader-60 models:

| | |
|--------------------------------|--|
| 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

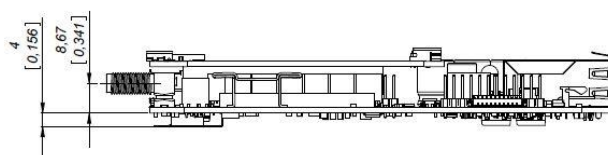
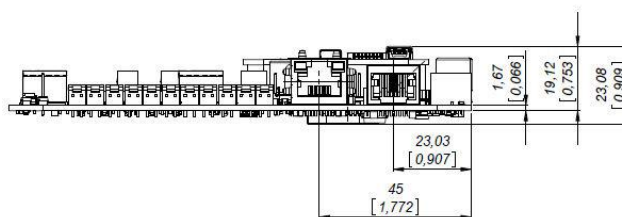
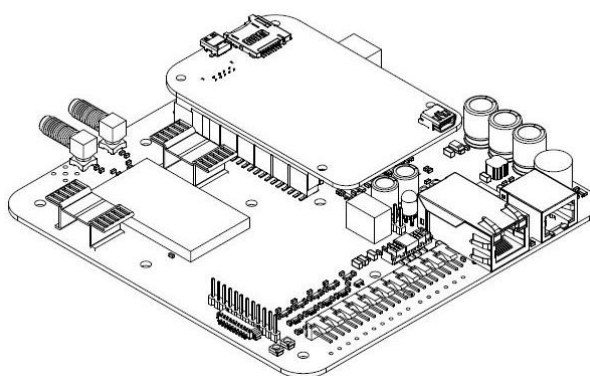
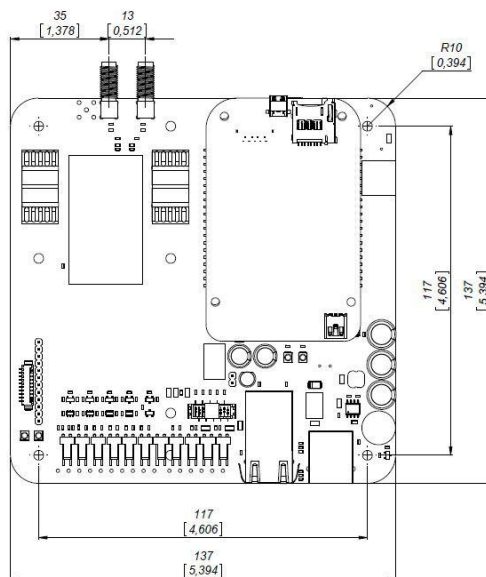
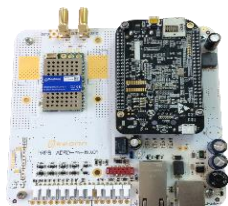
| | |
|-------------------------|--|
| RF connections | Two 50 ohm SMA connectors for monostatic antennas |
| RF Power | Programmable from 0 dBm to 30 dBm in 0.5 dBm steps (Maximum power may have to be reduced to meet regulatory limits) |
| Max tag read throughput | Up to 50 tags/second |
| Power consumption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

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Mechanical specifications without enclosure:

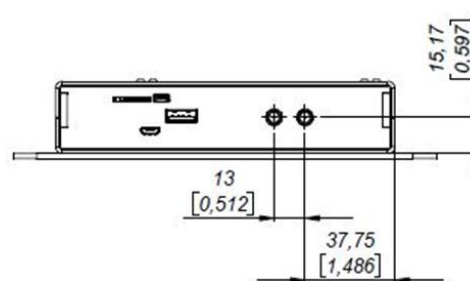
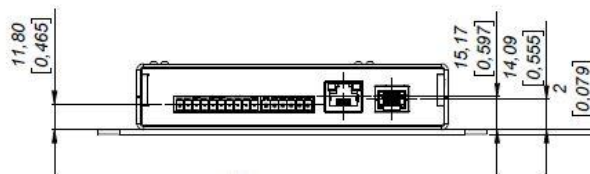
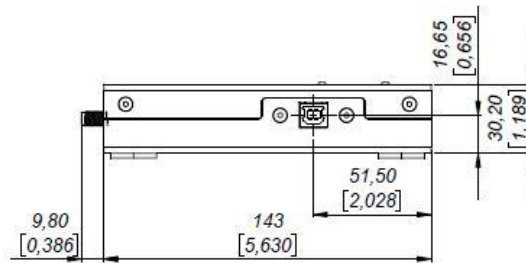
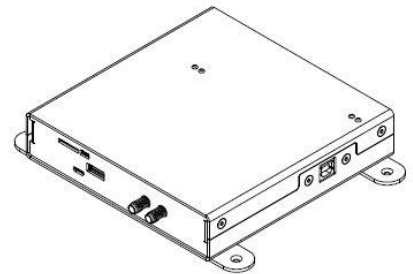
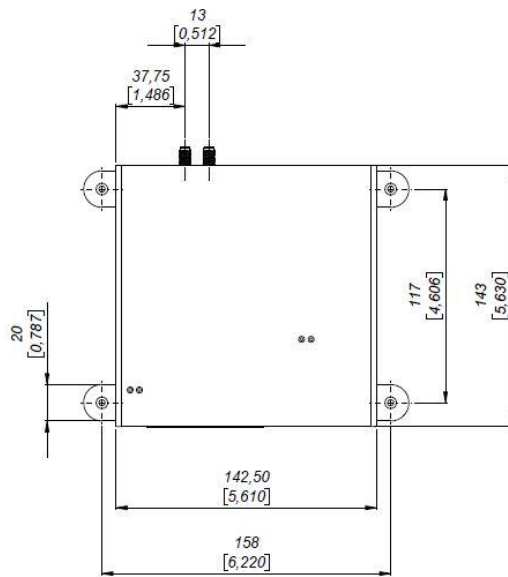


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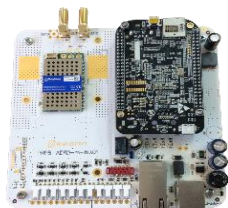


Mechanical specifications



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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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