DRP-A100 Series

DIN-rail computers with Elkhart Lake Intel Atom® X Series processor base model and high-interface models

Features and Benefits

- DIN-rail mountable computers with fanless design

- Intel Atom® x6211E dual-core 1.30 GHz or x6425E quad-core 2.0 GHz processor

- Rich interface options for up to 8 serial and 10 LAN ports

- Compact size to fit most field applications

- -30 to 60°C operating temperature range
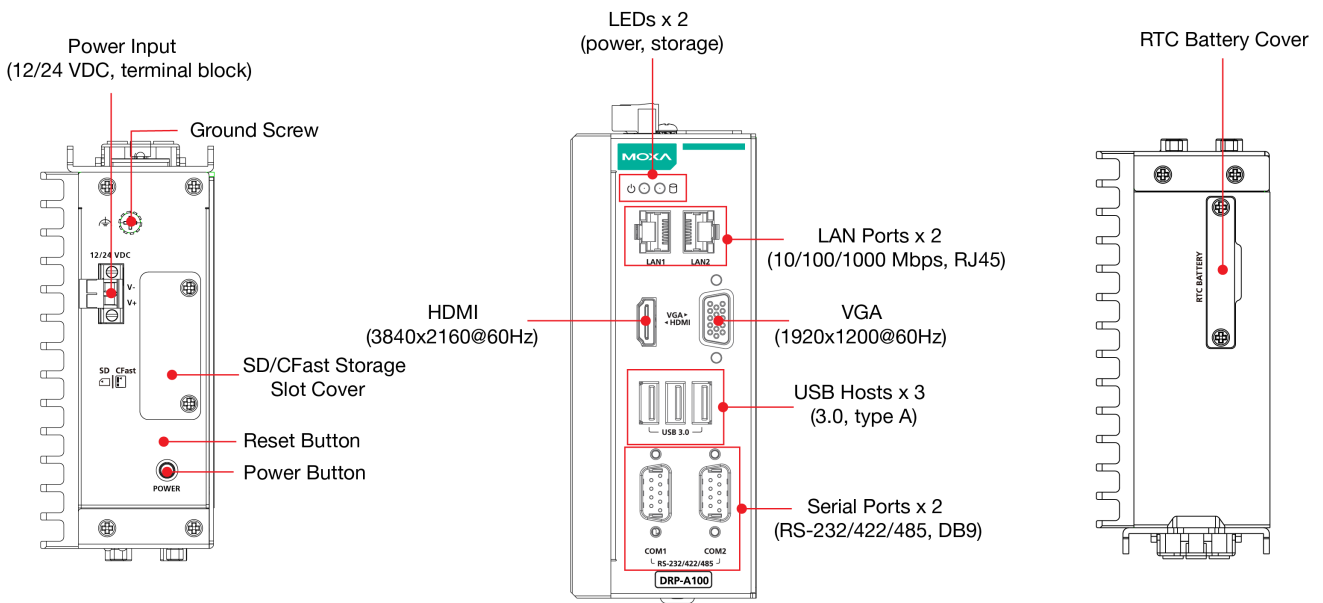
Certifications

Introduction

The DRP-A100 Series DIN-rail mountable computers are powered by either an Intel Atom® x6211E dual-core 1.30 GHz or an Intel Atom® x6425E quad-core 2.0 GHz processor. The computers come with a rich set of interface options including up to 8 software-selectable RS-232/422/485 serial ports and up to 10 gigabit Ethernet ports. The communication interfaces are located on the front and rear sides of the product, enabling easy access and expansion for industrial applications. A dual-storage design that includes CFast and SD slots enables easy storage expansion. A unique battery-fastener cover secures the battery in place and ensures stability in all operating environments while a trap-door design for the battery slot enables easy battery swapping without having to remove the cover. The DRP-A100 Series is a reliable, durable, and versatile yet user-friendly computing platform for industrial applications.
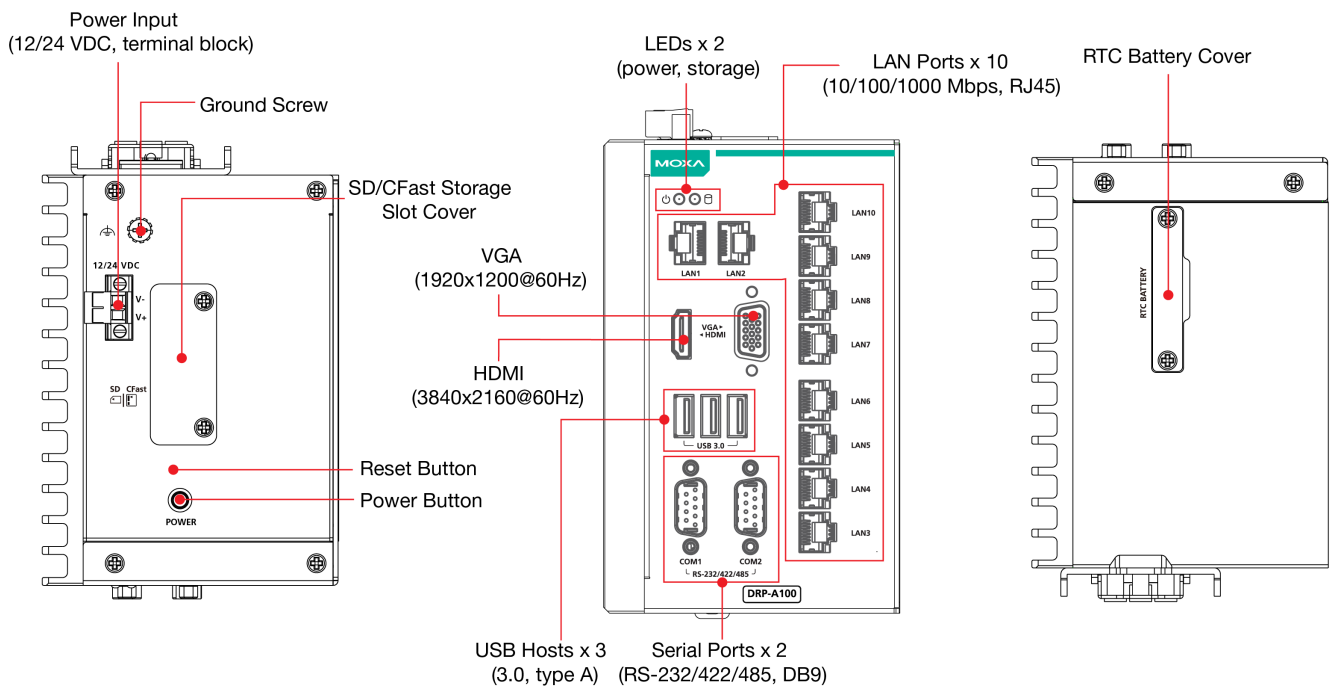
The DRP-A100 compact computers come in a fanless design and can withstand a temperature range of -30 to 60°C, making them a good fit for harsh operating environments. The built-in TPM 2.0 module secures the platform from unauthorized access. The DRP-A100 Series is an intelligent computing solution that perfectly fulfills both OT and IT requirements of industrial environments.
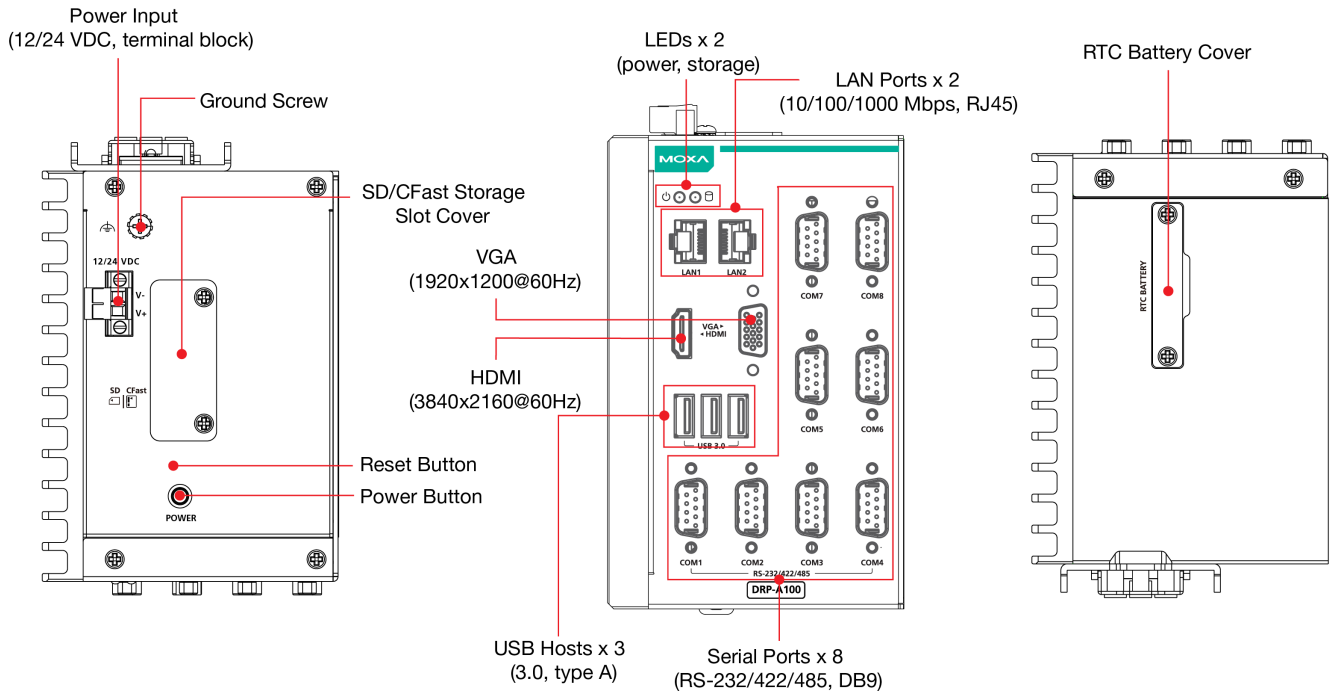
Appearance

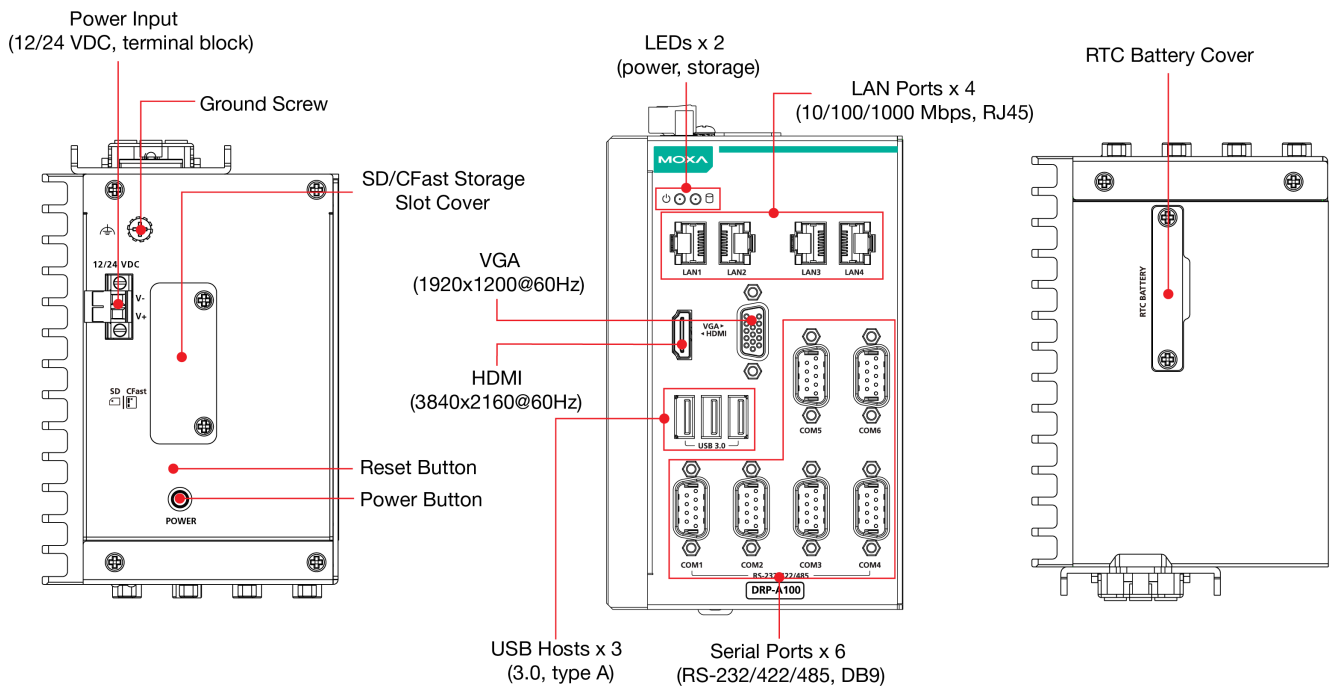## DRP-A100-E2-T/DRP-A100-E4-T/DRP-A100-E2-T-Win10/DRP-A100-E4-T-Win10 Models

Power Input
(12/24 VDC, terminal block)

Ground Screw

SD/CFast Storage
Slot Cover

Reset Button

Power Button

LEDs x 2
(power, storage)

LAN Ports x 2
(10/100/1000 Mbps, RJ45)

HDMI
(3840x2160@60Hz)

VGA
(1920x1200@60Hz)

USB Hosts x 3
(3.0, type A)

Serial Ports x 2
(RS-232/422/485, DB9)

RTC Battery Cover

DRP-A100-E2-8L-T/DRP-A100-E4-8L-T Models

Power Input
(12/24 VDC, terminal block)

Ground Screw

SD/CFast Storage
Slot Cover

VGA
(1920x1200@60Hz)

HDMI
(3840x2160@60Hz)

Reset Button

Power Button

LEDs x 2
(power, storage)

LAN Ports x 10
(10/100/1000 Mbps, RJ45)

RTC Battery Cover

USB Hosts x 3
(3.0, type A)

Serial Ports x 2
(RS-232/422/485, DB9)

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DRP-A100-E2-6C-T/DRP-A100-E4-6C-T Models

Power Input
(12/24 VDC, terminal block)

Ground Screw

SD/CFast Storage Slot Cover

LEDs x 2
(power, storage)

LAN Ports x 2
(10/100/1000 Mbps, RJ45)

RTC Battery Cover

VGA
(1920x1200@60Hz)

HDMI
(3840x2160@60Hz)

Reset Button

Power Button

USB Hosts x 3
(3.0, type A)

Serial Ports x 8
(RS-232/422/485, DB9)

DRP-A100-E2-2L4C-T/DRP-A100-E4-2L4C-T Models

Power Input
(12/24 VDC, terminal block)

Ground Screw

SD/CFast Storage Slot Cover

LEDs x 2
(power, storage)

LAN Ports x 4
(10/100/1000 Mbps, RJ45)

RTC Battery Cover

VGA
(1920x1200@60Hz)

HDMI
(3840x2160@60Hz)

Reset Button

Power Button

USB Hosts x 3
(3.0, type A)

Serial Ports x 6
(RS-232/422/485, DB9)

Specifications

Computer

CPU	DRP-A100-E2 Models: Intel Atom® x6211E Processor (Dual core, 1.5M Cache, 1.30 GHz) DRP-A100-E4 Models: Intel Atom® x6425E Processor (Quad core, 1.5M Cache, 2.00 GHz)
System Memory Slot	SODIMM DDR4 slots x 1, up to 32 GB max.

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System Memory Pre-installed	8 GB DDR4
Storage Slot	CFast slot x 1 (SATAIII interface) SD slots x 1, SD 3.0 interface (SDHC/SDXC)
Storage Pre-installed	DRP-A100-E2-T-Win10: 64-GB CFast card DRP-A100-E4-T-Win10: 64-GB CFast card
Supported OS	Windows Images and Drivers Supported: - Windows 10 IoT Ent LTSC 2021 64-bit - Windows 11 Professional 64-bit Linux Drivers Supported: - Debian 11 (Kernel 5.10) - Ubuntu 22.04 LTS (Kernel 5.15) - RHEL 9 (Kernel 5.14)
Graphics Controller	Intel® UHD Graphics

Computer Interface

Ethernet Ports	DRP-A100-E2-T/E2-T-Win10/E2-6C-T/E4-T/E4-T-Win10/E4-6C-T: Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2 DRP-A100-E2-2L4C-T/E4-2L4C-T: Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 4 DRP-A100-E2-8L-T/E4-8L-T: Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 10
Serial Ports	DRP-A100-E2-T/E2-T-Win10/E2-8L-T/E4-T/E4-T-Win10/E4-8L-T: RS-232/422/485 ports x 2, software selectable (DB9 male) x 2 DRP-A100-E2-2L4C-T/E4-2L4C-T: RS-232/422/485 ports x 6, software selectable (DB9 male) x 6 DRP-A100-E2-6C-T/E4-6C-T: RS-232/422/485 ports x 8, software selectable (DB9 male) x 8
USB 3.0	USB 3.0 hosts x 3, type-A connectors
TPM	TPM v2.0
Video Output	HDMI 2.0b x 1, (type A connector) VGA x 1, 15-pin D-sub connector (female)
Buttons	Reset button Power button

Ethernet Interface

Magnetic Isolation Protection	1.5 kV (built-in)

Serial Interface

Baudrate	50 bps to 115.2 kbps
Connector	DB9 male
Data Bits	5, 6, 7, 8
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
Flow Control	RTS/CTS, XON/XOFF

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND

RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

LED Indicators

System	Power x 1 Storage x 1
LAN	2 per port (10/100/1000 Mbps)

Power Parameters

Input Voltage	12/24 VDC
Power Connector	Screw-fastened Euroblock terminal
Power Consumption	50 W

Physical Characteristics

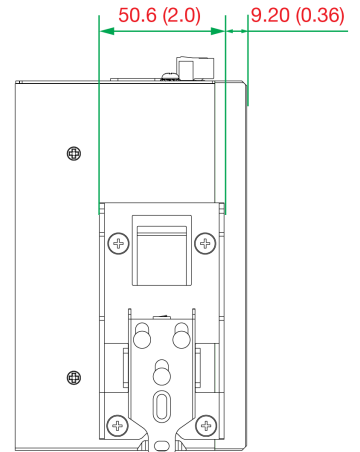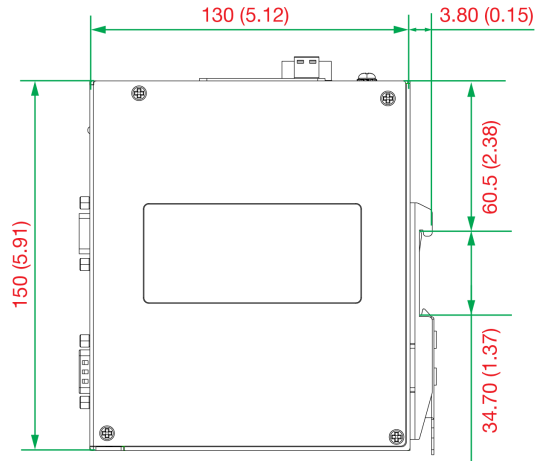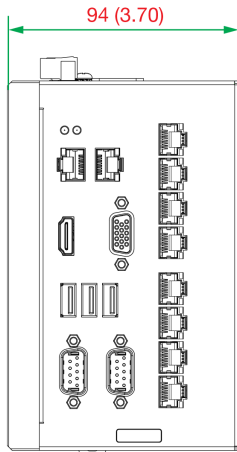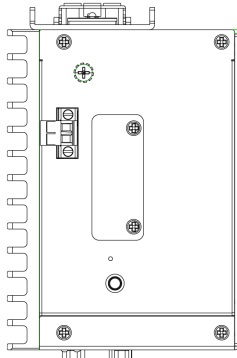| Housing	Metal
IP Rating	IP20
Dimensions	DRP-A100-E2-T/E2-T-Win10/E4-T/E4-T-Win10: 60 x 130 x 150 mm (2.36 x 5.12 x 5.91 in) DRP-A100-E2-8L-T/E2-6C-T/E2-2L4C-T/E4-8L-T/E4-6C-T/E4-2L4C-T: 94 x 130 x 150 mm (3.70 x 5.12 x 5.91 in)
Weight	DRP-A100-E2-T/E2-T-Win10/E4-T/E4-T-Win10: 1,213 g (2.67 lb) DRP-A100-E2-8L-T/E2-6C-T/E2-2L4C-T/E4-8L-T/E4-6C-T/E4-2L4C-T: 1.612 g (3.55 lb)
Installation	DIN-rail mounting

Declaration

Green Product	RoHS, CRoHS, WEEE

Environmental Limits

Operating Temperature	-30 to 60°C (-22 to 140°F)
Storage Temperature	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 0.5 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 0.5 kV, Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF: 1 A/m at 50 to 60 Hz
Safety	UL 62368-1 (CB) BSMI
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-64

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Package Drop Test	ISTA 1A
Package Vibration Test	ISTA 1A

Reliability

Time Source	Built-in RTC (real-time clock) with lithium-battery backup
Automatic Reboot Trigger	Built-in WDT

MTBF

Time	566,300 hrs
Standards	Telcordia (Bellcore), GB

Warranty

Warranty Period	3 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x DRP-A100 Series computer with DIN-rail ears attached
Installation Kit	1 x terminal block, 2-pin, for DC power
Documentation	1 x quick installation guide 1 x warranty card

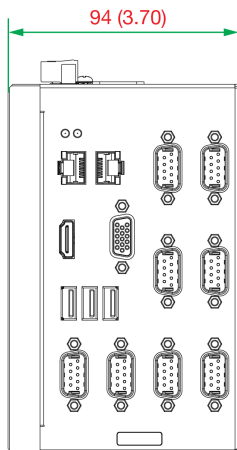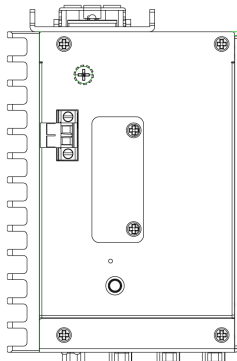## Dimensions

DRP-A100-E2-T/E2-T-Win10/E4-T/E4-T-Win10

Unit: mm (inch)
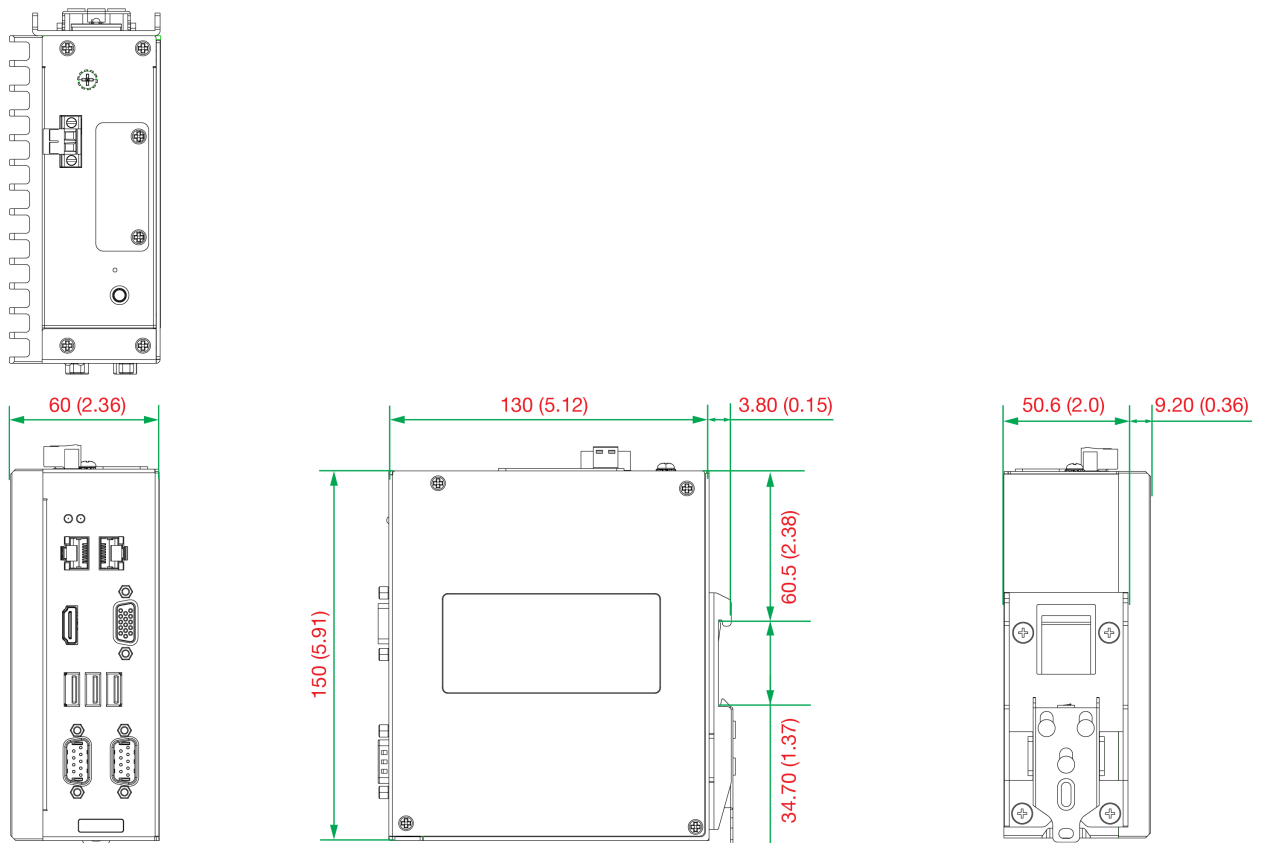
DRP-A100-E2-8L -T/E4-8L-T

Unit: mm (inch)

94 (3.70)

130 (5.12)   3.80 (0.15)

150 (5.91)

60.5 (2.38)

34.70 (1.37)

50.6 (2.0)   9.20 (0.36)

DRP-A100-E2-6C-T/E4-6C-T

Unit: mm (inch)

94 (3.70)

130 (5.12)   3.80 (0.15)

150 (5.91)

60.5 (2.38)

34.70 (1.37)

50.6 (2.0)   9.20 (0.36)
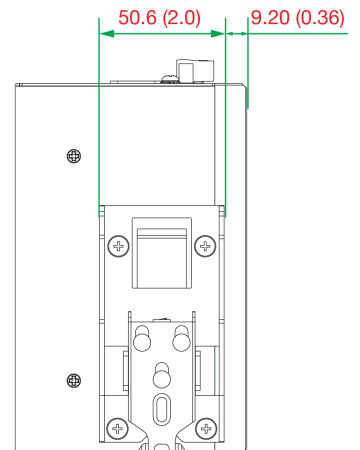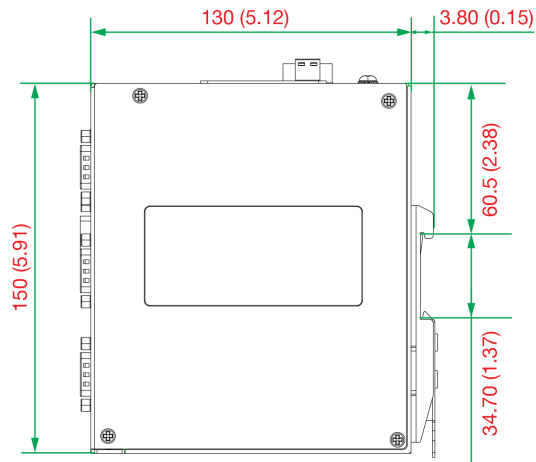
DRP-A100-E2-2L4C-T/E4-2L4C-T

Unit: mm (inch)
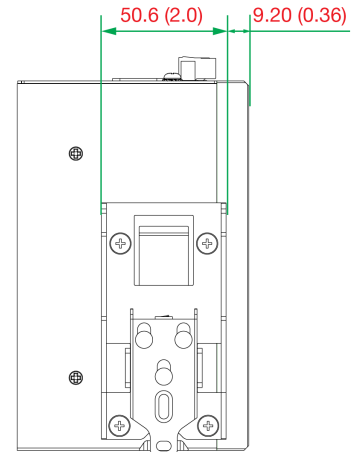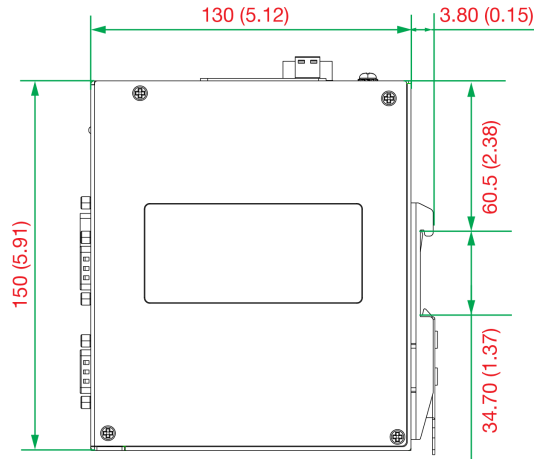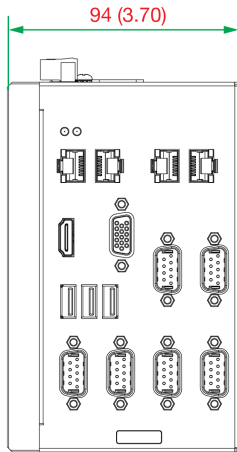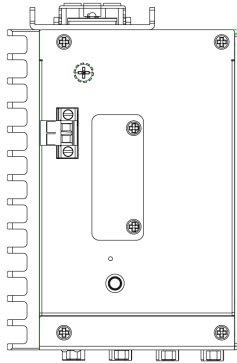
Ordering Information

Model Name	CPU	Memory	Storage Slots	OS Preinstalled	LAN/Serial	USB 3.0	Video Outputs	Power Input
DRP-A100-E2-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	–	2/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E2-T-Win10	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	Win 10 LTSC 64-GB, CFast	2/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E2-8L-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	–	10/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E2-6C-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	–	2/8	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E2-2L4C-T	Intel Atom® x6211E	8 GB	1 x CFast 1 x SD	–	4/6	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E4-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	–	2/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E4-T-Win10	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	Win 10 LTSC 64-GB CFast	2/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E4-8L-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	–	10/2	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E4-6C-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	–	2/8	3	1 x VGA 1 x HDMI	12/24 VDC
DRP-A100-E4-2L4C-T	Intel Atom® x6425E	8 GB	1 x CFast 1 x SD	–	4/6	3	1 x VGA 1 x HDMI	12/24 VDC

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