

DRP Series Quick Installation Guide

Version 2.0, April 2025

Technical Support Contact Information
www.moxa.com/support

MOXA®

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P/N: 1802001004020



Overview

The DRP Series DIN-rail computers are powered by an Intel Atom®, Intel® Celeron®, or Intel® Core™ i5/i7 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. The unique battery fastener cover design for the battery slot secures the battery in place and ensures stability in all operating environments.

Designed as compact fanless computers with operating temperature range of -30 to 60°C and built-in TPM 2.0 module, the DRP computers are ideal as reliable and secure computing platforms for both IT/OT applications in extreme operating environments.

Package Checklist

Before installing the DRP Series, verify that the package contains the following items:

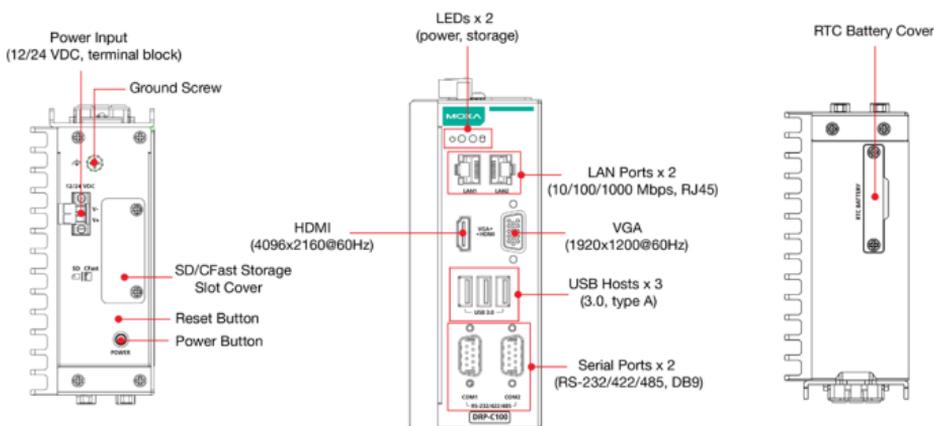
- DRP Series computer with DIN-rail bracket attached
- 2-pin terminal block for DC power
- Quick installation guide (printed)
- Warranty card

NOTE Please notify your sales representative if any of the above items are missing or damaged.

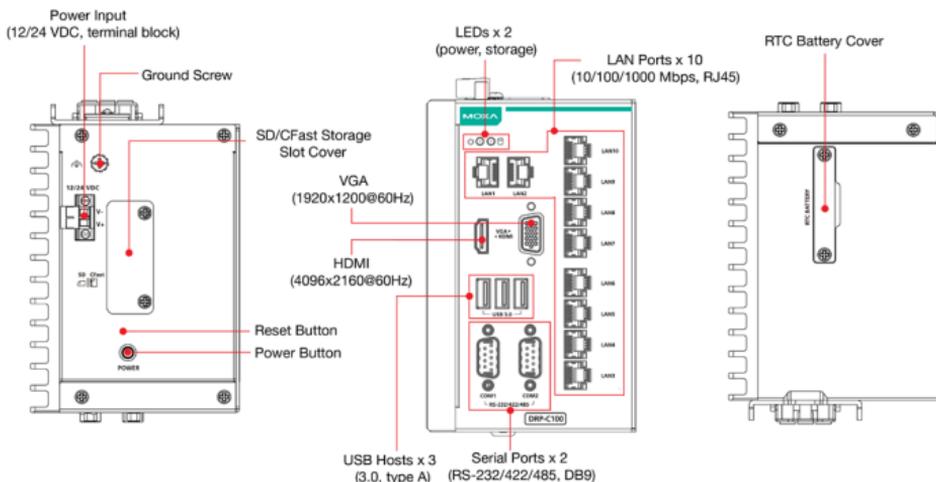
Panel Layouts

The panel layouts of the DRP Series computers are shown below:

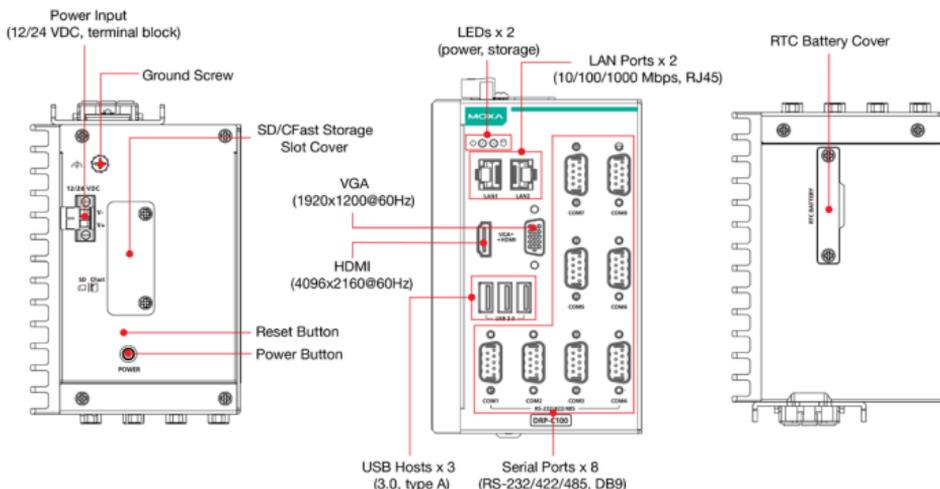
DRP-C100-T/C1-T/C5-T/C7-T/C1-T-Win10/C5-T-Win10/C7-T-Win10 Models



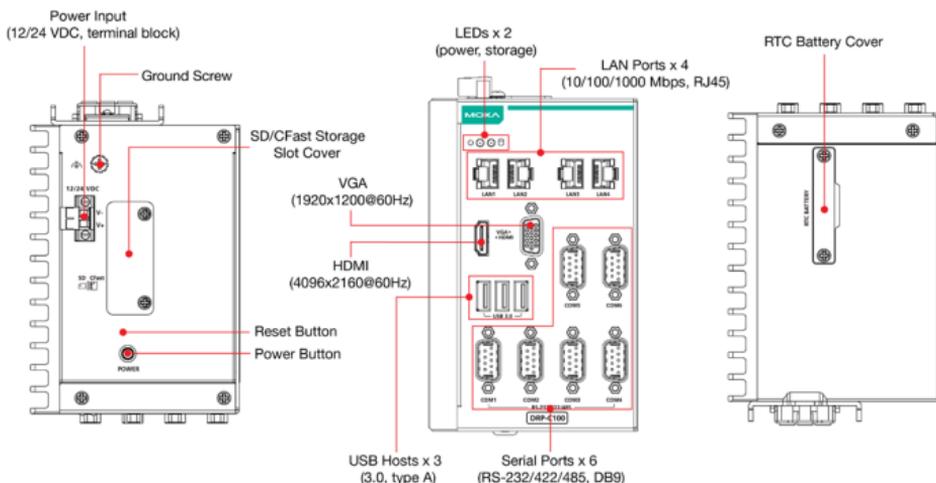
DRP-C100-L-T/C1-8L-T/C5-8L-T/C7-8L-T Models



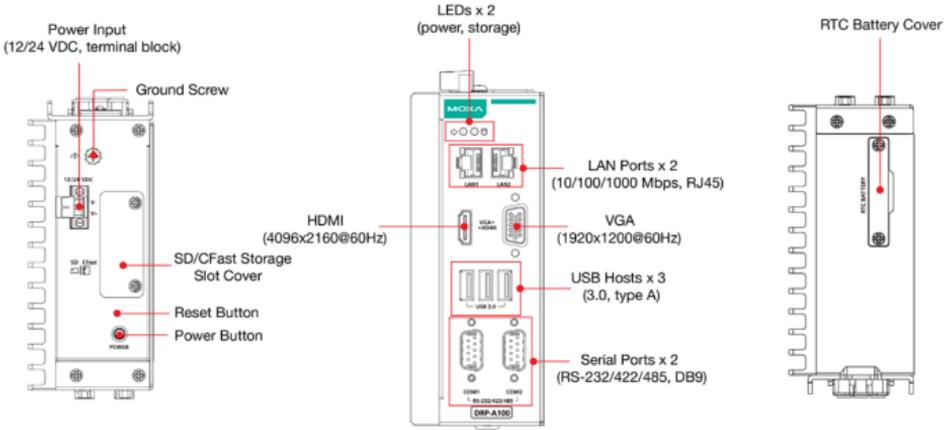
DRP-C100-C-T/C1-6C-T/C5-6C-T/C7-6C-T Models



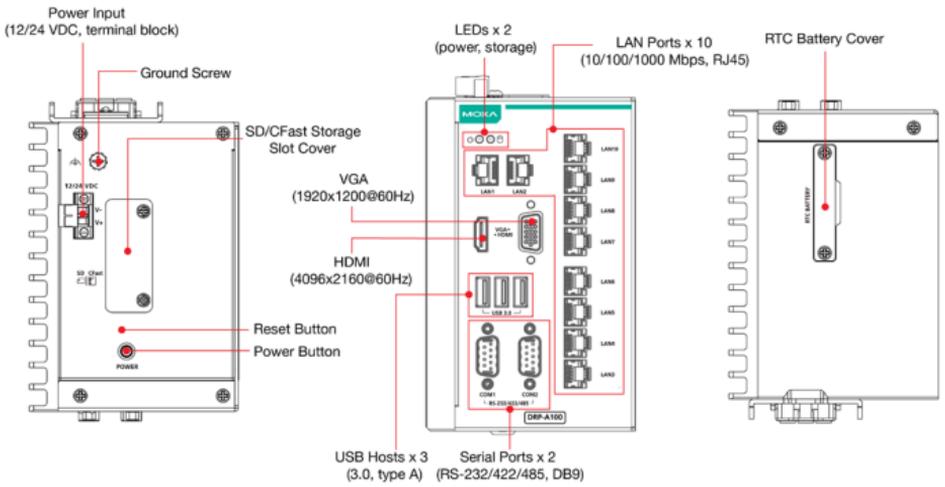
DRP-C100-C1-2L4C-T/C5-2L4C-T/C7-2L4C-T Models



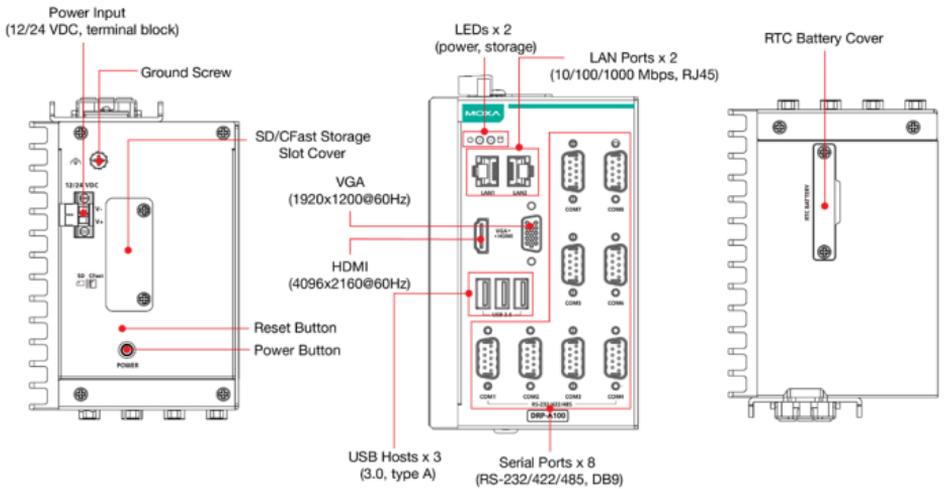
DRP-A100-T/E2-T/E4-T/E2-T-Win10/E4-T-Win10 Models



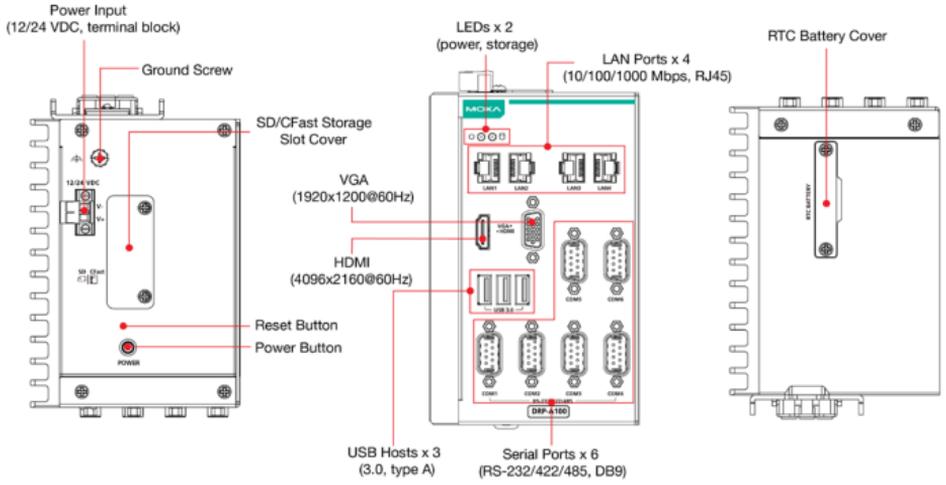
DRP-A100-L-T/DRP-A100-E2-8L-T/E4-8L-T Models



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



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

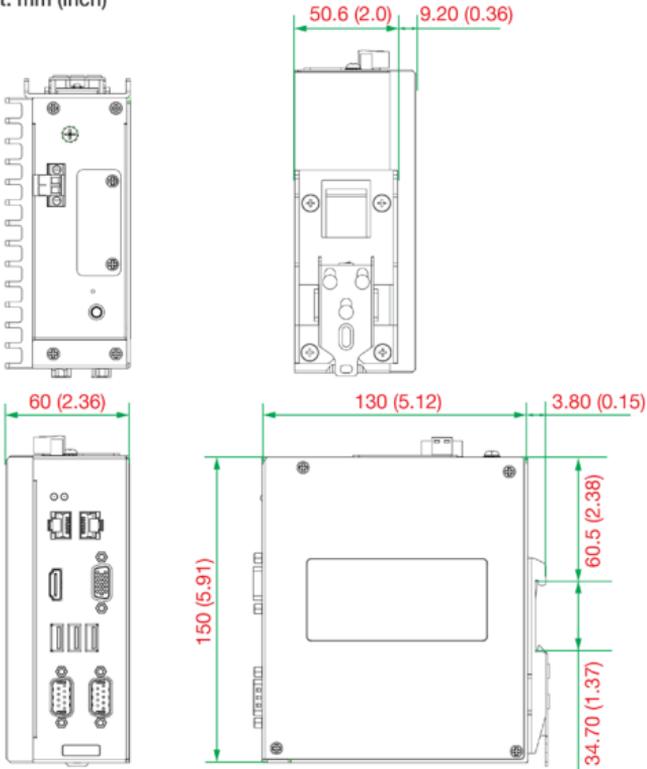


Dimensions

DRP-C100-T/C1-T/C5-T/C7-T/C1-T-Win10/C5-T-Win10/C7-T-Win10 Models

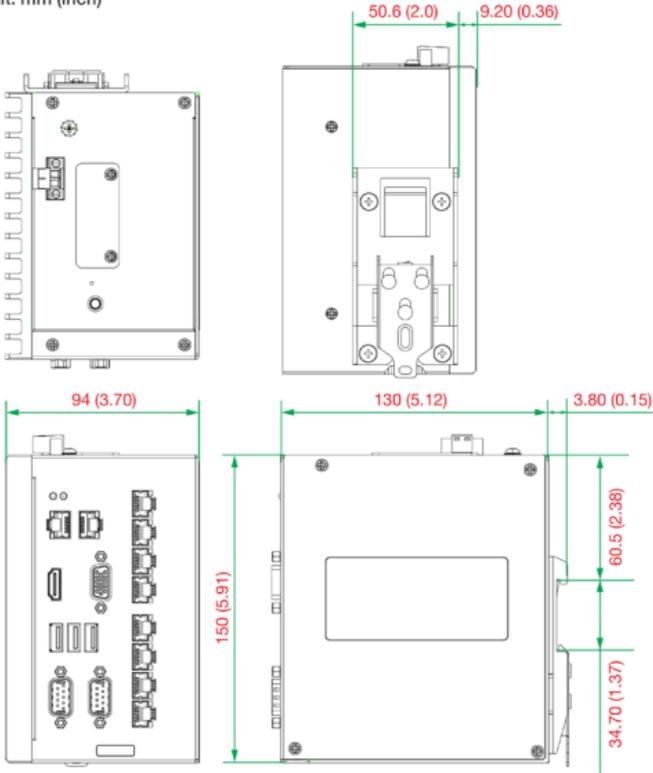
DRP-A100-T/E2-T/E4-T/E2-T-Win10/E4-T-Win10 Models

Unit: mm (inch)



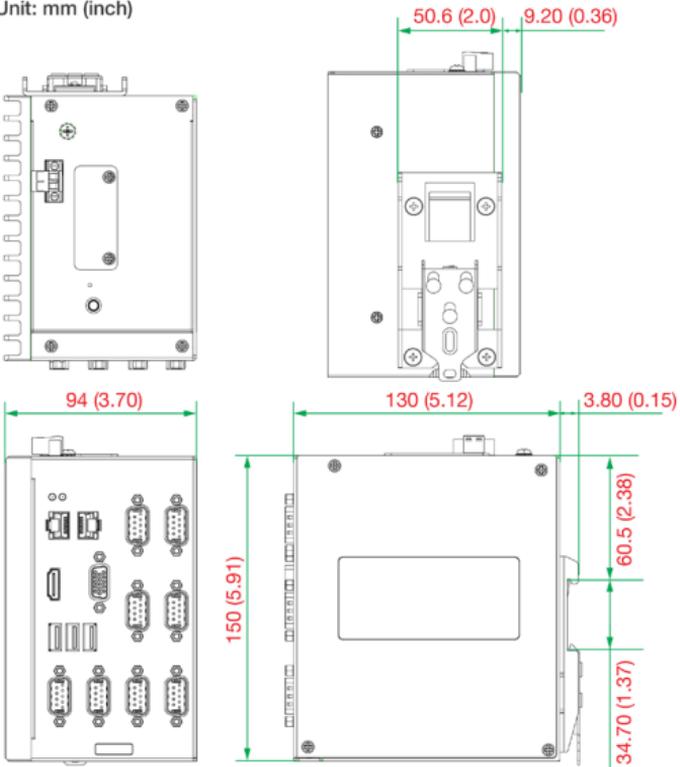
DRP-C100-L-T/DRP-C100-C1-8L-T/C5-8L-T/C7-8L-T Models
DRP-A100-L-T/DRP-A100-E2-8L-T/ E4-8L-T Models

Unit: mm (inch)



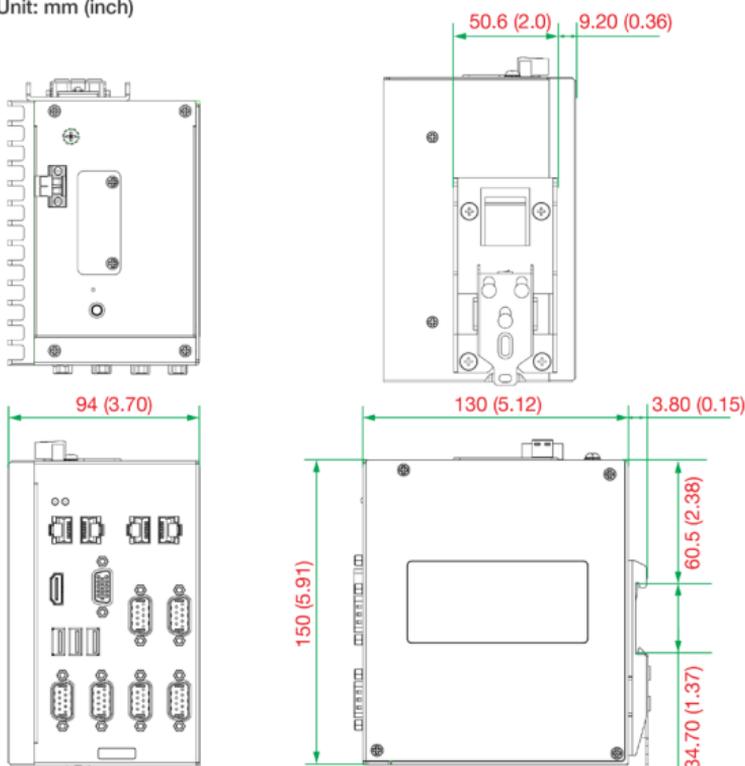
DRP-C100-C-T/C1-6C-T/C5-6C-T/C7-6C-T Models
DRP-A100-C-T/DRP-A100-E2-6C-T/ E4-6C-T Models

Unit: mm (inch)



DRP-C100-C1-2L4C-T/C5-2L4C-T/C7-2L4C-T Models
DRP-A100-E2-2L4C-T/E4-2L4C-T Models

Unit: mm (inch)



LED Indicators

The following table describes the LED indicators located on the front panel of the DRP Series:

LED Name	Status	Function
Power	Green	Power is ON
	OFF	No power input or any other power error
Ethernet (10/100 Mbps) (1000 Mbps)	Green	Steady ON: 10/100 Mbps Ethernet link Blinking: Data is being transmitted or received
	Yellow	Steady ON: 1000 Mbps Ethernet link Blinking: Data is being transmitted or received
	OFF	No Ethernet connection
Storage (CFast)	Yellow	Blinking: Data is being accessed from the CFast card
	OFF	Data is not being accessed from the CFast card

Installing the DRP Computer

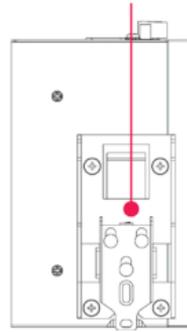
DIN-rail Mounting

The DRP computers come with a DIN-rail bracket attached. To install the computers on to a DIN rail, do the following:

STEP 1:

Check the DIN-rail bracket that comes preinstalled on the rear panel of the DRP computers.

DIN-rail Mounting Kit

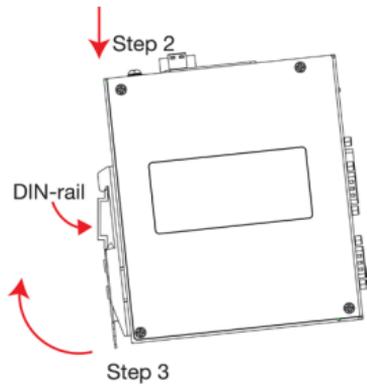


STEP 2:

Insert the top of the DIN rail into the slot just below the upper hook of the DIN-rail mounting bracket.

STEP 3:

Press the DRP computer towards the DIN rail until the mounting bracket snaps into place.



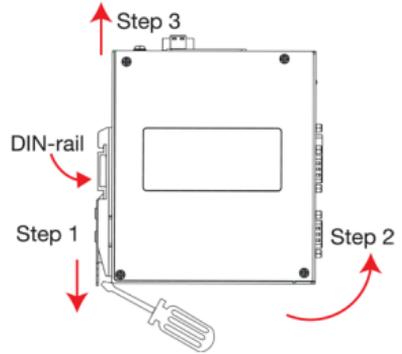
Removal:

STEP 1:

Pull down the latch on the mounting bracket with a screwdriver.

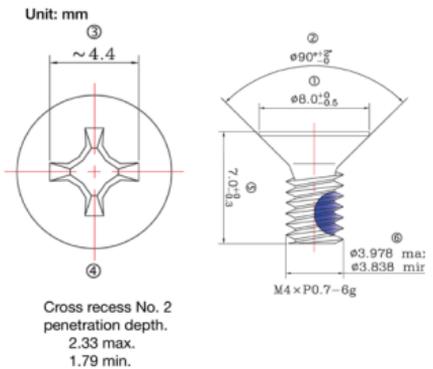
STEP 2 & 3:

Slightly pull the DRP computer forward and lift it up to unmount it from the DIN rail.



The specifications of the DIN-rail bracket mounting screws are shown in the illustration on the right.

Adhere to these values if you need to buy replacement screws to attach and secure the DIN-rail bracket to the rear panel of the computer.

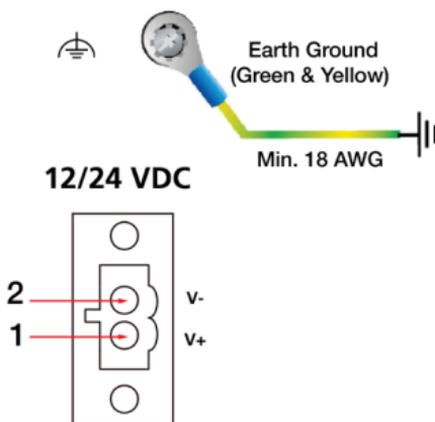


NOTE This computer is intended to be installed only in an area with restricted access. In addition, for safety reasons, the computer should be installed and handled only by qualified and experienced professionals.

Connecting the Power

The DRP computers are provided with 2-pin power input connectors in a terminal block on the front panel. Insert the power-cord wires into the connectors and tighten them to secure the wires in place. Plug in the power cable to a power source. The power LED will light up to indicate that power is being supplied to the computer. It should take about 30 to 60 seconds for the operating system to complete the boot-up process.

Pin	Definition
1	V+
2	V-



ATTENTION

This product is intended to be supplied by a Listed Power Supply with output marked LPS and rated to deliver the following power specifications:

- DRP-C100: 12 VDC @ 6.82 A, 24 VDC @ 3.25 A
- DRP-A100: 12 VDC @ 5 A, 24 VDC @ 2.5 A

and a minimum $T_{ma}=60^{\circ}\text{C}$. If you need assistance with purchasing a power adapter, contact the Moxa technical support team.



ATTENTION

Before connecting the DRP computer to the DC power input, ensure that the DC power source voltage is stable.

- The wiring for the input terminal block must be installed by qualified and experienced professionals.
 - Wire Type: Cu, FW2
 - Use 18-12 AWG wire size and a torque value of 0.51 N-m
- Use only one conductor in a clamping point between the DC power source and the power input.

NOTE If using Class I adapter, the power cord adapter should be connected to a socket outlet with an earthing connection or the power cord and adapter must comply with Class II construction.

NOTE For surge protection, connect the grounding connector located below the power connector with the earth (ground) or a metal surface.

A 4 mm² conductor must be used when the connection to the external grounding screw is utilized. The heat sink is grounded to the chassis by an internal screw.



WARNING: Hot Surface

External metal parts of this equipment are hot!!

Before touching the equipment, you must take special precautions to protect your hands and body from serious injury.



WARNING

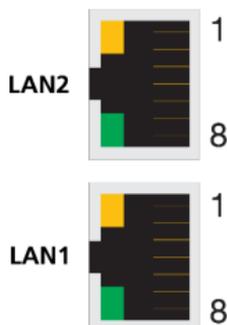
為避免電磁干擾，本產品不應安裝或使用於住宅環境。

Communications Connections

Ethernet Ports

The 10/100/1000 Mbps Ethernet ports use RJ45 connectors.

Pin	10/100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	-	TRD(2)+
5	-	TRD(2)-
6	ERx-	TRD(1)-
7	-	TRD(3)+
8	-	TRD(3)-

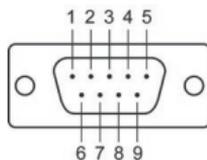


NOTE For reliable Ethernet connections, we recommend enabling the ports in standard temperatures and keeping them enabled in high/low temperature environment.

Serial Ports

The serial ports use DB9 connectors. Each port can be configured by software as a RS-232, RS-422, or RS-485 port. The pin assignments for the ports are shown below:

Pin	RS-232	RS-422	RS-485 (4-wire)	RS-485 (2-wire)
1	DCD	TxDA(-)	TxDA(-)	-
2	RxD	TxDB(+)	TxDB(+)	-
3	TxD	RxDB(+)	RxDB(+)	DataB(+)
4	DTR	RxDA(-)	RxDA(-)	DataA(-)
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-



USB Hosts

The DRP Series has 3 USB 3.0 Type-A connectors located on the front panel. The ports support keyboard and mouse devices and can also be used to connect a flash disk for storing large amounts of data.

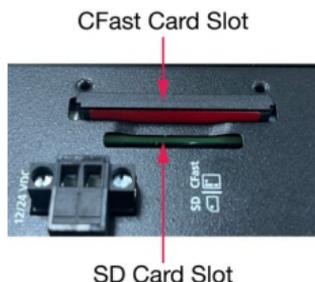
Inserting SD/CFast Card

The DRP computer comes with two slots that allow users to insert one SD card and one CFast card. To install the cards, do the following:

1. Unfasten the two screws on the slot cover.



2. Remove the cover and find the location of the SD and CFast card slots.



3. Insert the SD and CFast cards in the designated slots. Refer to the image printed beside the slots for the correct direction to insert the cards. When the cards are successfully inserted, you will hear a click.
4. To remove the cards, simply push them in to release them and take them out.

Connecting Displays

The DRP computer comes with a VGA and a HDIM display output located on the front panel for connecting to audio or video devices.

NOTE Use an HDMI-certified cables for a reliable audio or video connection.

Replacing the Battery

The DRP computer comes with one slot for a battery on the bottom panel of the computer. A lithium battery (3 V / 200 mAh) is preinstalled in the slot.



WARNING

EXPLOSION HAZARD

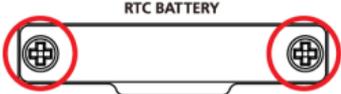
- Do not remove or replace batteries unless the power has been disconnected and the area is free of ignitable concentrations.
- To reduce the risk of fire or burns, do not disassemble, crush, or puncture the battery; do not dispose of it in fire or water and do not short external contacts.
- RTC batteries should only be replaced or installed in a non-hazardous location.
- Be sure to use the correct type of battery. Incorrect batteries may cause system damage. Contact Moxa's technical support staff for assistance, if necessary.
- The RTC must only be replaced with Panasonic battery type BR2032*, BR-2032*, BR2032, or BR-2032.

警告

更換不正確之電池形式會有爆炸的風險，請依製造商說明書處理用過之電池。

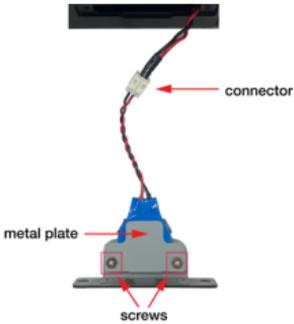
To replace the battery, do the following:

1. Unfasten the two screws on the battery cover.



2. Take off the cover.

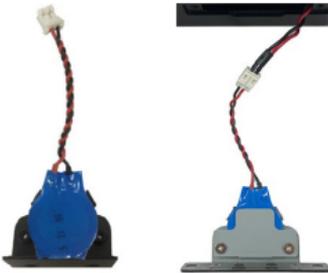
The battery is attached to the slot cover as indicated in the image.



3. Unplug the connector of the battery-cover assembly from the internal wire of the slot.
4. Remove the two screws on the metal plate attached to the battery holder.



5. Place a new battery in the battery holder, replace the metal plate, and fasten the two screws on to the frame to secure the battery.



6. Plug in the connector of the battery-cover assembly to the internal wire of the slot.
7. Place the battery holder back in the slot and secure it by fastening the two screws on the cover.

Hazardous Location Specifications

DRP-A100 Series

Trade Mark:	MOXA[®]
Model/Rating:	<p>Model Names:</p> <ul style="list-style-type: none"> • DRP-A100-E2-T • DRP-A100-E2-T-Win10 • DRP-A100-E2-8L-T • DRP-A100-E2-6C-T • DRP-A100-E2-2L4C-T • DRP-A100-E4-T • DRP-A100-E4-T-Win10 • DRP-A100-E4-8L-T • DRP-A100-E4-6C-T • DRP-A100-E4-2L4C-T <p>Rating:</p> <ul style="list-style-type: none"> • 12 VDC, 5 A or 24 VDC, 2.5 A <p>Relay Output:</p> <ul style="list-style-type: none"> • 24 VDC, 1 A resistive
ATEX information:	 <p>II 3G Ex ec IIC T4 Gc UL 24 ATEX 3317X Ambient Range : -30°C ≤ Tamb ≤ +60°C Rated Cable Temp ≥ 90°C</p>
IECEX Certificate No.:	IECEX UL 24.0094X
Standards Covered:	IEC 60079-0, Edition 7 IEC 60079-7, Edition 5.1 EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 + A1: 2018
Address of Manufacturer:	No. 1111, Heping Rd., Bade Dist., Taoyuan City 334004, Taiwan

DRP-C100 Series

Trade Mark:	MOXA [®]
Model/Rating:	<p>Model Names:</p> <ul style="list-style-type: none">• DRP-C100-C1-T• DRP-C100-C1-T-Win10• DRP-C100-C1-8L-T• DRP-C100-C1-6C-T• DRP-C100-C1-2L4C-T• DRP-C100-C5-T• DRP-C100-C5-T-Win10• DRP-C100-C5-8L-T• DRP-C100-C5-6C-T• DRP-C100-C5-2L4C-T• DRP-C100-C7-T• DRP-C100-C7-T-Win10• DRP-C100-C7-8L-T• DRP-C100-C7-6C-T• DRP-C100-C7-2L4C-T <p>Rating:</p> <ul style="list-style-type: none">• 12 VDC, 6.82 A or 24 VDC, 3.25 A <p>Relay Output:</p> <ul style="list-style-type: none">• 24 VDC, 1 A resistive
ATEX information:	 <p>II 3G Ex ec IIC T4 Gc UL 24 ATEX 3319X Ambient Range : -30°C ≤ Tamb ≤ +60°C Rated Cable Temp ≥ 105°C</p>
IECEX Certificate No.:	IECEX UL 24.0096X
Standards Covered:	IEC 60079-0, Edition 7 IEC 60079-7, Edition 5.1 EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 + A1: 2018
Address of Manufacturer:	No. 1111, Heping Rd., Bade Dist., Taoyuan City 334004, Taiwan

Specific Conditions of Use

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN/IEC 60079-0 and accessible only with the use of a tool.
- The equipment shall be used in an area with pollution degree 2 as defined in EN/ IEC 60664-1.
- The devices are OPEN-TYPE and are required to be installed in a suitable enclosure for the environment such that the devices can only be accessed with use of a tool.
- The devices are suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous location only.
- A 4mm² conductor must be used when connection to the external grounding screw is utilized; a power input leads stripping length of 6 to 7 mm is recommended.

- The EUT with other operating units shall be mounted with a minimum spacing of 2.5 cm on both sides and above/below or standalone.



WARNING

EXPLOSION HAZARD

Do not remove or replace battery unless power has been disconnected or the area is free of ignitable concentrations.

AVERTISSEMENT—RISQUE D'EXPLOSION. Ne pas retirer ni remplacer la batterie à moins que l'alimentation n'ait été coupée ou que l'emplacement ne soit exempt de concentrations inflammables.

Compass Safe Distance

Standard compass: 300 mm

Steering compass: 200 mm

BSMI

產品品名:

嵌入式電腦

製造商資訊:

Moxa 四零四科技股份有限公司

+886-3-2737575

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網址連結:

<https://www.moxa.com/Moxa/media/Products/document/Marking-of-Presence.pdf>

For Korean Region



WARNING

사용자 안내문 이 기기는 업무용 환경에서 사용할 목적으로 적합성 평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.