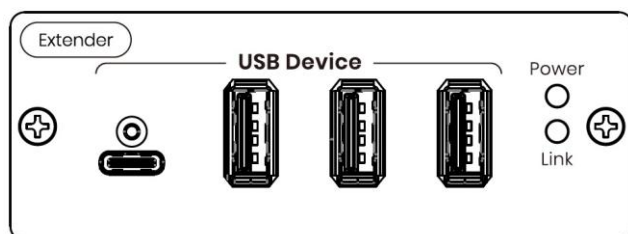
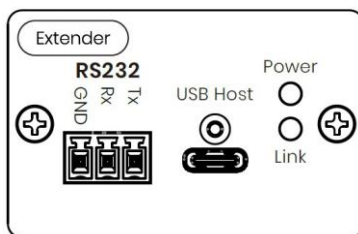


USB 3.2/2.0.1.1 USB CAT Extender

NP-UCE-14LR

User Guide

Ver.1.0.0



Thank you for choosing our product.

To ensure the best performance of this product, please read this user guide fully and carefully before using it and keep this manual together with the product for future reference as needed.

- All rights reserved.
- Some information contained in this guide such as exact product appearance, communication commands, and so on may differ depending on the product version.
- This guide is subject to change without notice. You can download the latest version from IDK's sales at: www.idkav.com



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Safety Instructions

Read all safety and operating instructions before using this product. Follow instructions and heed warnings/cautions.


Instructions and warnings/cautions for all products are provided. Some of them may not be applicable to your product.

 Warning	Indicates the presence of a hazard that may result in death or serious personal injury if the warning is ignored or the product is handled incorrectly.
 Caution	Indicates the presence of a hazard that may cause minor personal injury or property damage if the caution is ignored or the product is handled incorrectly.


Symbol	Description	Example
 Caution	This symbol is intended to alert the user. (Warning and caution)	 Hot surfaces Caution
 Prohibited	This symbol is intended to prohibit the user from specified actions.	 Do not disassemble
 Instruction	This symbol is intended to instruct the user.	 Unplug

Warning


For lifting heavy products:

 Instruction	<ul style="list-style-type: none"> • Lifting must be done by two or more personnel. <p>To avoid injury: When lifting the product, bend your knees, keep your back straight and get close to it with two or more persons.</p>
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For installing and connecting products:

 Prohibited	<ul style="list-style-type: none"> • Do not place the product in unstable place. <p>Install the product in a horizontal and stable place, as this may fall or tip over and cause injury.</p> <ul style="list-style-type: none"> • Secure the product if installing in the locations with vibration. <p>Vibration may move or tip over the product unexpectedly, resulting in injury.</p>
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Warning

 Instruction	<ul style="list-style-type: none"> ● Installation work must be performed by professionals. The product is intended to be installed by skilled technicians. For installation, please contact a system integrator or IDK. Improper installation may lead to the risk of fire, electric shock, injury, or property damage. ● Insert the power plug into an outlet that is unobstructed. Unobstructed access to the plug enables unplugging the product in case of any extraordinary failure, abnormal situation or for easy disconnection during extended periods of non-use. ● Insert the power plug into an appropriate outlet completely. If the plug is partially inserted, arcing may cause the connection to overheat, increasing the risk of electric shock or fire. Do not use a damaged plug or connect to a loose outlet. ● Unplug the product from an AC power source during installation or service. When connecting peripheral devices to this product, unplug all involved devices from outlets. Ground potential differences may cause fire or other difficulties. ● The product must be electrically earthed/grounded. To reduce the risk of electric shock, ensure the product is connected to a mains socket outlet with a protective earthing connection. ● For PoE/PoH, use category cables meeting IEEE802.3af/at. Otherwise, it may cause problems or a fire.
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For operating products:

 Prohibited	<ul style="list-style-type: none"> ● Keep out any foreign objects. To avoid fire or electric shock, do not permit foreign objects, such as metal and paper, to enter the product from vent holes or other apertures. ● For power cable/plug and Category cable, <ul style="list-style-type: none"> • Do not scratch, heat, or modify, including splicing or lengthening them. • Do not pull, place heavy objects on them, or pinch them. • Do not bend, twist, tie or clamp them together forcefully. <p>Misuse of the power cable and plug may cause fire or electric shock. If power cables/plugs become damaged, contact your IDK representative.</p>
 Do not disassemble	<ul style="list-style-type: none"> ● Do not repair, modify or disassemble. Since the product includes circuitry that uses potentially lethal, high voltage levels, disassembly by unauthorized personnel may lead to the risk of fire or electric shock. For internal inspection or repair, contact your IDK representative.
 Do not touch	<ul style="list-style-type: none"> ● Do not touch the product and connected cables during electric storms. Contact may cause electric shock.
 Instruction	<ul style="list-style-type: none"> ● Clean the power plug regularly. If the plug is covered in dust, it may increase the risk of fire.




If the following problem occurs:

 Unplug	<ul style="list-style-type: none"> ● Unplug immediately if the product smokes, makes unusual noise, or produces a burning odor. ● Unplug immediately if the product is damaged by falling or having been dropped. ● Unplug immediately if water or other objects are directed inside. <p>If you continue to use the product under these conditions, it may increase the risk of electric shock or fire. For maintenance and repair, contact your IDK representative.</p>
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Caution

For installing and connecting products:

 <p>Prohibited</p>	<ul style="list-style-type: none"> ● Do not place the product in a location where it will be subjected to high temperatures. If the product is subjected to direct sunlight or high temperatures while under operation, it may affect the product's performance and reliability and may increase the risk of fire. ● Do not store or operate the product in dusty, oil smoke filled, or humid place. Placing the product in such environment may increase the risk of fire or electric shock. ● Do not block the vent holes. If ventilation slots are blocked, it may cause the product to overheat, affecting performance and reliability and may increase the risk of fire. ● Do not place or stack heavy items on the product. Failure to observe this precaution may result in damage to the product itself as well as other property and may lead to the risk of personal injury. ● Do not exceed ratings of outlet and wiring devices. Exceeding the rating of an outlet may increase the risk of fire and electric shock.
 <p>No wet hands</p>	<ul style="list-style-type: none"> ● Do not handle power plug with wet hands. Failure to observe this precaution may increase the risk of electric shock.
 <p>Instruction</p>	<ul style="list-style-type: none"> ● Use and store the product within the specified temperature/humidity range. If the product is used outside the specified range of temperature and humidity continuously, it may increase the risk of fire or electric shock. ● Do not place the product at elevations of 1.24 mi. (2,000 m) or higher above sea level. Failure to do so may shorten the life of the internal parts and result in malfunctions. ● When mounting the product into the rack, provide sufficient cooling space. Mount the product in a rack meeting EIA standards, and maintain spaces above and below for air circulation. For your safety as required, attach an L-shaped bracket in addition to the panel mount bracket kit to improve mechanical stability. ● Never insert screws without the rubber feet into the threaded holes on the bottom of the product. Never insert screws alone into the threaded holes on the bottom of the product. Doing so may lead to damage when the screws contact electric circuitry or components inside the product. Reinstall the originally supplied rubber feet using the originally supplied screws only.

For operating products:

 <p>Hot surfaces Caution</p>	<p>For products with the hot surfaces caution label only:</p> <ul style="list-style-type: none"> ● Do not touch the product's hot surface. <p>If the product is installed without enough space, it may cause malfunction of other products. If you touch product's hot surface, it may cause burns.</p>
 <p>Prohibited</p>	<ul style="list-style-type: none"> ● Use only the supplied power cable and AC adapter. ● Do not use the supplied power cable and AC adapter with other products. <p>If non-compliant adapter or power cables are used, it may increase the risk of fire or electric shock.</p>
 <p>Unplug</p>	<ul style="list-style-type: none"> ● If the product won't be used for an extended period of time, unplug it. <p>Failure to observe this precaution may increase the risk of fire.</p> <ul style="list-style-type: none"> ● Unplug the product before cleaning. <p>To prevent electric shock.</p>
 <p>Instruction</p>	<ul style="list-style-type: none"> ● Do not prevent heat release. <p>If cooling fan stops, power off the product and contact IDK. Failure to do so may raise internal temperature and increase the risk of malfunction, fire, or electric shock.</p> <ul style="list-style-type: none"> ● Keep vents clear of dust. <p>If the vent holes near the cooling fan or near the fan are covered with dust, internal temperatures increase and may increase the risk of malfunction. Clean the vent holes and near the fan as needed. If dust accumulates inside of the product, it may increase the risk of fire or electric shock. Periodic internal cleaning, especially before humid rainy season, is recommended. For internal cleaning, contact your IDK representative.</p>

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About this Product

NP-UCE-14LR is a transceiver that transmits USB 3.2 Gen1 / USB 2.0/1.1 signals over long distance via CAT cable. The transmission distance is 70 m from each transceiver. There is no need to install additional software for use. Local Unit (Host side) is Bus-powered by host PC, and Remote Unit (Device side) needs external power supply unit.

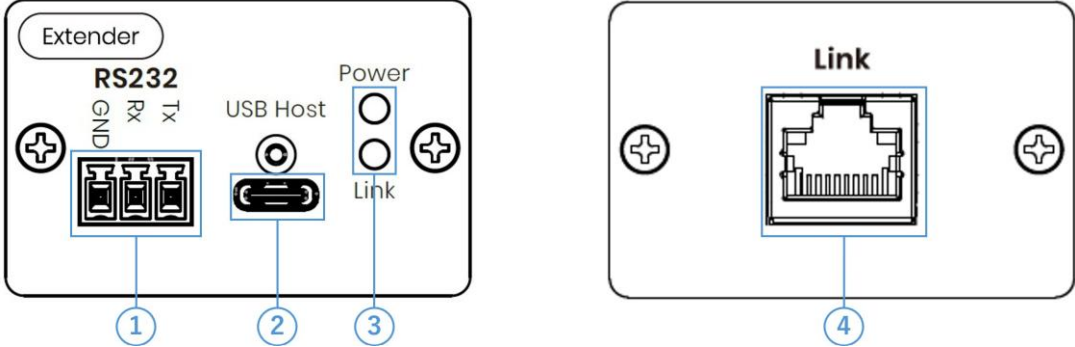
Accessories

Please ensure that all the accessories below are included.

- | | |
|----------------------------|---------|
| • NP-UCE-14L (Local Unit) | 1 unit |
| • NP-UCE-14R (Remote Unit) | 1 unit |
| • AC adapter | 1 piece |
| • Rack mounting parts | 2 pair |

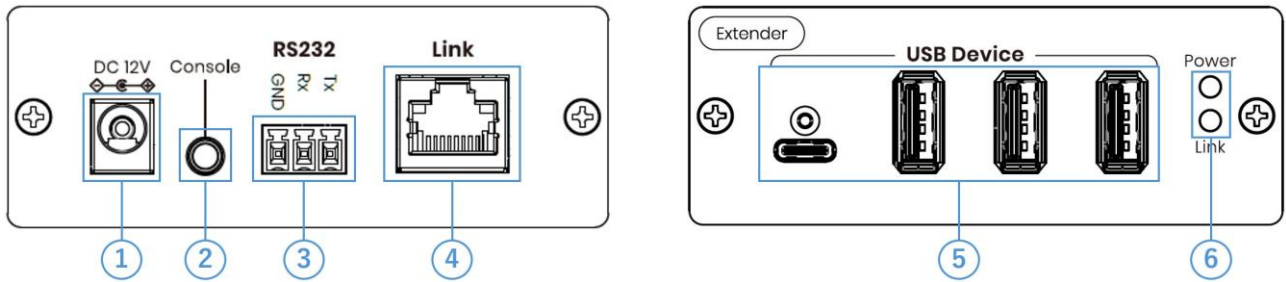
Product Introduction

• NP-UCE-14L (Local Unit)



①	RS-232C RS-232C Connector Port
②	USB Type-C port Connecting port for USB Host
③	LED LED to indicate the status of Power and Link
④	RJ-45 To connect to NP-UCE-14R (Remote Unit)

▪ **NP-UCE-14R (Remote Unit)**



①	DC Jack To connect to AC adapter
②	3.5mm Phone Jack To update firmware
③	RS-232C RS-232C Connector Port
④	RJ-45 To connect to NP-UCE-14L (Local Unit)
⑤	USB Type-C/Type-A port Connecting port for USB Devices
⑥	LED LED to indicate the status of Power and Link

LED Indication

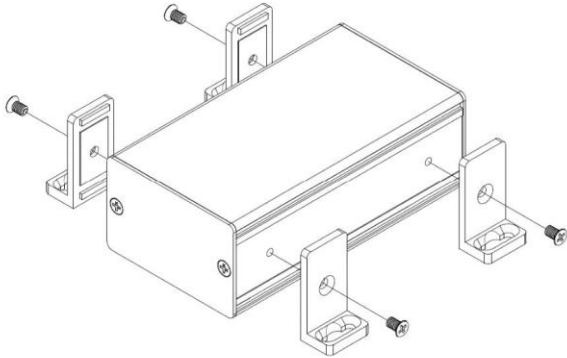
<p>Power</p> <p>ON: Power on OFF: Power off</p>
<p>Link</p> <p>ON: NP-UCE-14L (Local Unit) and NP-UCE-14R (Remote Unit) linked OFF: No connection with NP-UCE-14L (Local Unit) or NP-UCE-14R (Remote Unit)</p>

Installation

Installed on a Platform

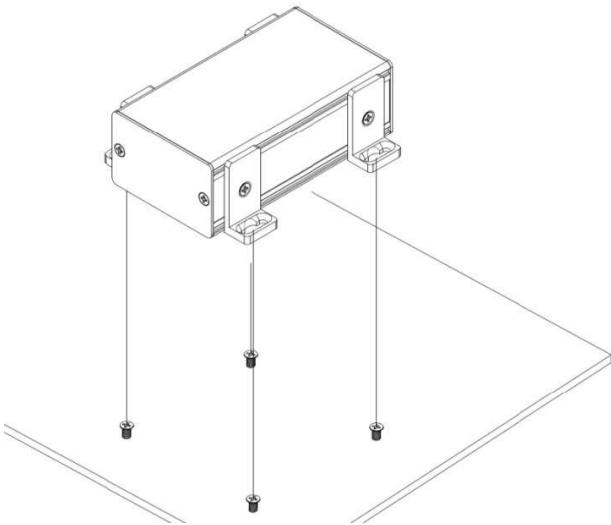
Step 1

Use machine screws to fix angle brackets on both sides of the product.



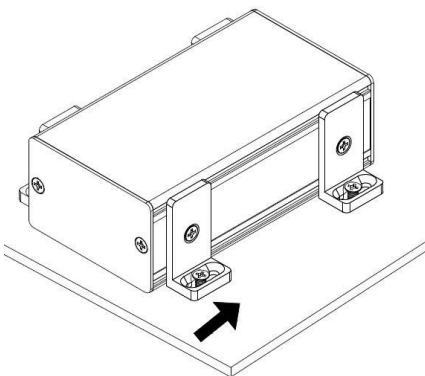
Step 2

Use self-drilling screws to fix the product on a platform.



Step 3

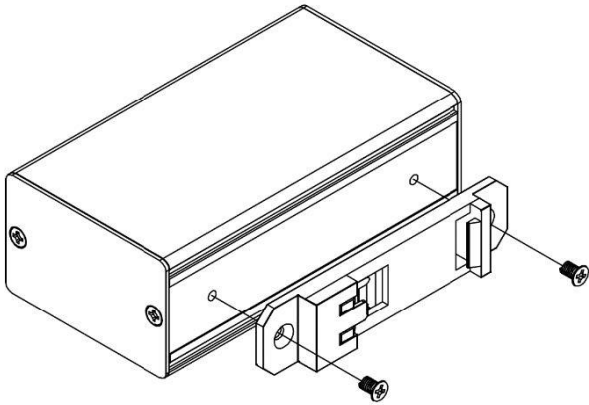
Move the product to get fixed and then lock the screws.



Installed on a DIN-rail

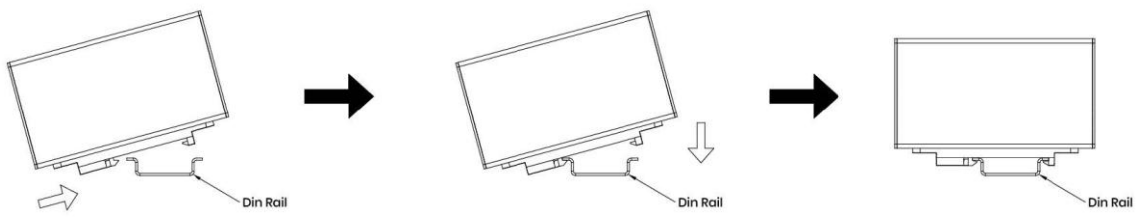
Step 1

Use machine screws to fix a DIN-rail mounting plate on the side of the product.



Step 2

Install the product on a DIN-rail as below instruction.



Specification

		NP-UCE-14L (Local Unit)	NP-UCE-14R (Remote Unit)
USB		1 Host Port	4 Device Ports
		USB 3.2 Gen1x1 / USB 2.0 / USB 1.1 (*1)	
		Maximum data rate: 5 Gbps Capable transfer mode: Control, Bulk, Interrupt, Isochronous	
		Connector: USB Type-C Receptacle (*2) Maximum distances: 6.6 ft (2 m)	Connector: USB Type-C Receptacle(x1), USB Type-A Receptacle(x3) Maximum distances: 6.6 ft (2 m)
CAT		1 Port	1 Port
		Connector: RJ-45 Maximum distances: 229.6 ft (70 m) Cable: CAT6A / CAT7 Data transfer bandwidth: 6Gbps / 6Gbps (bidirectional transmission)	
	Control I/F	RS-232C	1 Port/Connector: Captive screw (3-pin)
General	Power	Power supplied 5 V from Host devices	12 V / 1.5 A (AC adapter)
	Power consumption	2 W	2.76 W (no USB devices connected) Current from each USB Connector: 1.5 A
	Dimensions	50.0 (W) x 32.0 (H) x 93.0 (D) mm	87.3 (W) x 32.0 (H) x 123.0 (D) mm
	Weight	128 g	259 g
	Temperature	Operating: 32°F to 104°F (0°C to +40°C), Storage: -4°F to +176°F (-20°C to +80°C)	
	Humidity	20 % to 90 % (non-condensing)	
Accessories		AC adapter x1, angle brackets for mounting x2	

(*1) Depending on the environment or USB Devices, transmission speed may be reduced.

(*2) USB Alternate Mode and USB Power Delivery are NOT supported.

Troubleshooting

This chapter provides recommendations in case difficulties are encountered during the setup and operation.

In case the NP-IPV-01U does not work correctly, please check the following items first.

- Are the NP-IPV-01U and all devices connected to power or powered on?
- Are signal cables connected correctly?
- Are there any loose or partially mated connections?
- Are the interconnecting cables specified correctly to support adequate bandwidth?
- Are specifications of connected devices matched to each other?
- Are configuration settings for the connected devices correct?
- Is there any nearby equipment that may cause electrical noise/RF interference?

Refer to the manuals of connected devices as well, since they may possibly be the cause of the problem.

If the problem persists, please contact us after checking the following items.

- Does the problem occur at all connectors?

Does the problem occur when you connect the devices without connecting the NP-IPV-01U?

NP-UCE-14LR User Guide

Ver.1.0.0



Arvanics Corporation

E-mail: info@arvanics.com

URL: <http://www.arvanics.com>