

USB 3.0 SP3001-15

1-Port USB 3.0 15m Active Extension Cable

User Guide



←EXTREME→
USB®

Thank you for purchasing the USB 3.0 SP3001-15.

Please read this guide thoroughly.

This document applies to Part Number 01-00470.

FCC Radio Frequency Interference Statement Warning

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

CE Statement

We declare under our sole responsibility that the SP3001-15, to which this declaration relates, is in conformity with European Standard EN 55022, EN 61000, EN 55024.

IC Statement

This Class B digital apparatus complies with Canadian ICES-003.

WEEE Statement

The European Union has established regulations for the collection and recycling of all waste electrical and electronic equipment (WEEE). Implementation of WEEE regulations may vary slightly by individual EU member states. Please check with your local and state government guidelines for safe disposal and recycling or contact your national WEEE recycling agency for more information.

Product Operation and Storage

Please read and follow all instructions provided with this product, and operate for intended use only. Do not attempt to open the product casing as this may cause damage and will void warranty. When not in use, product should be stored in a dry location between -20°C and 70°C.

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Introduction

This guide provides product information for the 15-meter USB 3.0 SP3001-15 active copper extension cable, installation instructions and troubleshooting guidelines.

The instructions in this guide assume a general knowledge of computer installation procedures, familiarity with cabling requirements, and some understanding of USB devices.



NOTE: Notes provide additional information that could be useful.



CAUTION: Cautions provide important information about an operational requirement.

USB 3.0 SP3001-15 Product Contents

Your SP3001-15 package includes:

- 15 meter USB 3.0 SP3001-15 Active Copper Cable
- Cable Tie
- Quick Start Guide

Features

The SP3001-15 incorporates patented ExtremeUSB® technology, enabling users to extend beyond an approximate 3m cable limit for USB 3.0 peripheral devices. With the SP3001-15, USB 3.0 devices can be extended 15m from the computer.

The SP3001-15 includes the ExtremeUSB® suite of features:



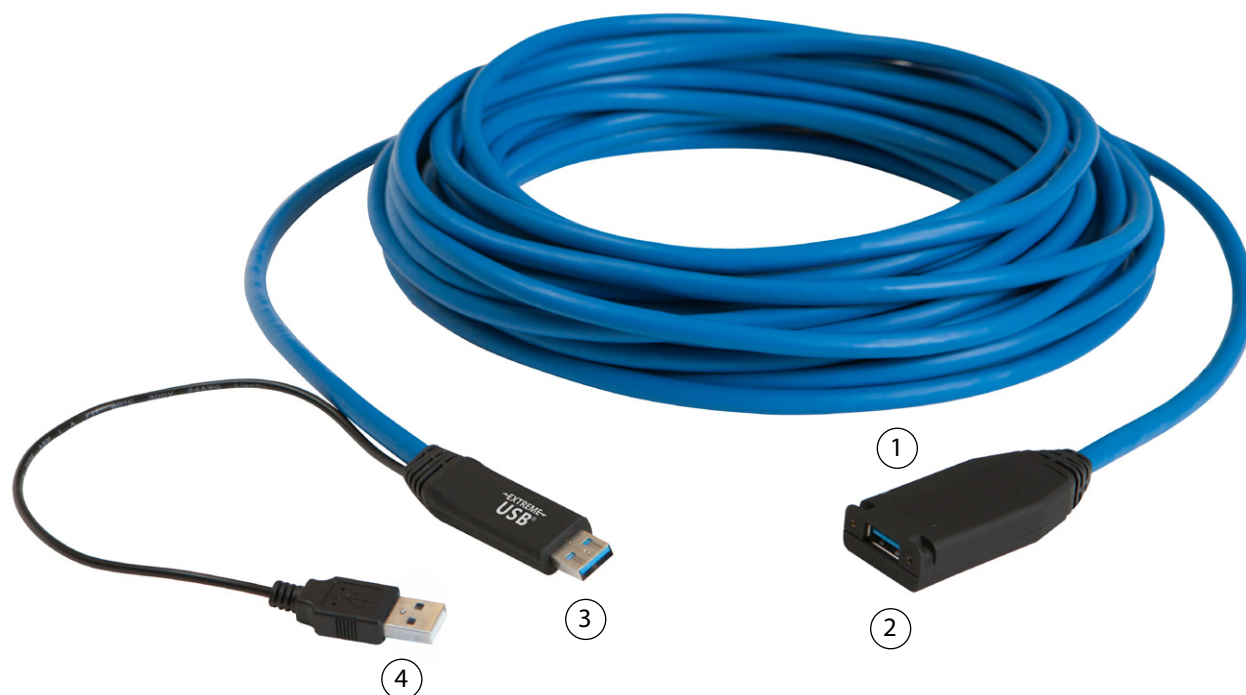
- Transparent USB extension
- True plug and play; no software drivers required
- Works with all major operating systems: Windows®, OS X®, and Linux®

The SP3001-15 is a single-port USB 3.0 SuperSpeed active copper extension cable that is designed to work with AIA USB3 Vision™ compliant devices such as machine vision cameras.



CAUTION: The SP3001-15 supports only USB 3.0 devices. USB 2.0 and 1.1 devices will not function using this extender.

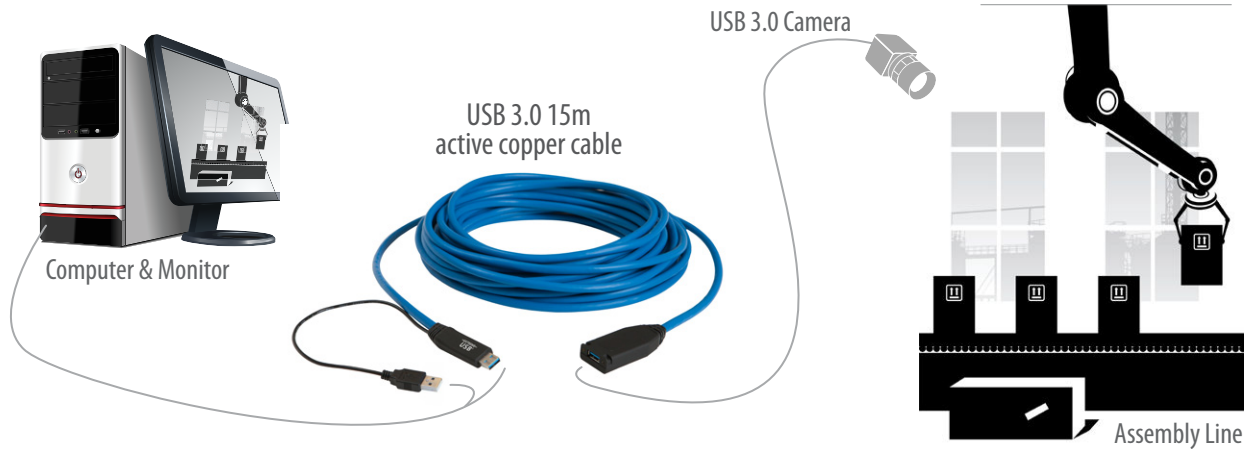
USB 3.0 SP3001-15 Parts Diagram



ITEM	TYPE	DESCRIPTION
1	LED Light is GREEN	Active cable is powered on.
	LED Light is RED	Active cable is not powered properly or not detected by host.
2	USB 3.0 Type A Locking Receptacle	Connects to USB 3.0 device. Port can accept USB 3.0 standard connector and locking-type connector as per AIA USB3 Vision standards.
3	USB 3.0 Host Connector	Connects to USB 3.0 port on host computer.
4	USB Power Connector	An additional power supply that can be connected to the host computer. It is recommended to plug this power connector into the host computer especially for USB devices that draw more than 2.5W of power.

Installation Guide

Example Application



Requirements

To complete installation of the SP3001-15, you will also require the following items that are not included with the product:

- USB 3.0 compatible computer (host computer) with a USB 3.0 compliant operating system
- USB 3.0 compatible device (e.g. camera or storage drive)
- Optional: cable to connect the USB 3.0 device to the SP3001-15 (if required, e.g. USB 3.0 camera)

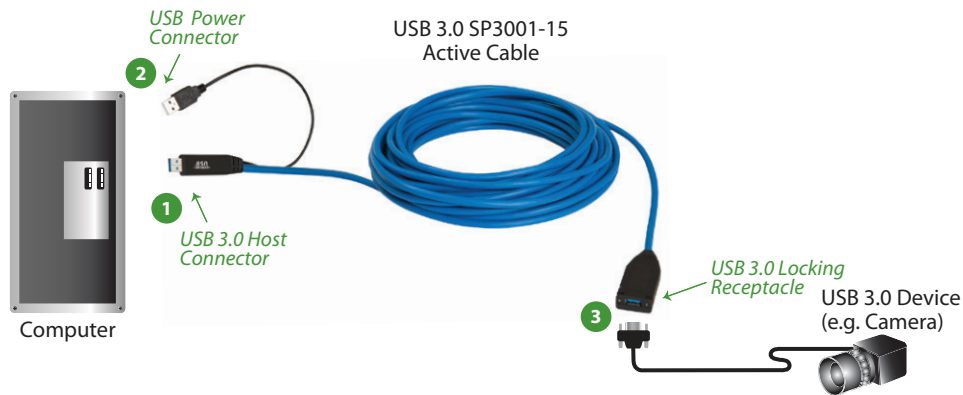
! CAUTION: The SP3001-15 cable is not backward compatible with USB 2.0/1.1 devices. Per USB-IF specification, USB 3.0 devices must attempt enumeration on USB 3.0 first. If your USB 3.0 device enumerates on USB 2.0 first, then your device is out of spec and will not operate with this cable.

! CAUTION: The SP3001-15 will not operate on a USB 2.0 port; please ensure you connect it to a USB 3.0 port.

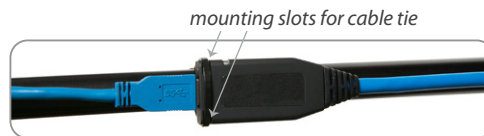
Connection Instructions

Before you get started, ensure that all the drivers required for your USB 3.0 device(s) are installed.

1. Plug the SP3001-15's USB 3.0 host connector into a USB 3.0 port on your computer.
2. It is recommended to plug the SP3001-15's USB power connector into any USB port on your computer. This step is essential if your USB 3.0 device is not self-powered or draws more than 2.5W of power.
3. Attach your USB 3.0 device into the SP3001-15's USB 3.0 receptacle. AIA USB3 Vision locking USB connectors are supported if needed.



Conveniently secure your configuration by wrapping the included cable tie around the USB 3.0 receptacle's two mounting slots.



Most USB 3.0 self-powered devices and flash drives require less than 2.5W of power, while many of the USB 3.0 cameras need more than 2.5W of power. When more than 2.5W of power is required, both connectors of the SP3001-15 should be plugged into the host computer.

! **CAUTION:** The SP3001-15 is a rugged and robust cable. However, it can be subject to damages if the SP3001-15 is bent beyond the bend radius of 28mm (1.10"). For optimal performance, use the SP3001-15 according to the product specifications (on page 9 of this guide).

Compatibility

The SP3001-15 complies with USB 3.0 specifications governing the design of USB devices. However, Icron Technologies Corporation does not guarantee that all USB 3.0 devices are compatible with the SP3001-15, as there are a number of different configurations that may impact the operation of USB 3.0 devices over extended distances.

! **CAUTION:** The SP3001-15 supports only USB 3.0 devices. USB 2.0 and 1.1 devices will not function using this extender.

Troubleshooting

The following table provides troubleshooting tips. The topics are arranged in the order in which they should be executed in most situations. If you are unable to resolve the problem after following these instructions, please contact Technical Support where you purchased this cable for further assistance.

PROBLEM	CAUSE	SOLUTION
The LED light on the cable is red	<ul style="list-style-type: none"> • The USB 3.0 device draws more than 2.5W of power and the USB power connector is not plugged in. • The SP3001-15 is not recognized by the host computer. • The host computer is not providing enough power. • The SP3001-15 is malfunctioning. 	<ol style="list-style-type: none"> 1. Disconnect the SP3001-15 from your host computer. 2. Plug in the USB power connector first, and then plug into the host connector. 3. If this problem persists, move the USB power connector to another USB port on the host computer. 4. Contact Technical Support for assistance.
The LED light on the cable is green but the USB 3.0 device does not operate correctly, or is detected as an "Unknown Device" in the operating system.	<ul style="list-style-type: none"> • The USB 3.0 device enumerates on USB 2.0 prior to USB 3.0. • The USB 3.0 device is malfunctioning. • The computer does not recognize the USB 3.0 device. • The application software for the device is not operating. • The SP3001-15 is malfunctioning. 	<ol style="list-style-type: none"> 1. Disconnect the SP3001-15 from the computer. 2. Connect the USB device directly into the USB 3.0 port on your computer. 3. If your USB device does not operate properly, consult the user documentation for this device. 4. Update your system BIOS, chipset, or USB Host controller drivers from your System/Mother board manufacturer's website. 5. If your USB device operates properly when directly connected to the computer, connect another USB 3.0 device (of a different type) to the SP3001-15. Connect the SP3001-15 to your computer. 6. If your second USB 3.0 device does not operate, the SP3001-15 may be malfunctioning. Contact Technical Support for assistance. 7. If your second USB 3.0 device does operate properly, your first device may not be compatible with the SP3001-15.

Contacting Technical Support

If you are experiencing problems not referenced in the Troubleshooting Guide, contact Technical Support at the company where you purchased this product and provide them with the following information:

- Host computer make and model
- Type of Operating System installed (e.g. Windows 8, OS X, etc.)
- Part number and serial number the active cable
- Make and model of the USB 3.0 device attached to the product
- Description of the installation
- Description of the problem

Specifications

RANGE	
Active Copper Cable	15m (49.21 ft)
SPEEDS	
USB 3.0	Up to 5Gbps (Not backward compatible with USB 2.0/1.1)
PHYSICAL	
USB Connector on Device Side	1 x USB 3.0 Type A Locking Receptacle per AIA USB 3 Vision™ specification
USB Connectors on Host Side	1 x USB 3.0 Host Connector and 1 x USB 3.0 Power Connector (recommended for devices drawing more than 2.5W)
Cable Diameter	6.9mm (0.27")
Jacket Material	PVC
Minimum Bend Radius	28mm (1.10")
Mounting Slots on Device Side	Slots for Cable Tie
POWER	
Power Source	Bus Power
Available Power to Device	5V, 900mA*
ENVIRONMENTAL	
Operating Temperature Range	0°C to 45°C (32°F to 113°F)
Storage Temperature Range	-20°C to 70°C (-4°F to 158°F)
Operating Humidity	20% to 80% relative humidity, non-condensing
Storage Humidity	10% to 90% relative humidity, non-condensing
COMPLIANCE	
EMC	FCC (Class B), CE (Class B)
Environmental	RoHS2 (CE)
Flammability	VW-1 (UL 1581)
Machine Vision	Works with AIA USB3 Vision™ compliant devices
SUPPORT	
Warranty	2-year

*When both connectors are plugged into the host computer.