Electro Standards Laboratories
ADVANCED SYSTEMS DESIGN & SERVICES

MADE IN USA

SPECIFICATIONS
Host, Desktop Unit... Model 4662 (Cat No. 304662)
Host, DIN Rail Mounted Unit... Model 4662-DIN (Cat No. 304662-DIN)
4-Port USB Hub, Desktop Unit... Model 5169 (Cat No. 305169)
4-Port USB Hub, DIN Rail Mounted Unit... Model 5169-DIN (Cat No. 305169-DIN)
Included USB A-B Cable, 6 ft.... (Cat No. 507366)
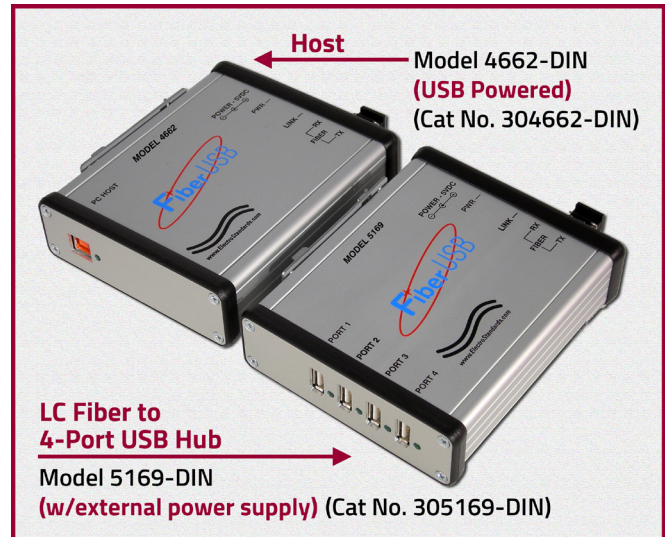
High Speed Fiber-to-USB Converter/Extender, Host & 4-Port USB Hub

- **Simultaneously connect up to four USB Interface Devices to your desktop PC or notebook.**
- **High speed connection to distant USB devices over multimode fiber optic cable.**

INTRODUCTION

The Desktop Units, Models 4662 and 5169, or the DIN Rail Mounted units, Models 4662-DIN and 5169-DIN, comprise, a **USB Powered Host** and a Four Port USB Wired Hub that extend USB connections up to 500 meters via a high speed Fiber interface.
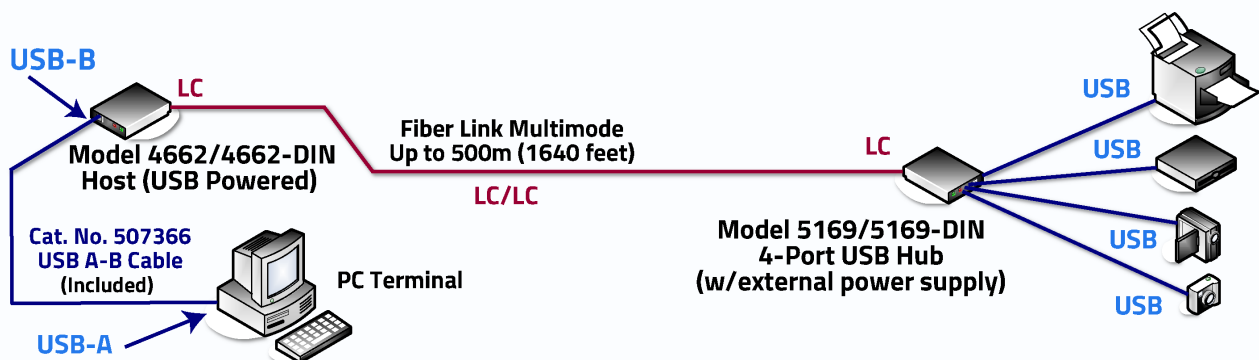
FEATURES:

- Convert USB 2.0 compliant data from a standard PC Host interface, Model 4662, over fiber to a remote 4-port powered USB Hub, Model 5169.
- Ideal for applications involving PC communication that require high speed, secure communication, and optical isolation.
- Extend USB communication in environments that are subject to high EM or RF interference that might corrupt communication over a copper interface.
- Typical applications include industrial control, KVM extension, remote desktop USB connections, and remote USB device sharing such as printers, scanners and storage devices.
- Units offer true plug and play operability with support for Windows ®, Mac OS®, Linux®, and support all USB device types: Control, Interrupt, Bulk and Isochronous up to 480 Mbps.
- Designed to operate from -0 degree C to +50 degree C (component ratings meet or exceed 0° C to to 70° C).
- Units feature ESD protection circuitry on all copper USB I/O interfaces.
- Power inputs are protected from transients and the 4-port USB Hub provides the USB standard of 500mA per port.
- LEDs display Power, Fiber Link Active, Host Active (Model 4662, 4662-DIN) and Port Active (Model 5169, 5169-DIN) indicator LEDs.

Host
Model 4662-DIN
(USB Powered)
(Cat No. 304662-DIN)

LC Fiber to 4-Port USB Hub
Model 5169-DIN
(w/external power supply) (Cat No. 305169-DIN)

Two configurations are available for each model:

1. **Model 4662** Host Desktop Unit, for applications requiring an enclosure. **(USB Powered)**
2. **Model 4662-DIN** Host Unit for applications requiring mounting on a DIN rail. **(USB Powered)**
3. **Model 5169** 4-Port USB Hub Desktop Unit, for applications requiring an enclosure. (w/external power supply)
4. **Model 5169-DIN** 4-Port USB Hub Unit for applications requiring mounting on a DIN rail. (w/external power supply)

Host and 4-Port USB Hub Typical Application

USB-B
LC
Model 4662/4662-DIN Host (USB Powered)

Fiber Link Multimode Up to 500m (1640 feet)
LC/LC
LC

Cat. No. 507366 USB A-B Cable (Included)

PC Terminal

USB-A

Model 5169/5169-DIN 4-Port USB Hub (w/external power supply)

USB
USB
USB
USB

USB A-B Cable (6 FT): Included with Model 4662 / 4662-DIN is the cable ESL Cat. No. 507366. (USB Type A to USB Type B)

SPECIFICATIONS
Host, Desktop Unit... Model 4662 (Cat No. 304662)
Host, DIN Rail Mounted Unit... Model 4662-DIN (Cat No. 304662-DIN)
4-Port USB Hub, Desktop Unit... Model 5169 (Cat No. 305169)
4-Port USB Hub, DIN Rail Mounted Unit... Model 5169-DIN (Cat No. 305169-DIN)
Included USB A–B Cable, 6 ft.... (Cat No. 507366)

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High Speed Fiber-to-USB Converter/Extender, Host & 4-Port USB Hub

Specifications:

USB Interface:

Connectors: Model 4662 - 1x USB Type B, High Retention
Model 5169 - 4x USB Type A,
(5V @500mA/port)

Model 4662-DIN - 1x USB Type B, High Retention
Model 5169-DIN - 4x USB Type A,
(5V @500mA/port)

USB Data Format:

Type: USB 2.0 Compliant (Backwards compatible USB 1.1)
Rate: Supports Low Speed (1.5 Mbps),
Full Speed (12 Mbps), and High Speed
(480 Mbps) USB Data transfer rates.

Fiber Interface:

Connectors: Fiber Optic LC SFP Transceiver
TX Power: -6.5 dBm (Typical)
RX Sensitivity: -21.5 dB (Typical)
Optical Budget: 14.5 dB
Max. Link Distance with 50/125 μm fiber: 500 Meters.
LC/LC Duplex fiber cable - Cat. No. 986147
Max. Link Distance with 62.5/125 μm fiber: 275 Meters.
LC/LC Duplex fiber cable - Cat. No. 986017
Wavelength: 850 nm, multimode

LED Indicators:

Model 4662 - Power, Fiber Link Active, Host Active
Model 5169 - Power, Fiber Link Active, Port Active

Model 4662-DIN - Power, Fiber Link Active, Host Active
Model 5169-DIN - Power, Fiber Link Active, Port Active

Input Power: Requirement

Model 4662 - 5VDC @ 2.5W
Model 5169 - 5VDC @ 15W

Model 4662-DIN - 5VDC @ 2.5W
Model 5169-DIN - 5VDC @ 15W

Power Connector:

On Models 5169 and 5169-DIN, the input power connector
is a DC power jack (Circular Barrel Type).

External Power Supply:

**An external power supply is not included with either
the Model 4662 or the Model 4662-DIN Host units since
they are USB-Powered.** The Model 5169 and the 5169-DIN
USB Hub units include a wide range UL and CE approved
100VAC/240VAC, 50Hz/60Hz table mount power module.
Ideal for international applications.

Operating Environment:

Tested operation, 0°C to +50°C; component ratings
meet or exceed 0℃ to 70℃.

Model 4662 Mechanical (Desktop Unit):

Model 4662, Cat No 304662
Size: 5.67" x 4.19" x 1.43" (14.5 x 10.7 x 3.7 cm)
Weight: Approx. 11.0 oz (310.5 g)
Mounting: Desktop Standard, DIN rail (Optional)

Model 5169 Mechanical (Desktop Unit):

Model 5169, Cat No 305169
Size: 5.67" x 4.19" x 1.43" (14.5 x 10.7 x 3.7 cm)
Weight: Approx. 11.4 oz (324g)
Mounting: Desktop Standard, DIN rail (Optional)

Model 4662-DIN Mechanical (DIN Rail Mounted Unit):

Model 4662-DIN, Cat No 304662-DIN
Size: 5.37" x 4.28" x 1.43" (14.5 x 10.7 x 3.7 cm)
Weight: Approx. 11.0 oz (310.5 g)
Mounting: 2 Threaded Holes Standard, DIN rail
DIN Rail Bracket Size: 2.84" x 1.24" x 0.16"
DIN Rail Bracket Weight: 0.9 oz (25.5g)

Model 5169-DIN Mechanical (DIN Rail Mounted Unit):

Model 5169-DIN, Cat No 305169-DIN
Size: 5.67" x 4.28" x 1.43"(14.3 x 10.9 x 3.7 cm)
Weight: Approx. 11.4 oz (324g)
Mounting: 2 Threaded Holes Standard, DIN rail
DIN Rail Bracket Size: 2.84" x 1.24" x 0.16"
DIN Rail Bracket Weight: 0.9 oz (25.5g)