User Guide

MS-63WP

USB-C 3.2 Gen 1
wall plate extender set



Revision: 1.0 - Nov 2026

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Notices

- This MSolutions product contains electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection is highly recommended in order to protect and extend the life of your equipment.
- The transmission distances of data over Cat cables are measured using TE CONNECTIVITY 1427071-6 EIA/ TIA-568B termination (T568B) of cables is recommended for optimal performance. To minimise interference of unshielded twisted pairs in the Cat6A (or above) cable, do not run the Cat6A (or above) cabling with or in close parallel proximity to mains power cables.
- Do not substitute or use any other power supply other than the enclosed unit, or an MSolutions approved replacement. Do not disassemble either the Transmitter or Receiver units for any reason. Doing so will void the manufacturer's warranty.
- MSolutions reserves the right to change the specifications of this unit without prior notice. As a result of this, physical representations or graphical elements contained within this user guide may not be accurate.

Introduction

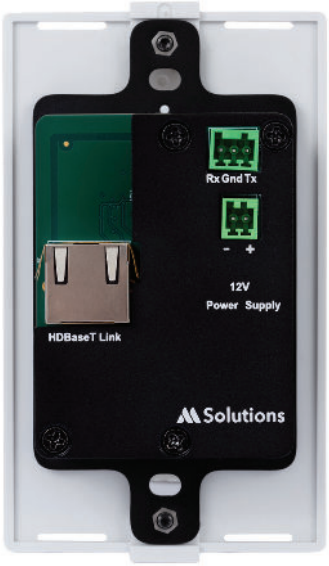
The MSolutions MS-63WP is a professional grade USB-C 3.2 Gen 1 extender set for wall or podium installations. It allows for a single USB-C data channel to be extended to distances of up to 100m over a single Cat6A (or above) cable infrastructure. The extender features RS-232 serial pass-through, which expands the capabilities of this extender kit for a variety of commercial uses.

Key Features

- Supports uncompressed USB 3.2 Gen 1 (5Gbps) data extension up to 100 meters over Cat6A cable (or above).
- Bi-directional RS-232 serial pass through.
- Single power source at the device side. The host side (WP) is powered by the USB-C connection from the host PC.
- Flexible USB extension for USB-C cameras, hard drives, and other USB-C peripherals.

Connectivity Overview - TX





Front panel:

- USB-C Host - connect to host PC

Back panel:

- RJ45 port - connect to Cat 6A cable from the Device
- RS-232 - use supplied 3-pin phoenix connector to connect to serial device

Connectivity Overview - RX



Front panel:

- RJ45 Port - connect to Cat6A cable from the Host
- USB-C port - connect to USB-C peripheral device



Back panel:

- Micro USB - control port for FW update and control (reserved for future use)
- RS-232 - use supplied 3-pin phoenix connector to connect to serial device
- Power - connect to 12V/2A DC power supply

Understanding the LED's

This MSolutions extender set includes status LED indicators on both the Host and Device products to show active connections and to further help integrators diagnose potential problems with the associated cabling. The RJ45 Link connections on both the host and device units have orange and green LED's. ▪ The orange LED indicates that the unit is receiving power. The LED will blink continuously when there is a link to the unit on the opposing side of the cable. ▪ The green LED indicates that the unit is communicating with the unit attached to the far side of the link over the Cat cable.

The Host unit (WP) LEDs will turn on only after a USB-C connection to the host PC is made.

Category Cabling for Extenders

It is important that the interconnecting category cable between the MSolutions products is terminated using the correct RJ45 pin configuration. The link category cable must be a 'straight' (pin-to-pin) category cable and it is advised that this is wired to the T568B wiring standard as this format is less prone to EMI (Electro-Magnetic Interference).

When installing category cables it is advised that the best possible category cable quality possible is used. MSolutions recommends using a Cat6A (or above) cable for installations, especially when running over longer distances, in areas of high EMI, or with high data rate signal distribution.

USB

This USB 3.2 extender allows for USB-C peripherals including cameras, touch screens, smart boards, hard drives, games controllers, USB audio devices, printers, scanners, and HID's (mouse or keyboard) to be distributed over a distance of up to 100m to a USB-C host device on the far side of the link.

The extender supports transparent true plug and play USB pass-through without the requirement of software or driver son the extender kit.

A maximum combined data transfer of 5Gbps can be achieved over the link.

The Micro-USB connection on the Device unit is utilised for firmware updating and are reserved for future CloudOS control.

Note: the USB-C connectivity does not support high-bandwidth video data from a laptop / tablet to a display because this set supports data only and not DP Alt Mode extension.

RS-232 Control

The MS-63WP can distribute bi-directional serial commands between the transmitter and receiver to allow for control commands to be sent alongside USB.

Each unit is fitted with a 3-pin phoenix connector block that will need the serial TX, RX and Ground pins terminating into for serial pass-through. The link has the ability to transparently send any type of serial data as both pieces of equipment are able to communicate using the same baud rate, stopgap, and parity.

Specifications

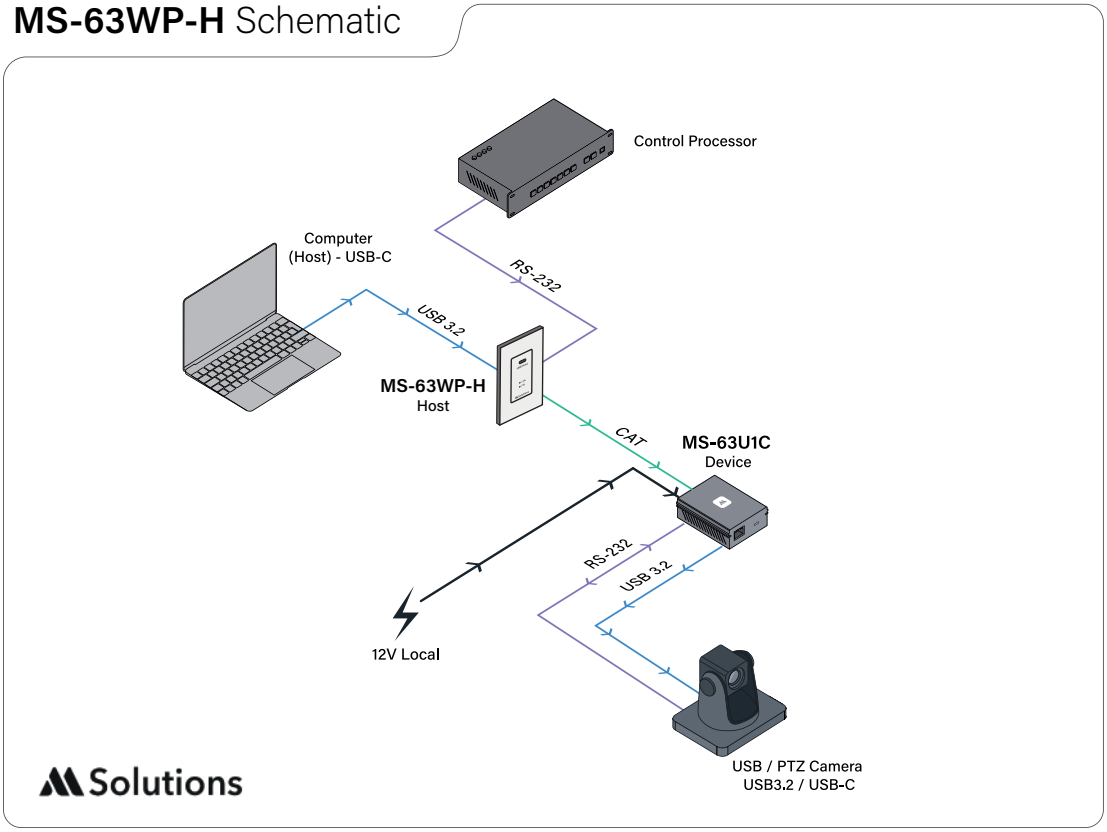
- USB connectivity Host: 1x USB-C (female) - data only
- USB connectivity Device: 1x USB-C (female) - data only
- Micro-USB connectivity (on Device only): for product
- update, and Cloud control (future)
- RS-232 connectivity (Host & Device): 1x 3-pin
- phoenix connector, block included
- Power supply: 1x 12V 2A DC - connection on Device
- Power consumption: 3W
- Individual unit dimensions (W x D x H):
  – Host (WP): 51.2 x 24 x 68mm
  – Device: 60 x 84 x 25mm
- Individual unit weight: 0.1kg
- Package dimensions (W x D x H): 163 x 147 x 85mm
- Package weight: 0.5kg
- Master carton quantity: 18
- Master carton dimensions (W x D x H): 540 x 270 x
- 260mm
- Master carton weight: 10kg
- Operating temperature: 32°F to 104°F (0°C to 40°C)
- Storage temperature: -4°F to 140°F (-20°C to 60°C)
- Operating humidity: 0-80% non condensing

Package Contents

- 1x MS-63WP (transmitter)
- 1x MS-63U1C (receiver)
- 1 x 12V / 2A DC power supply with US, UK, and EU clips
- 2 x 3-pin phoenix connector blocks
- 1 x Surface mounting bracket

Schematic

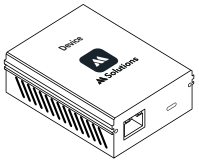
MS-63WP-H Schematic



MS-63WP-H
Host



MS-63U1C
Device



USB 3.2
CAT
RS-232
Power



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