

**Solutions**  
**MS-63U1A-**  
**XR USB Type**  
**A Extender**  
**Set**



# M SOLUTION MS-63U1A-XR USB Type A Extender Set User Guide

[Home](#) » [M SOLUTION](#) » M SOLUTION MS-63U1A-XR USB Type A Extender Set User Guide 

## Contents

- 1 M SOLUTION MS-63U1A-XR USB Type A Extender Set
- 2 Product Usage Instructions
- 3 FAQs
- 4 PRODUCT INFORMATION
- 5 Introduction
- 6 Key Features
- 7 Connectivity Overview
- 8 Category Cabling for Extenders
- 9 Specifications
- 10 Package Contents
- 11 Schematic
- 12 CONTACT INFORMATION
- 13 Documents / Resources
  - 13.1 References
- 14 Related Posts

**Solutions**

## M SOLUTION MS-63U1A-XR USB Type A Extender Set



## Product Usage Instructions

### 1. Connectivity Overview

- **Device:** Connect the USB-A device to the back panel Line in port.
- **Host:** Connect the Line out port on the back panel to the host device.

### 2. Understanding the LED's

- The LEDs indicate the status of the link over the Cat cable.

### 3. Cabling for Extenders

- Use Cat6A (or above) cable infrastructure for extending the USB-A data channel up to 100m.

### 4. USB RS-232 Control

- The extender supports bi-directional serial commands between the transmitter and receiver. Use a 3-pin Phoenix connector block for serial pass-through.

### 5. Power

- Connect the provided 12V/2A DC power supply to both the Host and Device units for power.

## FAQs

### • Q: What type of cable should I use with the extender?

- A: It is recommended to use Cat6A or above cable for optimal performance when extending the USB-A data channel.

### • Q: Can I use a different power supply with the MS-63U1A-XR?

- A: No, please only use the supplied 12V/2A DC power supplies to ensure proper functioning of the unit.

## PRODUCT INFORMATION

### Notices

- This MSolutions product contains electrical components that may be damaged by electrical spikes, surges, electric shocks, lightning strikes, etc. Use of surge protection is highly recommended 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 minimize 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 the main power cables.
- Do not substitute or use any 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-63U1A-XR is a USB 3.2 Gen 1 USB-A extender allowing for a single USB-A 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

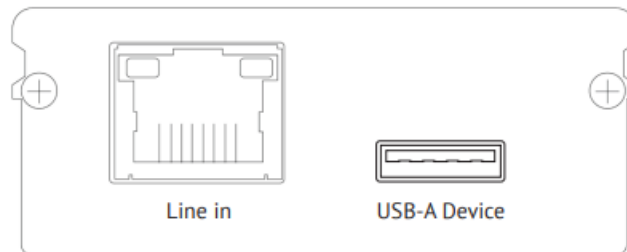
- Uncompressed USB 3.2 Gen 1 extension of USB data up to 100m over a single Cat6A (or above)
- 1x USB-A channel for up to 5Gbps data connectivity of USB-A devices across the links
- Flexible USB extension for: USB-A PTZ cameras, hard drives, laptops, and other USB-A peripherals
- Bi-directional RS-232 serial pass-through

## Connectivity Overview

### Connectivity Overview – Device

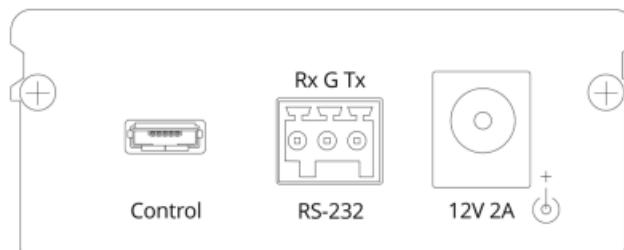
#### Front panel:

- Cat6A (or above) Link – connect to the Cat cable from the receiver
- USB-A – connect USB-A peripheral



#### Back panel:

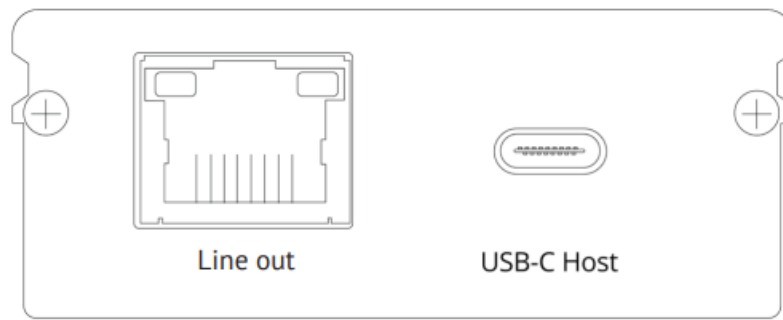
- Control – Micro USB for firmware and control (reserved for future use)
- RS-232 – use the supplied 3-pin Phoenix connector to connect to the serial device
- Power – connect to 12V/2A DC power supply



### Connectivity Overview – Host

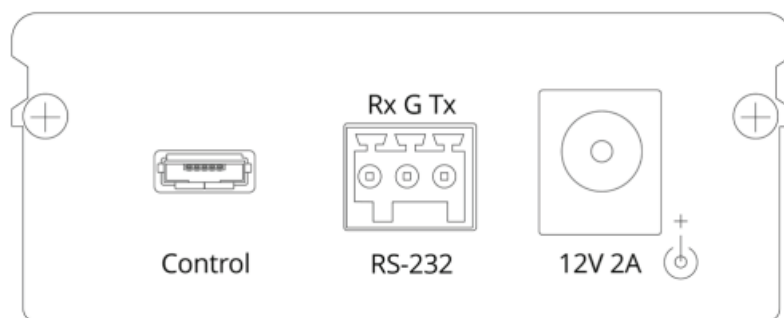
#### Front panel:

- Cat6A (or above) Link – connect to the Cat cable from the device
- USB-C – connect USB-C host



### Back panel:

- Control – Micro USB for firmware and control (reserved for future use)
- RS-232 – use the supplied 3-pin Phoenix connector to connect to the 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 LEDs.

- 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.

### Category Cabling for Extenders

The interconnecting Cat cable between the MSolutions products must be terminated using the correct RJ45 pin configuration. The link Cat cable must be a 'straight' (pin-to-pin) Cat 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 Cat cables it is advised that the best possible Cat 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-A 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-A 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 a driver on the extender kit. A maximum

combined data transfer of 5Gbps can be achieved over the link. The Micro-USB connections on both Host and Device units are utilized for firmware updating and are reserved for future CloudOS control.

## **RS-232 Control**

The MS-63U1A-XR 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 for serial pass-through. The link can transparently send any type of serial data as both pieces of equipment can communicate using the same baud rate, stopgap, and parity.

## **Power**

12V 2A DC power connections on both Host and Device. Please only use the supplied 12V/2A DC PSUs supplied with the MSolutions MS-63U1A-XR to power the unit.

## **Specifications**

### **Device**

- USB-A connectivity: 1 x USB-A (female peripheral)
- USB control: 1 x Micro USB (female)
- RS-232 connectivity: 1 x 3-pin Phoenix connector, block included
- Power supply (PoC): 1x 12V/2A DC
- Individual unit dimensions (W x D x H): 60 x 84 x 25mm
- Individual unit weight: 0.2kg
- 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% noncondensing

### **Host**

- USB-C connectivity: 1 x USB-C (female) – host
- USB control: 1 x Micro USB (female)
- RS-232 connectivity: 1x 3-pin Phoenix connector, block included
- Power supply (PoC): 1x 12V/2A DC
- Individual unit dimensions (W x D x H): 60 x 84 x 25mm
- Individual unit weight: 0.2kg
- 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% noncondensing

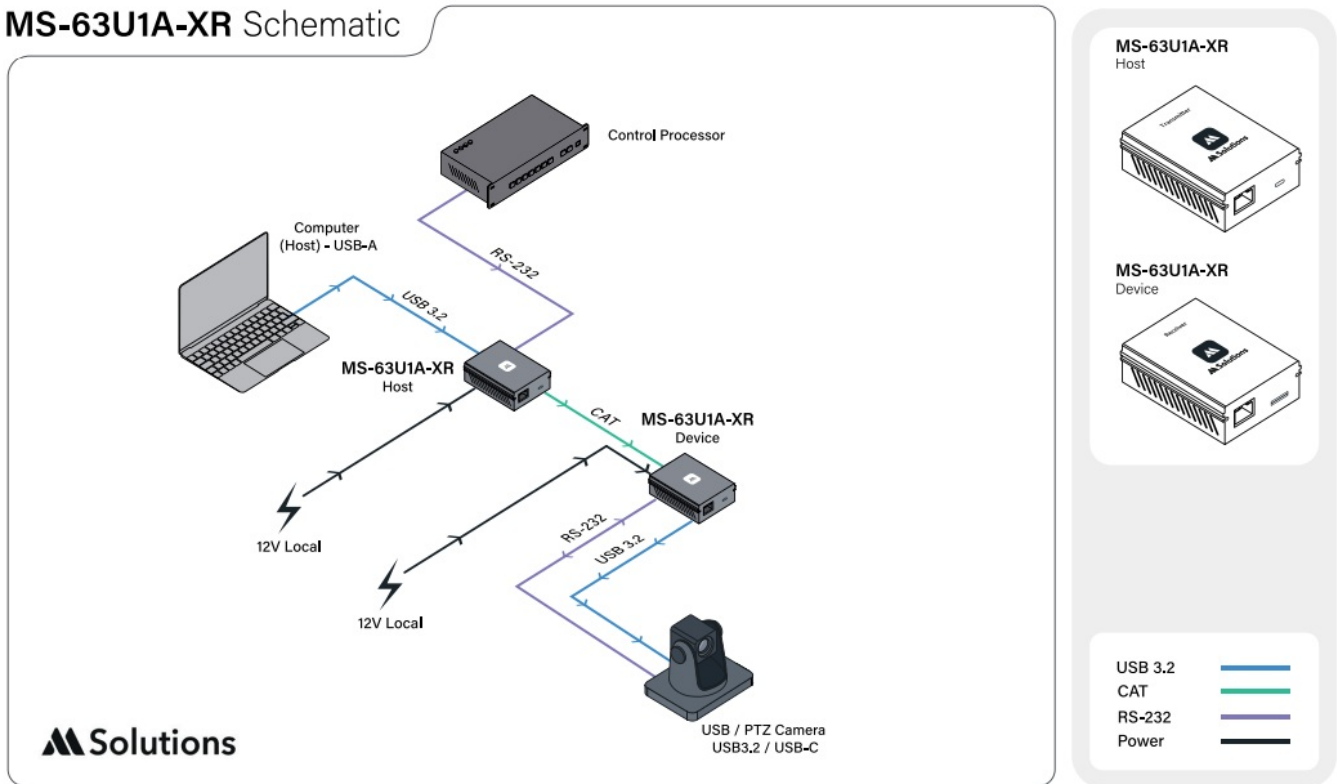
## **Package Contents**

- 1x MS-63U1A-XR Host
- 1x MS-63U1A-XR Device
- 2 x 12V / 2A DC power supply with US, UK, and EU clips
- 1 x USB-C (male) to USB-A (female) cable

- 2 x 3-pin Phoenix connector blocks
- 2 x Surface mounting brackets

## Schematic


### MS-63U1A-XR Schematic



## CONTACT INFORMATION

- [support@m4sol.com](mailto:support@m4sol.com)
- [www.m4sol.com](http://www.m4sol.com)

## Documents / Resources

 <p><b>M Solutions</b> User Guide MS-63U1A-XR USB Type A Extender Set, up to 100m, for extending USB 3.2 Gen 1</p>	<p><a href="#">M SOLUTION MS-63U1A-XR USB Type A Extender Set</a> [pdf] User Guide MS-63U1A-XR USB Type A Extender Set, MS-63U1A-XR, USB Type A Extender Set, Type A Extender Set, Extender Set</p>
---	---

## References

- [M Solutions - Pro AV Solutions, HDBaseT Products and Tools!](#)
- [User Manual](#)