



## DisplayPort over IP EXTENDER



**Manual**  
DS-56200 • DS-56201

# 1. Introduction

Thanks for purchasing the DS-56200 **DisplayPort over IP Extender** (DS-56201 receiver only). We recommend that you read this manual thoroughly and retain for future reference.

## Features

The DisplayPort over IP Extender allows you to extend video and audio up to 100 meters distance between source or computer and monitor or projector. With the built-in video and audio signals enhancement, you can gain the best video resolution quality and audio stereo sound while listening, and no any additional software needed. Furthermore, the installation and operation are easily more than expected. With using in extension facilities of video and audio, this product, The DisplayPort over IP Extender, delivers worthy of performing efficiency and value-added.

- Support DisplayPort 1.1
- With Expandable Receiver, each Receiver Unit with cascade function enables to link two other (2) Receiver Units consecutively extending another 100m distance, and continue expanding corresponding to custom demand as likely Cascade/Tree Chain web architecture spread.
- Uses easy to install, inexpensive CAT. 5e/6 cables
- Each pair (TX & RX) extends the signals up to 100m (330 feet) using 1-to-1 connection
- Uses network environment for transmission
- Supports video high resolution up to 1920x1080@60Hz, Full HD 1080p
- HDTV compatible (720p, 1080i, 1080p)
- Supports Stereo 2.0
- Cascaded-chainable receiver up to 10 layers
- Supports RS-232 (Serial)
- IR (Infrared remote) enabled
- Support local DisplayPort monitoring port
- Each receiver (remote) links cascade-chainable 2 receivers
- Support VGA(DS-53201) and HDMI (DS-55201) receiver
- Rack mountable

## Package Contents

### DS-56200

- DisplayPort Extender Transmitter x 1
- DisplayPort Extender Receiver x 1
- Power Adaptor DC 5V x 2
- User Manual x 1

### DS-56201

- DisplayPort Extender Receiver x 1
- Power Adaptor DC 5V x 1
- User Manual x 1

## Specification

			Transmitter	Receiver
Console Connectors	DisplayPort Output		DisplayPort (Female)	DisplayPort (Female)
	RS-232 Control Port		Phone Jack	Phone Jack
PC Connectors	DisplayPort Input		DisplayPort (Female)	N/A
Extension Port	RJ-45		Full HD Video / Audio Extension	
RJ-45			1 (Line Out)	3 (Line In or Line Out)
Cascaded-Chainable			N/A	up to 10 layers
Audio			Supports High Definition Audio (HD) , Surround Sound	
IR			Uni-directional (from RX to TX)	
RS-232			Bi-directional	
LED Indicators	Local	Power	Red LED	
		Link	Red Green	
	Remote	Power	Red LED	
		Link	Red Green	
DDC Supported			DDC, DDC2, DDC2B	
Extension Cable Type & Length			CAT.5e / CAT.6 Max. Length: 100m	
Max. Video Resolution			1920x1080@60Hz, Full HD 1080p, 48-bit	
Wide Screen Supported			Yes	
OS Compatibility			Windows, Mac, Linux, Sunmicro systems	
Power Supply			External DC 5V / 2A Power Adapter	
Dimension ( L x W x H )			115 x 91 x 28 mm	
Weight			340g	380g
Housing material			Metal	
Operating Temperature			32 - 122 ° F ( 0 - 50 ° C )	
Humidity			0% - 80% RH	

## 2. Detail and Diagram

### Detail Picture



**Transmitter (TX)-Front**



- ①: Connected to Power Adapter DC 5V/2A
- ②: Power LED (Solid Red when power present)
- ③: Link LED (Solid Green when link present)
- ④: DisplayPort In, connected to DisplayPort source
- ⑤: DisplayPort Out, connected to local Monitor

**Transmitter (TX)-Rear**



- ⑥: Audio Out, connect to speaker
- ⑦: Cat.5e/6 cable connected for data out
- ⑧: IR Blaster /Emitter
- ⑨: RS-232 control port
- ⑩: Reset Button

**Receiver (RX)-Front**



- ①: Connected to Power Adapter DC 5V/2A
- ②: IR Receiver
- ③: Reset Button
- ④: Power LED (Solid Red when power present)
- ⑤: Link LED (Solid Green when link present)

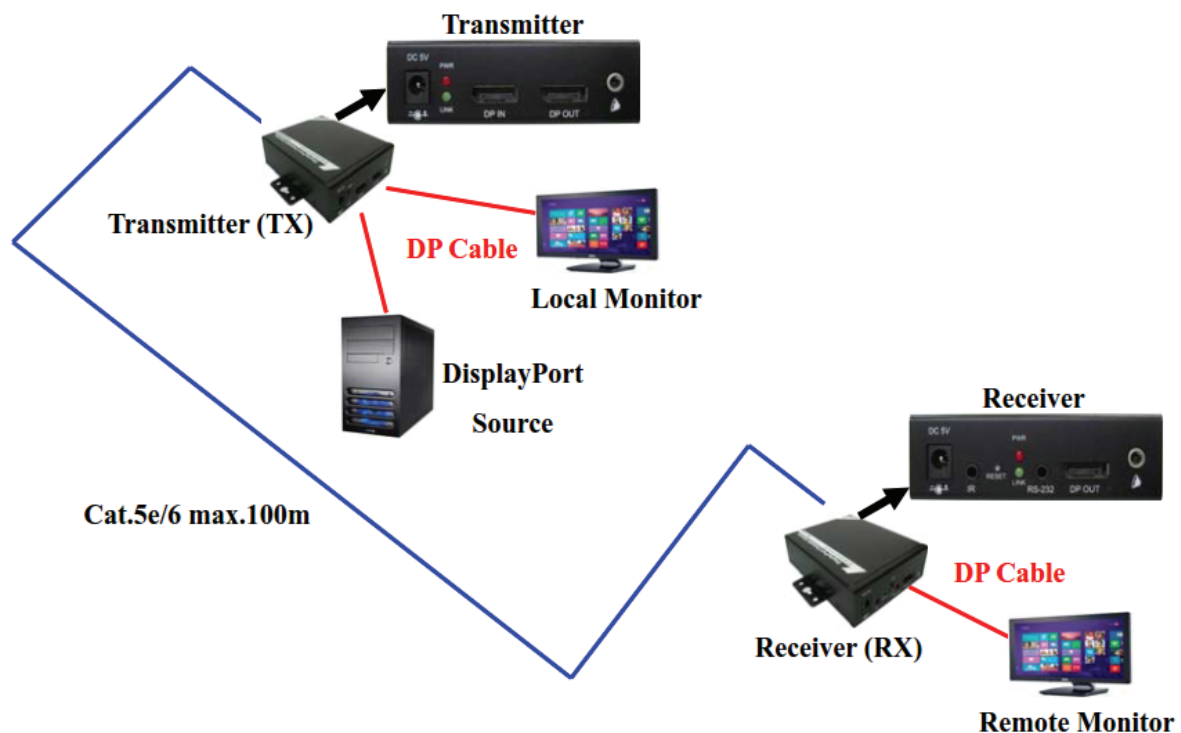
**Receiver (RX)-Rear**



- ⑥: RS-232 control port
- ⑦: DisplayPort Out, connected to remote Display
- ⑧: Audio Out, connect to speaker
- ⑨: CAT.5e/6 cable connected for data in or out for either one, or another 2 x Receivers connected for expanded chaining link.

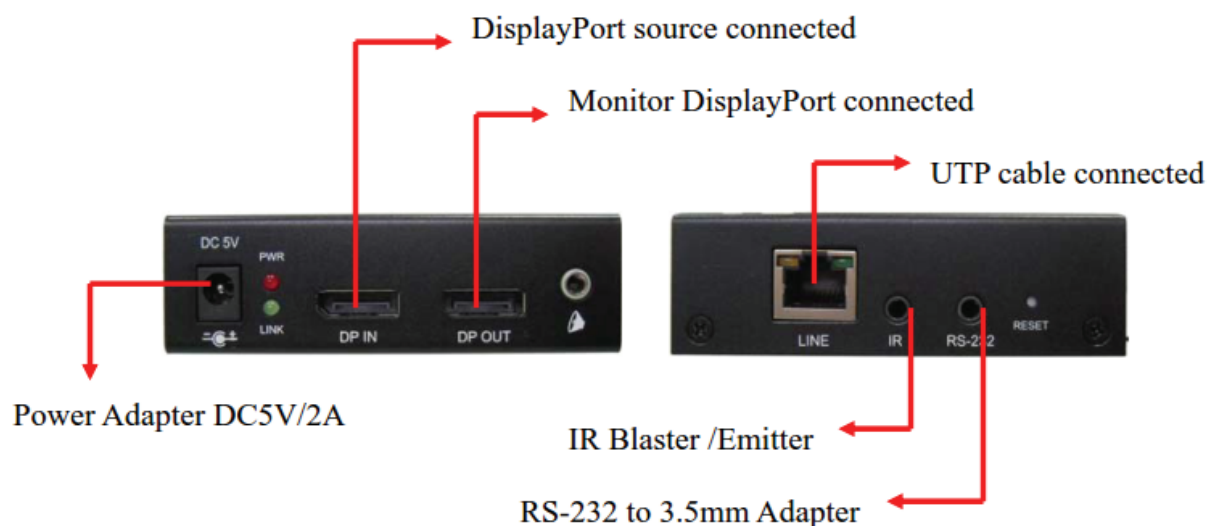
## Application Diagram

### 1-to-1 connection



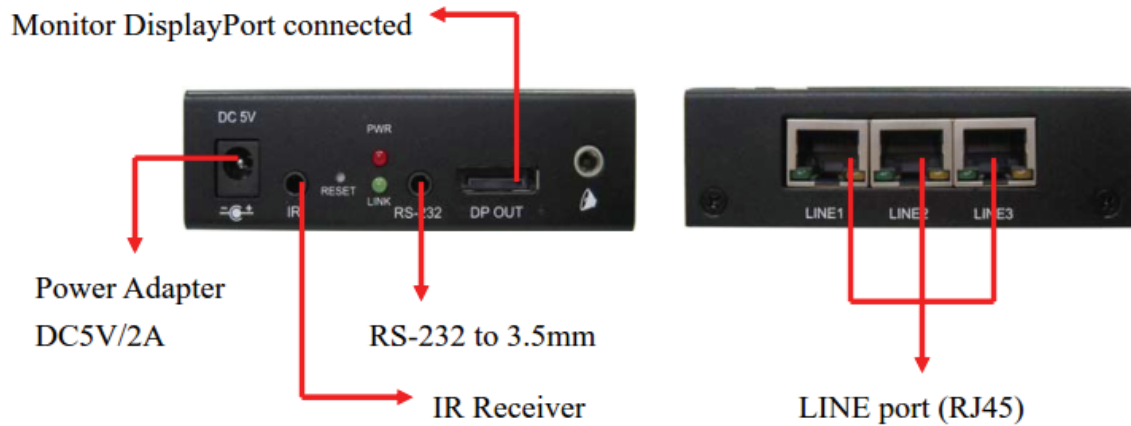
### Transmitter Installation

- Connect UTP Cable to Transmitter, please use CAT.5e/6 Cable
- Connect the IR Blaster Emitter cable or RS-232 to 3.5mm adapter to the Transmitter Unit IR Port or RS-232 control port if necessary.
- Connect Transmitter with DisplayPort cable to DisplayPort connector of DisplayPort source
- Connects Transmitter with DisplayPort cable to DisplayPort connector of Monitor if necessary
- Plug DC 5V/2A power adapter



## Receiver Installation

- Connect UTP Cable to Receiver, please use CAT.5e/6 Cable
- Connect the IR Receiver cable or RS-232 to 3.5mm adapter to the Receiver Unit IR Port or RS-232 port if necessary
- Connect Receiver with DisplayPort cable to DisplayPort connector of Monitor
- Plug DC 5V/2A power adapter

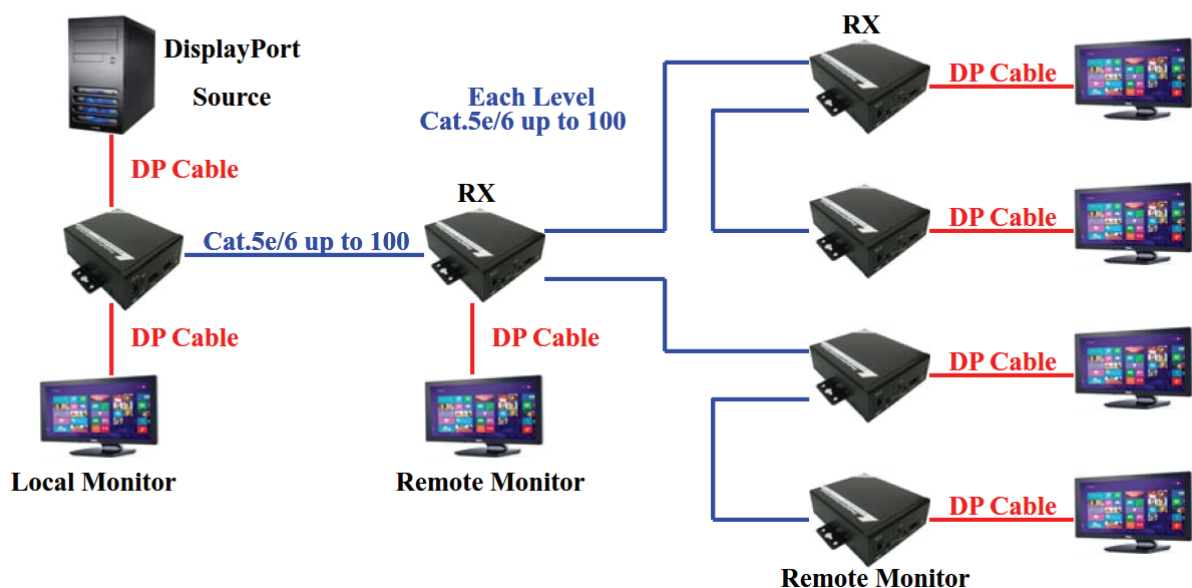


## Cascade Chain Connection

1. Plug DC 5V/2A power adapter.
2. Use UTP Cable connected with Receiver to link the other two (2) Receiver Units consecutively to extend another 100m distance, the cable connector node is to connect to Receiver LINE1 or LINE2 or LINE3 port (RJ45), as long as the LINE port is not occupied, and user can continue expanding corresponding to custom demand as likely Cascade/Tree Chain web architecture spread.
3. Connect the IR Receiver cable or RS-232 to 3.5mm adapter to the Receiver Unit IR Port or RS-232 port if necessary.
4. Connect Receiver with DisplayPort cable to DisplayPort connector of Display Monitor.

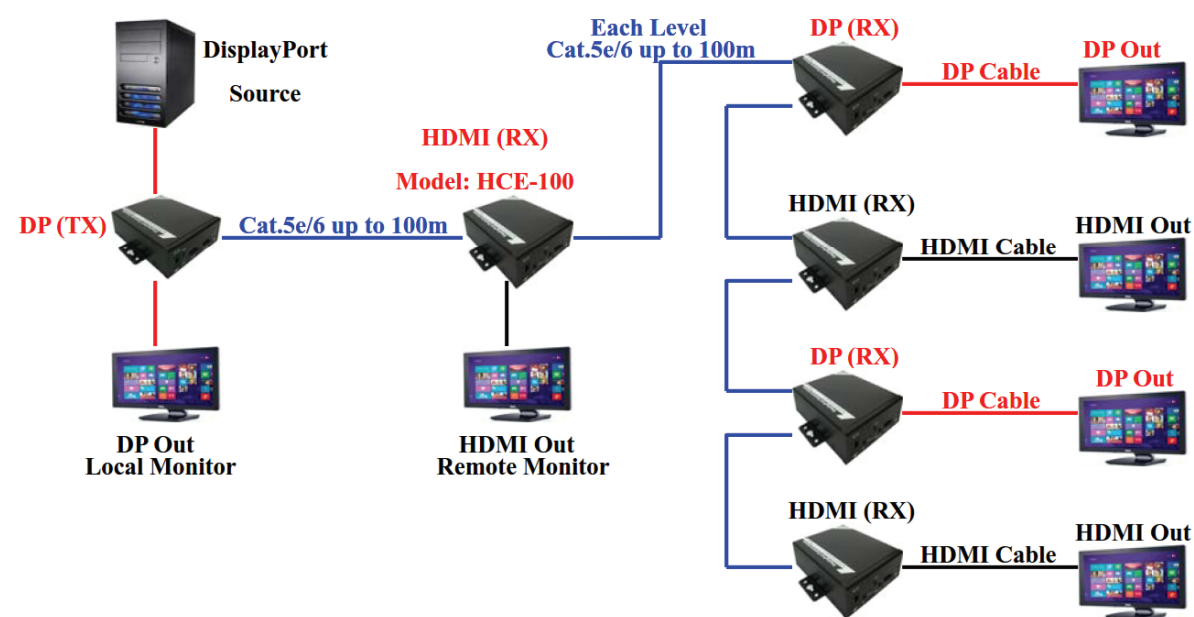
Each Receiver with three (3) Line port, one is used for source input, and the other two are used for expanding source to other receivers. User can choose any LINE port as source input at random, and use the other two LINE port for expanding source to next tier receiver as long as the LINE port is not occupied.

## Cascaded Chain Diagram

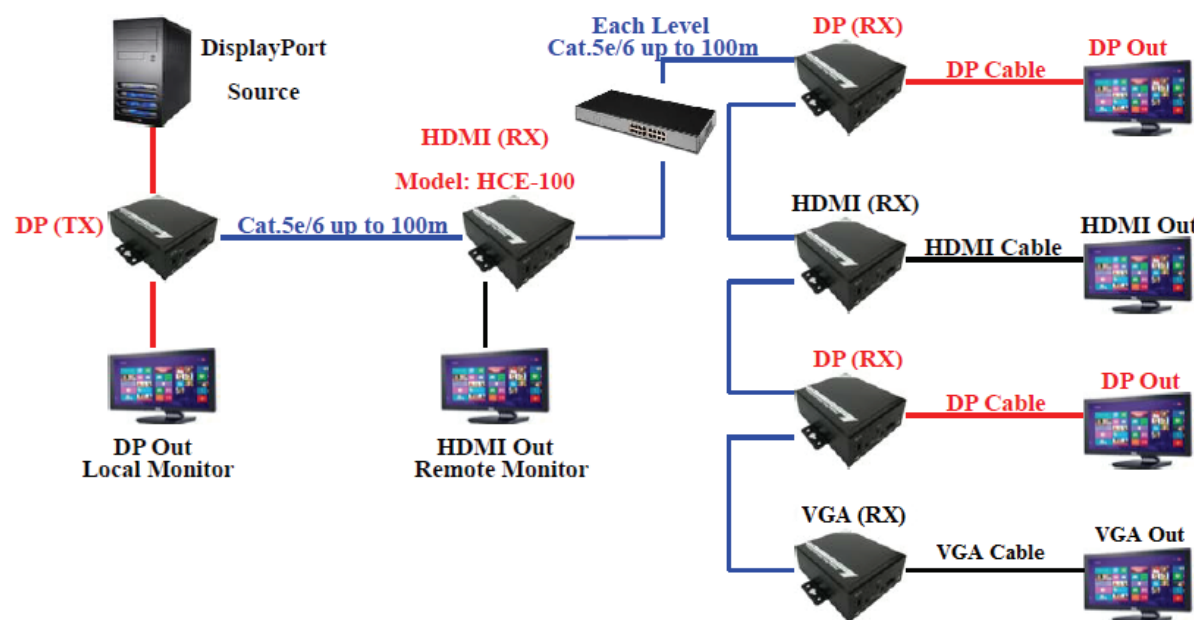




Cascaded and Compatible with HDMI receiver



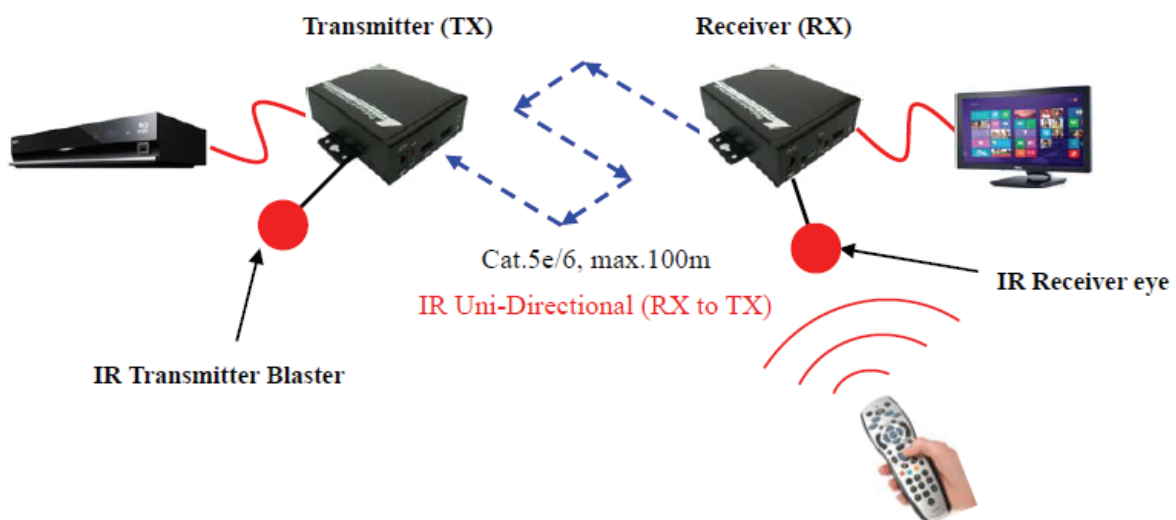
Cascaded and mixed with VGA / HDMI / DisplayPort





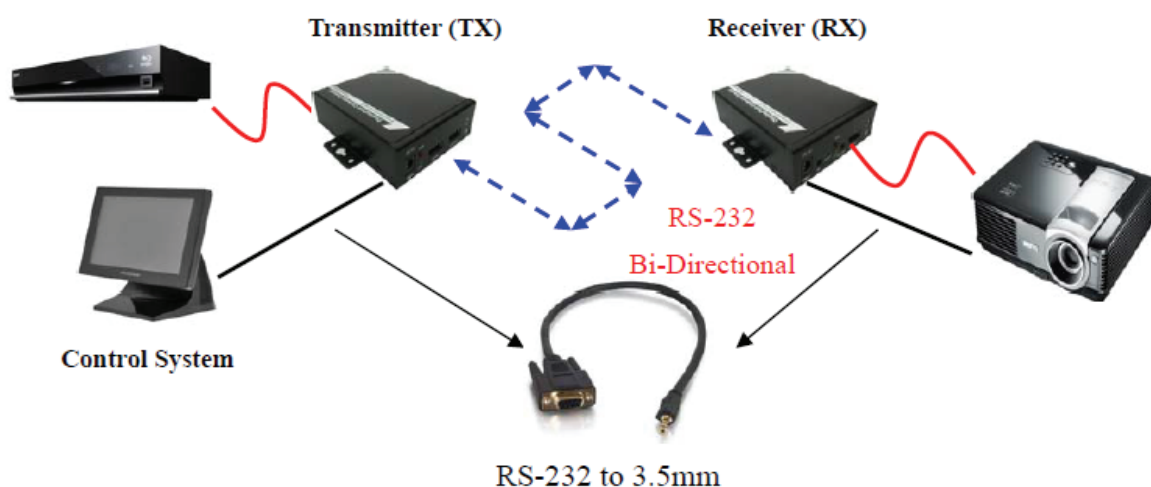
## IR Bypass Function Connection

- Connect the IR Transmitter (or Emitter) cable to the IR Connector on the DisplayPort Transmitter Unit (TX)
- Connect the IR Receiver cable to the IR Connector on the DisplayPort Receiver Unit (RX)
- Place the IR Eye of the IR Receiver cable near the Remote Controller
- Place the IR Blaster of the IR Transmitter cable near the device that intend to be controlled by the Remoter controller



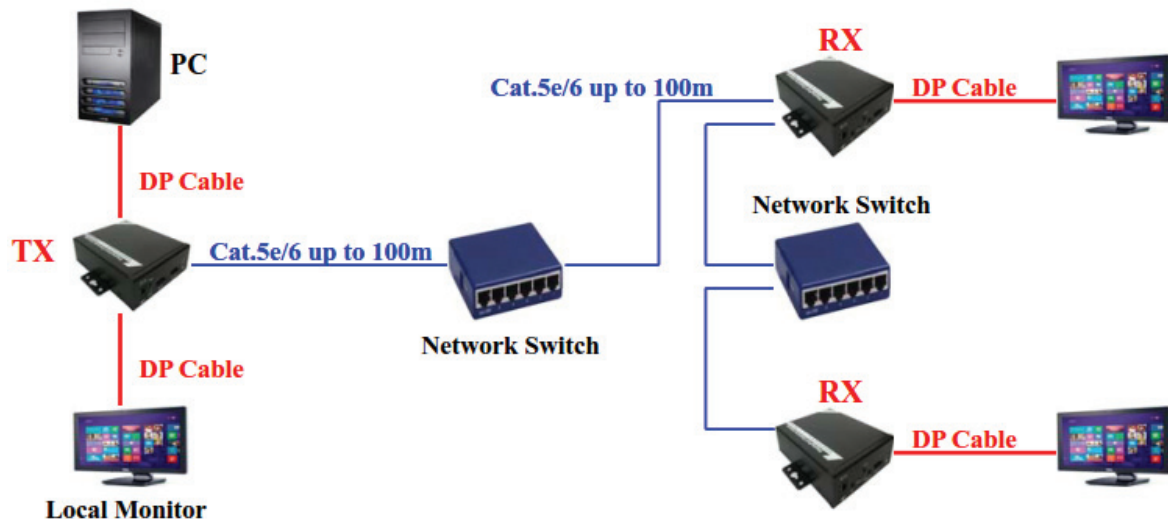
## RS-232 Bypass Function Connection

- Connect the device, such as a PC, projector...etc, to the RS-232 port of the DisplayPort Transmitter Unit or DisplayPort Receiver Unit via a RS-232 to 3.5mm adapter
- Connect the controlling device to the RS-232 port of the DisplayPort Receiver Unit or DisplayPort Receiver Unit via a RS-232 to 3.5mm adapter



## Hub Extend Function Connection

- The maximum distance between each tier could be up to 100 meters long, while this could be extended through Network Switch. User can add one Network Switch to extend another 100 meters.
- The more Network Switches, the longer distance extended. The number of Network Switches is as many as user want.



Note: In case of incorrect installation and improper use in a residential area, the interference to radio devices and other electronic devices could be caused. It is recommended to use the device where applicable with shielded cables (also shielded with networking products of cable Category 5e and higher). The device was tested to comply with the limits for Computer and IT accessories of Class A according to the requirements of EN 55022.

Warning: This product complies with the test class A - It may be used in the living area but could cause radio interference; in this case, it may be demanded by the operator to take appropriate corrective action at his/her own expense. Declaration of Conformity: The device meets the EMC requirements according to EN 55022 class A and EN 55024 for ITE category with external or built-in power supply to meet the requirements of EN 61000-3-2 and EN 61000-3-3 according to the EMC Directive 2004/108/EC. The declaration of Conformity can be requested by post at the following manufacturer address.

**www.assmann.com**  
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Germany

