

# DisplayPort CAT5e Extender Series

## ITEM NO.: DP02U DisplayPort KVM with USB/RS232 CAT5e Extender



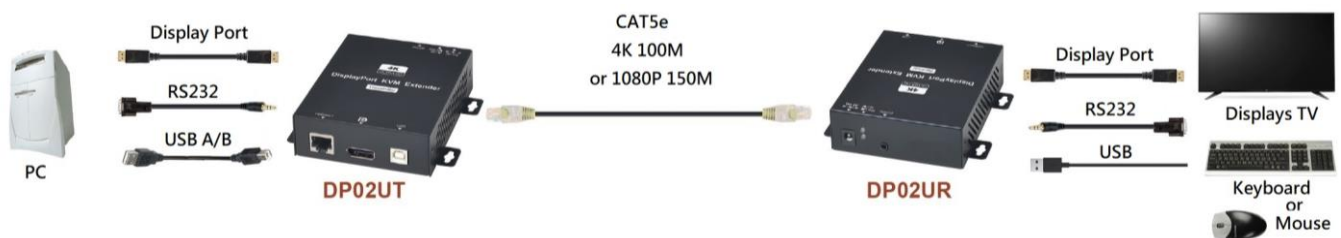
DP02U DisplayPort CAT5e Extender is based on HDBaseT technology using only one cost effective CAT5e/6 cable to extend your DisplayPort signal with USB, Bi-directional RS232 up to 150 meters at 1080p, support up to 4K UHD at 100M. It is an ideal solution for extending PC/laptop to a display output to a projector/monitor application.

### DP02U 4K DisplayPort KVM with USB/RS232 CAT5e Extender

#### Features:

- Extends DisplayPort signal with USB/RS232 over one CAT5e/6 cable.
- DP 1.2a. HDCP compliant.
- Uncompressed high definition video up to 4K UHD.
- Support long reach mode distance up to 150M at 1080p@60Hz.
- Support 4K UHD at 100M.
- Audio supports up to LPCM 7.1 @ 192KHz, Dolby TrueHD, DTS-HD MA
- USB support USB 2.0 and USB 1.0 and 1.1.
- Bi-Directional RS232.

#### Installation:



#### LED Indication :

Color	Status	DP02UT	DP02UR
GREEN	ON	Power on	
BLUE	LINK	ON : LINK Normal, Flash : Power Saving Mode Power Saving Mode : When DP02UT no video input or DP02UR not connect any devices, DP02U will enter a Power Saving Mode to save power consumption. Under power saving mode RS232 and USB function will not be activated.	

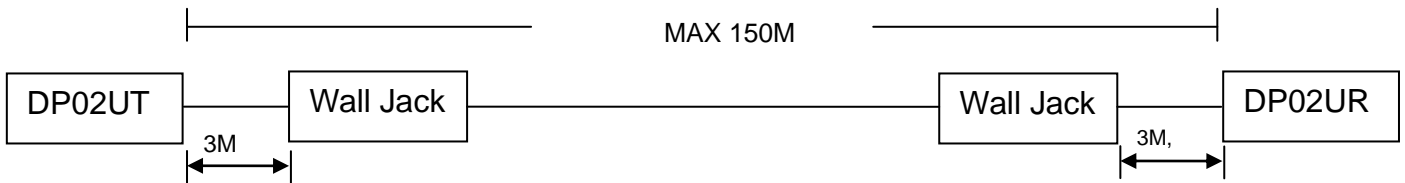
## Cable:

Link cable recommend use high quality CAT.5e 、CAT.6 、CAT.6a 、CAT.7 UTP/STP or FTP cable. Poor quality cable or network connection or improper construction will cause unstable connection, video or sound disruptions, picture noise appears.

## Distance chart by different cable:

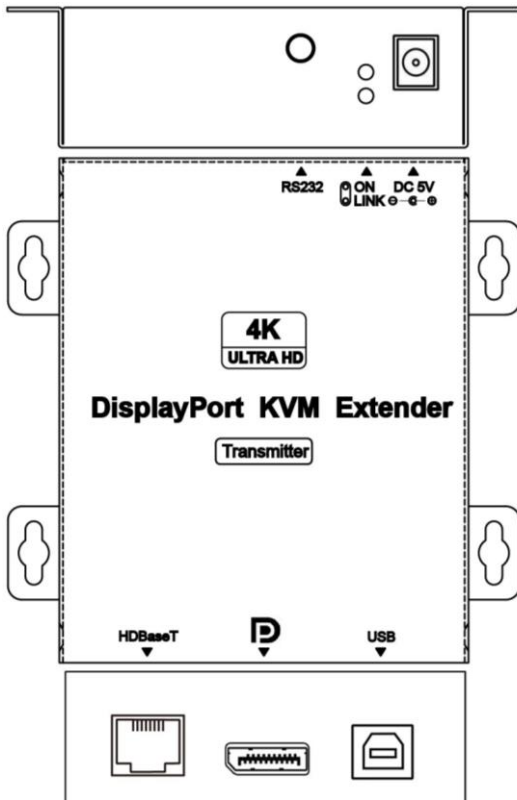
Cable Type	Range	Supported Video
CAT5e / CAT6/CAT6a/CAT7	150M	Long Reach Mode Up to 1080p 60Hz 8bit
CAT5e / CAT6	100M	Up to 1080p 60Hz 12bit
CAT5e	90M	1080p 60Hz 16bit Up to 4096x2160@30Hz 4:4:4 4096x2160@60Hz 4:2:0
CAT6/CAT6a / CAT7	100M	

If connection through the wall socket, the DisplayPort cable length between DP02U and Wall Jack must be less than 3 meters, recommend connections below drawing:

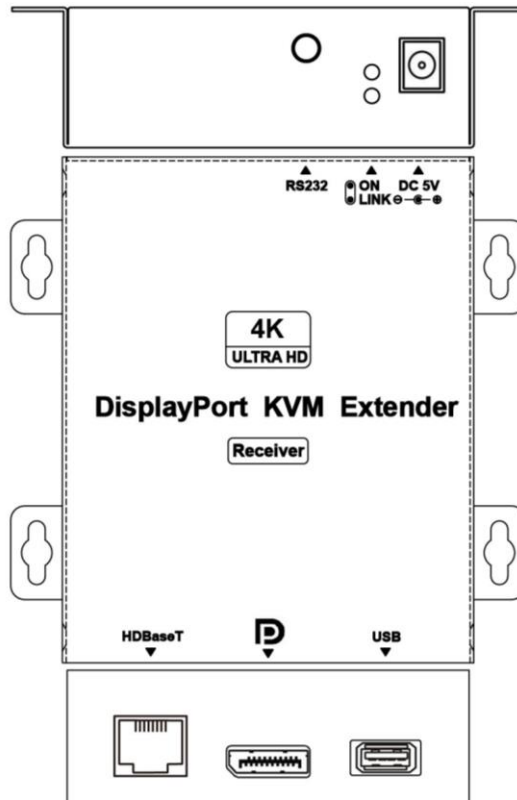


## Panel view:

### DP02UT



### DP02UR



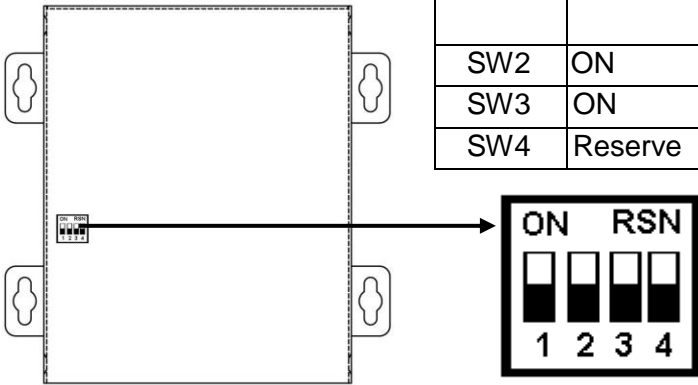
## RJ45 Define:

### Video Link (TIA/EIA-568-B)

- |                 |         |
|-----------------|---------|
| 1. Orange-white | DATA0 + |
| 2. Orange       | DATA0 - |
| 3. Green-white  | DATA1 + |
| 4. Blue         | DATA2 + |
| 5. Blue-white   | DATA2 - |
| 6. Green        | DATA1 - |
| 7. Brown-white  | DATA3 + |
| 8. Brown        | DATA3 - |

## Switch Function:

Switch	Function			
SW1	ON	Long Reach Mode (Resolution support 1080p/60Hz/8Bits only)	OFF	Normal mode
SW2	ON	Reserve	OFF	RS232 Extension
SW3	ON	Firmware Update	OFF	
SW4	Reserve			

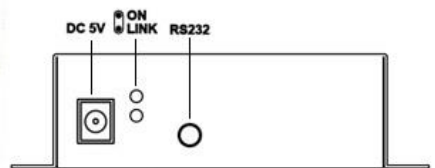


## RS232 Define:

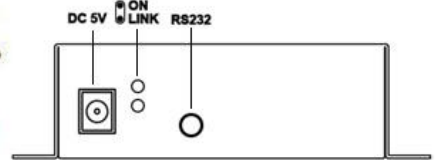
### DB9(F)/3.5mm STEREO PHONE JACK



### DP02UT



### DP02UR



### DB9(F)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	TX	Pin 1	RX
Pin 3	RX	Pin 2	TX
Pin 5	GND	Pin 3	GND

### DB9(M)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	RX	Pin 1	RX
Pin 3	TX	Pin 2	TX
Pin 5	GND	Pin 3	GND

**Caution:**

This device not support MST (Multi Stream Transport) hub function based on DP1.2

**Trouble Shooting:**

1. The wiring must away from any equipment with electromagnetic wave, i.e.: mobile phone, microwave, radio equipment, fluorescent lamp, high voltage power lines.
2. The cable must pull in straight to avoid any crosstalk interference and the transmission stability.
3. This device HDBaseT port is not general Ethernet signal; do not connect with Network devices to avoid damage.
4. Recommend to use STP or FTP cable for wiring if the installation environment with interference issue or multiple DP02U used.

**DP02U Package Include:**

DP02UT Transmitter x 1 pcs  
 DP02UR Receiver x 1 pcs  
 USB A/B cable x 1 pcs  
 DB9 (M)/3.5mm STEREO PHONE JACK x 1  
 DB9 (F)/3.5mm STEREO PHONE JACK x 1  
 Mounting Screw pack x 2 bags  
 DC5V 2Amp Power Adapter x 2 pcs

**Specification:**

ITEM NO.	DP02UT	DP02UR
DP Input Interface	1	x
DP Output Interface	x	1
HDMI Video Support	1080p@60Hz 48bits ,3D, 4K/30Hz/4:4:4 and 4K/60Hz/4:2:0	
HDMI Audio Support	Up to 7.1 LPCM 192KHz / Dolby TrueHD / DTS-HD MA	
HDBaseT Connector	RJ45 x 1	
HDBaseT Distance	4K 100M, 1080P 150M (Long Reach mode)	
RS-232 Interface	DB9(F)/3.5mm STEREO PHONE JACK	DB9(M)/3.5mm STEREO PHONE JACK
RS-232 Baud Rate	115200 bps / full duplex	
USB input/output	USB Type B x 1	USB Type A x 1
Power Consumption	Max: 5W, Power saving mode: 1W	Max: 6W, Power saving mode: 1W
Power Adapter	Regulated DC 5V/2A	
Temperature	Operation: -10 to 45°C, Storage: -30 to 75°C, Humidity: up to 95%	
Dimensions mm	109.6 x 109.4 x 30	
Weight g	265	265



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