

EXP-DP-5000

4K/60hz DisplayPort Extender 100M-KVM



User Manual

Version: 20241024

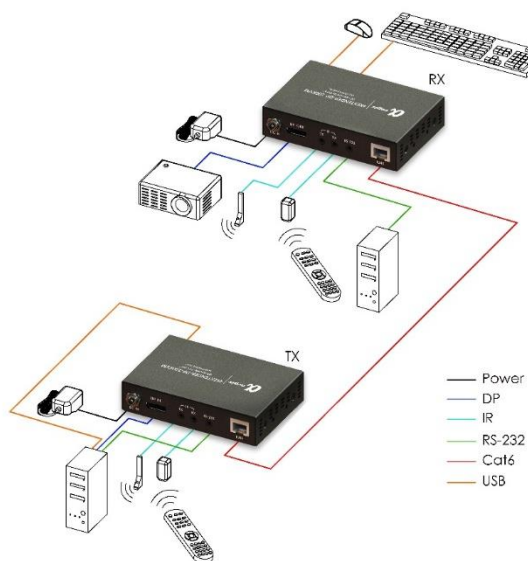
Introduction

aegis DisplayPort Extender using AVT technology, is able to extend DisplayPort signal over just one qualified 100 Ohm Cat.6 (or up) cable with no signal compression. It can extend DisplayPort signal up to 100 meters and support resolution up to 3840x2160@60Hz. Please make sure the DP input/output directly connect with DP source and DP monitor.

Features

- Audio and video are transmitted digitally over CAT.6 (or up) cable without signal loss.
- Range: 100 meters with 4K2K resolution.
- Compliant with DP1.2a, main link configuration
- HDCP Support 1.3
- HBR2/HBR/RBR link rate
- 1, 2, or 4 lanes
- Support Connect USB type Keyboard & Mouse
- Support Bidirectional IR/RS-232 pass-through

STRUCTURE DIAGRAM



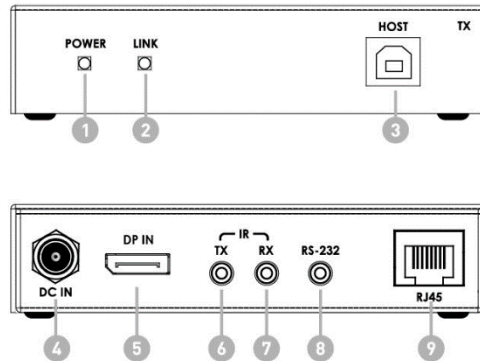
Specification

Model No	4KEXTENDER-DP-100TX	4KEXTENDER-DP-100RX
DisplayPort Bandwidth	21.6Gbit/s (High Bit Rate 2 (HBR2) mode)	
DisplayPort Resolution	720P, 1080P/24, 30, 50, 60Hz, 4Kx2K/24, 30, 60Hz.	
Audio Format	2 Channel 16/20/24bit PCM at 32/44.1/48KHz IEC 61937 Compress audio with IEC 60958 frame rate at 2/44.1/48KHz, up to 8 channels. IEC Compressed audio format.	
HDCP	1.3	
Input Port	DisplayPort x 1	RJ45 x 1 - Cat.6/6e/7
Output Port	RJ45 x 1 - Cat.6/6e/7	DisplayPort x 1
Control Port	IR Blaster x 1 - 3.5mm IR Receiver x 1 - 3.5mm RS232 x 1 - 3.5mm	
	USB 2.0 Type B x 1	USB 2.0 Type A – Keyboard USB 2.0 Type A – Mouse
IR Frequency	20-60Khz	
Baud Rate	Up to 115200 bps	
Cable Distance	4k/60Hz 8bit 4:4:4 Cat.6 100M (MAX.)	
Power Supply	15VDC / 2.4 Amp (US,UK,EU,AU Power Plug)	
Power Consumption	36W - Max.	

Chassis Material	Metal
Chassis Color	Black
Operating Temperature	0°C - 40°C / 32°F - 104°F
Storage Temperature	-20°C - 60°C / -4°F - 140°F
Humidity	10 - 85% RH (Non-Condensing)
Dimension LxWxH	4.33 in (110 mm) X 2.95 in (75 mm) X 0.98 in (25 mm)
Weight	270 g

Product Diagram

Transmitter Panel

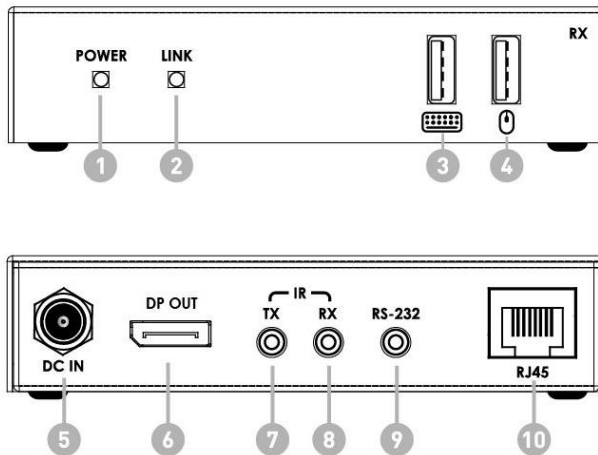


TRANSMITTER



No.	Interface Name	Functional description
1	Power LED	This LED will illuminate when power adapter plug in Transmitter.
2	Link LED	This LED will illuminate when Transmitter connect compatible Receiver and all signal start to transmission.
3	HOST	Connect to USB devices, such as Computer and Laptop.
4	DC IN	48V DC / 0.5 Amp Locking Power Jack.(choose either Tx or RX)
5	DP IN	Connect to DisplayPort source devices.

6	IR TX	Transmitting IR signal to remote control DisplayPort source devices via IR Blaster Cable.
7	IR RX	Receiving IR signal to remote control DisplayPort sink devices via IR Receiver Cable.
8	RS-232	Connect to a Computer, Laptop and other serial control device via 3.5mm to RS232 Cable.
9	RJ45	Connect to Receiver with single Cat.6 cable for DisplayPort, IR Blaster, IR Receiver and RS232 signal transmission.

Receiver Panel

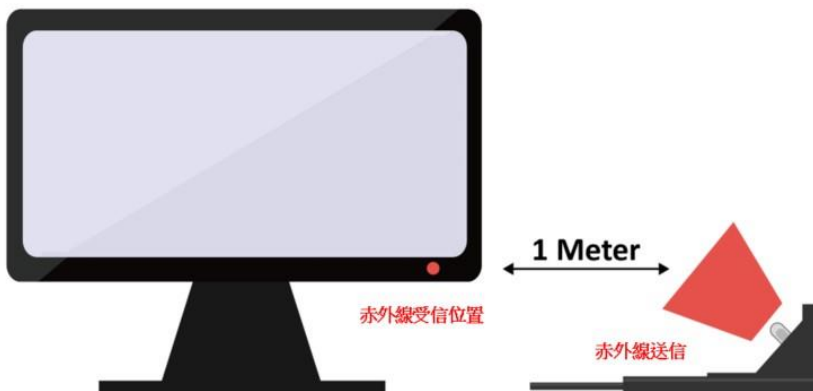


RECEIVER

No.	Interface Name	Functional description
1	Power LED	This LED will illuminate when power adapter plug in Receiver.
2	Link LED	This LED will illuminate when Receiver connect compatible Transmitter and all signal start to transmission.
3		Connect USB type Keyboard
4		Connect USB type Mouse

5	DC IN	48V DC / 0.5 Amp Locking Power Jack. (choose either Tx or RX)
6	DP OUT	Connect to DisplayPort sink devices.
7	IR TX	Transmitting IR signal to remote control DisplayPort sink devices via IR Blaster Cable.
8	IR RX	Receiving IR signal to remote control DisplayPort source devices via IR Receiver Cable.
9	RS-232	Connect to a serial control device via 3.5mm to RS232 Cable.
10	RJ45	Connect to Transmitter with single Cat.6 cable for DisplayPort, IR Blaster, IR Receiver and RS232 signal transmission.

IR Pin Assignment



For best performance, place the infrared emitter close to the display receiver.



For best reception, make sure the area around the receiver is free of obstructions.

RS232 Pin Assignment



Cable Specifications

Cable Length	1080p/60Hz	4K/30Hz	4K/60Hz
	8 bit	8 bit 4:4:4	8 bit 4:4:4
HDMI Cable	10m	5m	2m
Cat.5e/6/6e/7	140m	120m	100m

Resolution Specifications

Supported Resolutions (Hz)
800x600p@60 75
1024x768@60
1152*864@60
1280x720p@50 60
1280x800p@60 75
1280x1024@60 75
1360x768@60
1366x768p@60
1400*1050@60
1440x900p@60
1600x1200p@60
1680x1050p@60
1920x1080i@50 60

1920x1080p@24 30
1920x1080p@50 60
1920x1200p@60
2048x1080p@60
2560x1080p@60
2560x1440p@60
2560x1600p@60
3840x2160p@50 60 Hz (4:2:0)
3840x2160p@24 30 Hz (4:4:4)
3840x2160p@50 60 Hz (4:4:4)