User Manual



EXP-DP-5000

4K/60hz DisplayPort Extender 100M-KVM



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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

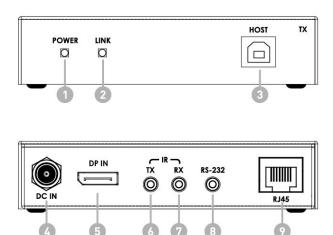
PACKAGE CONTENTS

- DisplayPort Transmitter x 1
- DisplayPort Receiver x 1
- 48V DC / 0.5 Amp Locking Power adapter x 2 PCS
- 3.5mm to RS232 Cable x 2 PCS

DEVICE DRAWING:

4K/60Hz DisplayPort Extender 100M-KVM

Transmitter (TX)

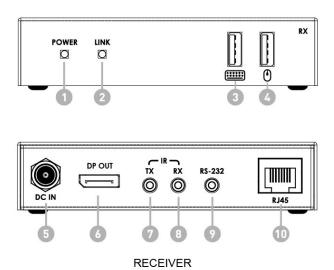


TRANSMITTER

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.

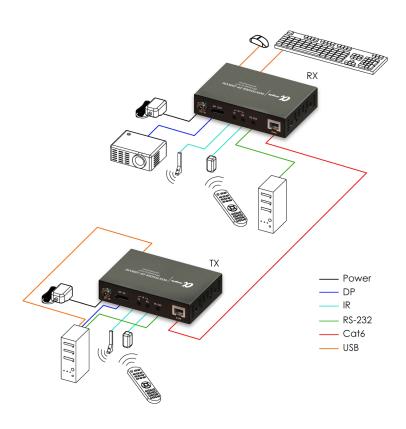
4K/60Hz DisplayPort Extender 100M-KVM

Receiver (RX)



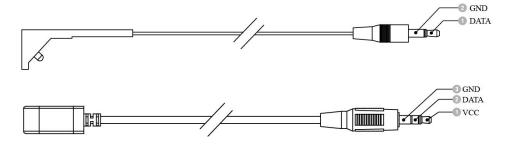
No.	Interface Name	Functional description
1	Power LED	This LED will illuminate when power adapter plug in Receiver.
2	Link LED	This LED will illuminate when Receiver connect compatible Transmitter and all signal start to transmission.
3		Connect USB type Keyboard
4	O	Connect USB type Mouse
5	DC IN	48V 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.

CONNECTION DIAGRAM

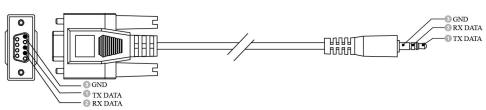


CABLE DEFINITION:

IR Pin Assignment



RS232 Pin Assignment



SPECIFICATIONS:

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, 60	720P, 1080P/24, 30, 50, 60Hz, 4Kx2K/24, 30, 60Hz.		
	2 Channel 16/20/24bit I	2 Channel 16/20/24bit PCM at 32/44.1/48KHz		
Audio	IEC 61937 Compress audio v	IEC 61937 Compress audio with IEC 60958 frame rate at		
Format	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		
1	IR Blaster x			
	IR Receiver	x 1 - 3.5mm		
Control Port	RS232 x 1			
	USB 1.1	USB 1.1 Type A – Keyboard		
	Туре В х 1	USB 1.1 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	48VDC / 0.5 Amp (US Power Plug)			
Power	10W/ Mass			
Consumption	18W - Max.			
Chassis	Metal			
Material	Model			
Chassis	Black			
Color Operating				
Temperature	0°C - 40°C / 32°F - 104°F			
Storage	-20°C - 60°C / -4°F - 140°F			
Temperature				
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	270 g		

Cable Specifications

Cable Length	1080p/60Hz	4K/30Hz	4K/60Hz
Cuote Bengai	8 bit	8 bit 4:4:4	8 bit 4:4:4
Display Port 1.2 Cable	10m	5m	2m
Cat.6/6e/7	140m	120m	100m

Supported Resolutions (Hz)

1024x768@60 1152*864@60 1280x720p@50 60 1280x800p@60 75 1280x1024@60 75 1360x768@60 1366x768p@60 1440x900p@60 1600x1200p@60 1680x1050p@60 1920x1080p@50 60 1920x1080p@50 60 1920x1200p@60 2560x1440p@60 2560x1440p@60 2560x1600p@60 3840x2160p@24 30 Hz (4:4:4)	
1152*864@60 1280x720p@50 60 1280x800p@60 75 1280x1024@60 75 1360x768@60 1366x768p@60 1400*1050@60 1440x900p@60 1600x1200p@60 1920x1080i@50 60 1920x1080p@24 30 1920x1200p@60 2048x1080p@60 2560x1080p@60 2560x1440p@60 2560x1600p@60 3840x2160p@50 60 Hz (4:2:0)	800x600p@60 75
1280x720p@50 60 1280x800p@60 75 1280x1024@60 75 1360x768@60 1366x768p@60 1400*1050@60 1440x900p@60 1680x1050p@60 1920x1080p@50 60 1920x1080p@50 60 1920x1200p@60 2048x1080p@60 2560x1440p@60 2560x1600p@60 3840x2160p@50 60 Hz (4:2:0)	1024x768@60
1280x800p@60 75 1280x1024@60 75 1360x768@60 1366x768p@60 1400*1050@60 1440x900p@60 1600x1200p@60 1680x1050p@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)	1152*864@60
1280x1024@60 75 1360x768@60 1366x768p@60 1440x900p@60 1600x1200p@60 1680x1050p@60 1920x1080i@50 60 1920x1080p@24 30 1920x1200p@60 2048x1080p@60 2560x1440p@60 2560x1600p@60 3840x2160p@50 60 Hz (4:2:0) 3840x2160p@24 30 Hz (4:4:4)	1280x720p@50 60
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1366x768p@60 1440x900p@60 1600x1200p@60 1680x1050p@60 1920x1080i@50 60 1920x1080p@24 30 1920x1080p@50 60 1920x1200p@60 2048x1080p@60 2560x1440p@60 2560x1440p@60 2560x1600p@60 3840x2160p@50 60 Hz (4:2:0)	1280x1024@60 75
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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)	1600x1200p@60
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2048x1080p@60 2560x1080p@60 2560x1440p@60 2560x1600p@60 3840x2160p@50 60 Hz (4:2:0) 3840x2160p@24 30 Hz (4:4:4)	1920x1080p@50 60
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3840x2160p@24 30 Hz (4:4:4)	2560x1600p@60
. , ,	3840x2160p@50 60 Hz (4:2:0)
3840x2160p@50 60 Hz (4:4:4)	3840x2160p@24 30 Hz (4:4:4)
	3840x2160p@50 60 Hz (4:4:4)

WARRANTY

This warranty shall not apply if any of the following:

- A. The product has been damaged by negligence, accident, lightning, water, or mishandling.
- B. The product has not been operated in accordance with procedures specified in operating instructions.
- C. The product has been repaired and or altered by other than the manufacturer or authorized service center.
- D. The product's original serial number has been modified or removed.
- E. External equipment other than supplied by the manufacturer, in the determination of a manufacturer, shall have affected the performance, safety or reliability of the product.
- F. Part(s) are no longer available for the product.

If the product needs repair or replacement during the specified warranty period, the product should be shipped back to Manufacturer at Purchaser's expense. Repaired or replaced product shall be returned to Purchaser by standard shipping methods at Manufacturer's discretion. Express shipping will be at the expense of the Purchaser.

No other warranty, express or implied other than Manufacturers shall apply.

The manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience or interruption in operation experienced by the customer due to a malfunction of the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period. This warranty does not cover damage to the equipment during shipping and Manufacturer assumes no responsibility for such damage. This product warranty extends to the original purchaser only and will be null and avoid upon any assignment or transfer.