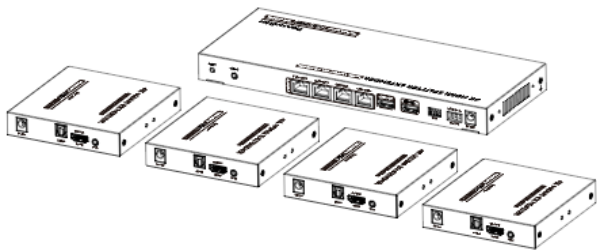# DIGITUS®

4K HDMI Extender Splitter Set, 1x4

Manual

DS-55515

Important safety notice

- Do not expose this device to rain, moisture and liquid
- Do not put any stuff into the device
- Do not disassemble or repair this device without qualified service technician
- Make sure the specification matched if using 3rd party DC adapters

1. Introduction

The DIGITUS® HDMI Extender Splitter Set extends an AV signal from the source device over a distance of up to 70 m and distributes it onto 4 screens in UHD resolution (4K/60Hz). Supports CAT 6/7/8 cables. Thanks to PoC, only the transmitter unit needs to be supplied with power by an external power adapter. EDID management, ARC, R232 signal transmission, HDMI loop-out and IR signal transfer are also included as features.

2. Features

1. Supports 4K2K/60Hz (HDR, 4:4:4)
2. R232 signal transmission
3. Video bandwidth: 18 GBPS
4. Maximum transmission distance(UHD 4K2K): 70 m
5. POC (Power over Cable) - Only the transmitter unit requires an external power adapter.
6. HDMI loop-out to the transmitter unit
7. HDCP 2.2 / 1.4
8. Supports CAT 6/7/8 cables
9. Audio return channel (ARC)
10. EDID management

3. Package Content

- 1x Transmitter unit
- 4x Receiver unit
- 1x IR transmission cable (1.5 m)
- 4x IR receiver cable (1.5 m)
- 1x Power adapter (DC 12V/3A, 1.45 m)
- 1x RS232 terminal block
- 1x Wall mounting fastening material
- 1x User manual

4. Specification

Transmission protocol	Ipcolor
Distribution mode	1 IN 4 OUT
Transmission distance	CAT6/6A/7≤70m
HDMI signal	HDMI 2.0, HDCP 2.2
HDMI Resolution	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz,1080p@50/60Hz, 1280x960, 1280x800, 1280x768, 1680x1050, 1360x768, 1366x768, 1600x900,1024x768, 800x600, 3840x2160@24/25/30/50/60Hz, 4096x2160@24/25Hz
Audio formats	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1
IR	Support IR pass back function (20KHz~60KHz)
RS-232	3 pin: TXD-RXD-GND, follows RS-232 levels
Working temperature	-20~60°C

Storage temperature	-30~70°C
Humidity (no condensation)	0~90% RH
Protection	ESD protection 1a Contact discharge level 3 1b Air discharge level 3 Implementation of the standard: IEC61000-4-2
	Lightning protection
	Surge protection
Power supply	TX: DC12V/3A
Power consumption	TX<13W RX<4W
Material	Iron
Color	Black
Weight	TX: 640g RX: 243g
Dimension	TX: 264.5(L) x 104.0(W) x 23.0(H)mm RX: 105.5(L) x 102.5(W) x 20.0(H)mm

5. Installation Requirements

1. HDMI source device (PC, DVD, play station, etc.)

2. HDMI display device (TV, monitor, projector, etc.)

3. UTP / STP CAT6 / CAT6A / CAT7 cable. Follow standard LEEE-568B

   It is recommended to choose high-quality network cables

6. Panel Description

Transmitter (TX)

1	Power indicator	The indicator will turn blue when the power is turned on
2	Reset button	Restart the device
3	IR out	Connect with IR blaster extension cable
4	RJ45 output port	Connect with Cat6/6A/7 network cables
5	HDMI output port	Connect with local HDMI display device with HDMI cable
6	HDMI input port	Connect with HDMI source device with HDMI cable
7	EDID DIP switch	Set output resolution through EDID DIP switch

8	RS-232 Port	Connect with the external device to control the transmitter.
9	Power	Connect with DC 12V/3A power adapter

Receiver (RX)
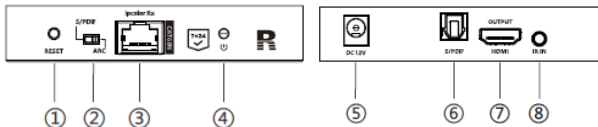
1	Reset button	Restart the device
2	Audio switch	Choose the audio source (output from the S/PDIF port) S/PDIF: from the source device ARC: from the TV (receiver end)
3	RJ45 signal input	Connect with Cat6/6A/7 network cables
4	Power/Signal indicator	When there is power and no HDMI signal, the indicator will flash, when there is HDMI signal, the indicator will light solid blue
5	Power	Connect with DC12V/2A power adapter
6	S/PDIF output	Connect with speaker or amplifier

7	HDMI output	Connect with HDMI display device
8	IR in	Connect with IR receiver extension cable

7. Installation Procedures

7.1 Network cable

Follow the standard of IEEE-568B:

1-Orange/white	2-Orange	3-Green/white
4-Blue	5-Blue/white	6-Green
7-Brown/white	8-Brown	

7.2 Connection
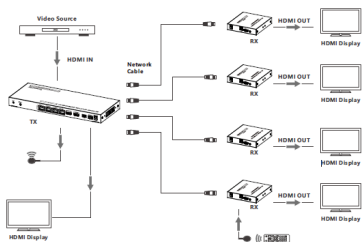
7.3 Connection instructions

- Connect the source device to the HDMI IN port of the transmitter through an HDMI cable.
- Connect the CAT6 OUT ports of the transmitter to the CAT6 IN port of the receivers through the network cables.
- Connect the HDMI OUTPUT port of the receivers to the display devices through HDMI cables.
- If using HDMI loop out, connect the LOOP OUT port of the transmitter to the display through an HDMI cable.
- If using the RS-232 control, connect the RS-232 port of the transmitter to an external device.
- Plug the power into the devices to get started.

7.4 IR User Guide

- IR blaster extension cable should plug in the IR OUT port of the transmitter, IR receiver extension cable should plug in the IR IN port of the receivers.
- The emitter of the IR blaster extension cable should be as close as possible to the IR receiving window of the source device.
- Point the remote control at the receiving head of the IR receiver extension cable to operate.

8. Function setting

8.1 RS232 settings

The default configuration is as follows:

Baud rate: 9600

Data bits: 8

Stop bits: 1

Parity: 0

Control Commands	Function Descriptions
ES XX On【Enter】	Turn on the network signal output port(s), choose from"01"to"04" (the network ports from left to right are: 01, 02, 03, 04); "All" means all four ports
ES XX Off【Enter】	Turn off the network signal output port(s), choose from "01" to "02" (the network ports from left to right are: 01, 02.); "All" means all four ports
Reset【Enter】	Restart the device
Recover 【Enter】	Restore device factory settings
Baud XX 【Enter】	Set the baud rate value: 9600 (default), 19200, 38400, 57600, 115200
Examples of control commands are shown below:	

Control Command	ES 02 On 【Enter】	
Function Description	Turn on network signal output port 02	
Return Values	Received successfully	ES 02 On OK
	Receive failed	ES 02 On FAIL
Control Command	ES All Off 【Enter】	
Function Description	Turn off all the network signal output ports	
Return Values	Received successfully	ES All Off OK
	Receive failed	ES All Off FAIL
Control Command	Reset 【Enter】	
Function Description	Restart the device	
Return Values	Received successfully	Reset OK
	Receive failed	Reset FAIL
Control Command	Baud 19200 【Enter】	
Function Description	Set the baud rate value: 19200	
Return Values	Received successfully	Baud 19200 OK
	Receive failed	Baud 19200 FAIL

8.2 EDID settings

There are 16 built-in EDIDs in the product, which can be switched through the DIP switch. The upward DIP switch indicates "1", and the downward DIP switch indicates "0".

ON 1 2 3 4	Switch up for "1"		ON 1 2 3 4	Switch down for "0"
Switch Status				**EDID Information**
1	2	3	4	
0	0	0	0	4K@60Hz 2CH
1	0	0	0	4K@60Hz 5.1CH
0	1	0	0	4K@60Hz 7.1CH
0	0	1	0	4K@60Hz HDR 7.1CH
0	0	0	1	4K@30Hz 2CH
1	1	0	0	4K@30Hz 5.1CH
1	0	1	0	4K@30Hz 7.1CH
1	0	0	1	4K@30Hz HDR 7.1CH
0	1	1	0	1080p@60Hz 2CH
0	1	0	1	1080p@60Hz 5.1CH
0	0	1	1	1080p@60Hz 7.1CH
1	1	1	0	1080i@60Hz 2CH

1	1	0	1	1080i@60Hz 5.1CH
1	0	1	1	1080i@60Hz 7.1CH
0	1	1	1	1080p@60Hz HDR 7.1CH
1	1	1	1	Auto

Auto output at a resolution compatible with all displays.

9. FAQ

Q: Why there is no image output on the display device?

A: 1) Please check the power supply and all the cables
are well-connected.

2) Please check whether there is an HDMI signal input.

3) Please make sure that the corresponding network port
output is not turned off by the RS-232 command.

Q: Why is the output image unstable?

A: 1) Please check whether the length of the network cable is
within 70 meters.

2) Press the "reset" button on TX and RX panels to restart and
reconnect.

Q: Why does the TV have a snowy/fuzzy screen?

A: 1) Please change the HDMI cable or use a shorter HDMI cable.

2) The recommended length of the HDMI cable connected to

the transmitter is ≤3 meters, and the recommended length of

the HDMI cable connected to the receiver is ≤5 meters.

10. Disclaimer

The product name and brand name may be registered trademark of

related manufactures. ™and® may be omitted on the user manual.

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