Lenkeng LKV828P-I HDMI Splitter Extender User Manual

Contents

Lenkeng LKV828P-I HDMI Splitter Extender

Important safety notice

1. Do not expose this device to rain, moisture, and liquid.
2. Do not put any stuff into the device.
3. Do not disassemble or repair this device without a qualified service tee hn ician.
4. Make sure the specification matched if using 3rd party DC adapters.

Introduction

This product is a 1 input 8 outputs extender sp litt er kit, which integrates the functions of distribution and extension. It distributes 1 HDMI input signal to 8 identical signal outputs, extends these signals up to 70 meters, and supports 4K60Hz resolution. It also supports JR passback, RS-232 control, and other functions. It is suitable for studios, multimedia classrooms, rail transit, etc.

Features

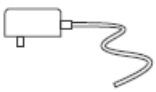
1. Zero latency transmission.
2. Split and extend one HDMI input signal to eight identical network output signals.
3. Support up to 4K@60Hz resolution.
4. Transmission distance up to 70 meters by using Cat6/6A/7 cables.
5. Support JR passback (20KHz~60KHz).
6. The transmitter supports an HDMI loop out.
7. The receiver can output the digital audio of the TV or source device from the S/PDI F port.
8. Support EDID passthrough or manually set the EDID of the product.
9. Support RS-232 command control.
10. Surge Protection, Lightning Protection, ESD Protection.
11. Equipped with rack mount ears.
12. Support PoC, only the transmitter is required to supply power.

Package Contents

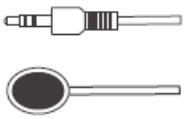
HDMI splitter extender TX x1pcs

HDMI splitter extender RX x8pcs

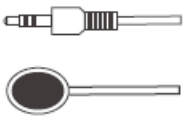
User manual x1pcs



DC12V/5A x1pcs



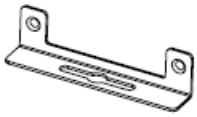
IR blaster extension cable x1pcs



IR Receiver extension cable x8pcs

Terminal block (RS-232) x1pcs

Mounting brackets x16pcs



Mounting brackets x2pcs

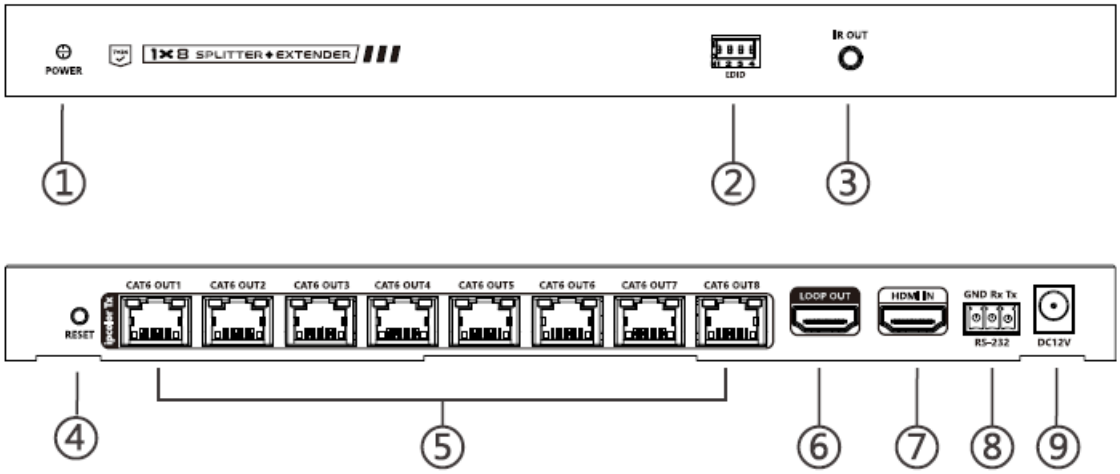
Screw x40pcs

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 IEEE-568B. It is recommended to choose high-quality network cables.

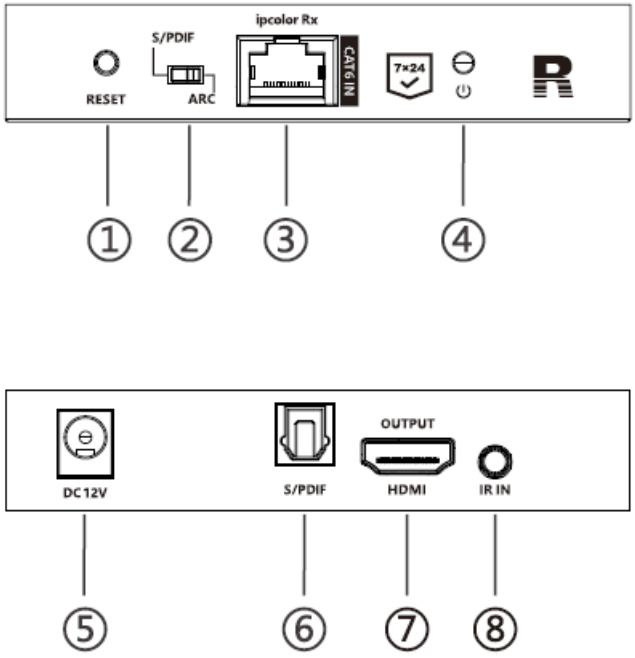
Panel Description

Transmitter (TX)



1. Power indicator The indicator will turn blue when the power is turned on
2. EDID DIP switch Set output resolution through EDI D DIP switch
3. I Rout Connect with IR blaster extension cable
4. Reset button Restart the device
5. RJ45 output port Connect with Cat6/6A/7 network cables
6. HDMI output port Connect with local H DM I display device with HDMI cable
7. HDMI input port Connect with H DM I source dev ice with HDMI cable
8. RS-232 Port Connect with the externa l device to control the transmitter.
9. Power Connect with DC 12V/5A power adapter

Rece iver (RX)



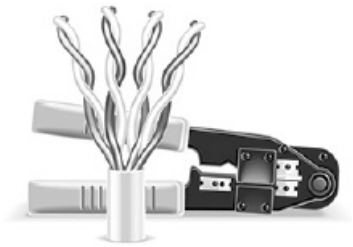
1. Reset buttonRestart the device
2. Audio switch Choose the audio source (output from the S/ PDIF port) S/ PDIF: from the source device ARC: from the TV (receiver end)
3. RJ45 sig nal input Connect with Cat6/ 6A/ 7 network cables
4. Power/Signal indicator When there is power and no HDMI signal, the indicator wi ll fl ash, when there is an

HDMI signal, the indicator will light solid blue

5. Power PoC {Powered by TX)
6. S/PDI F output Connect with a speaker or amplifier
7. HDM! output Connect with HDMI display device
8. IRin Connect with IR receiver extension cable

Installation Procedures

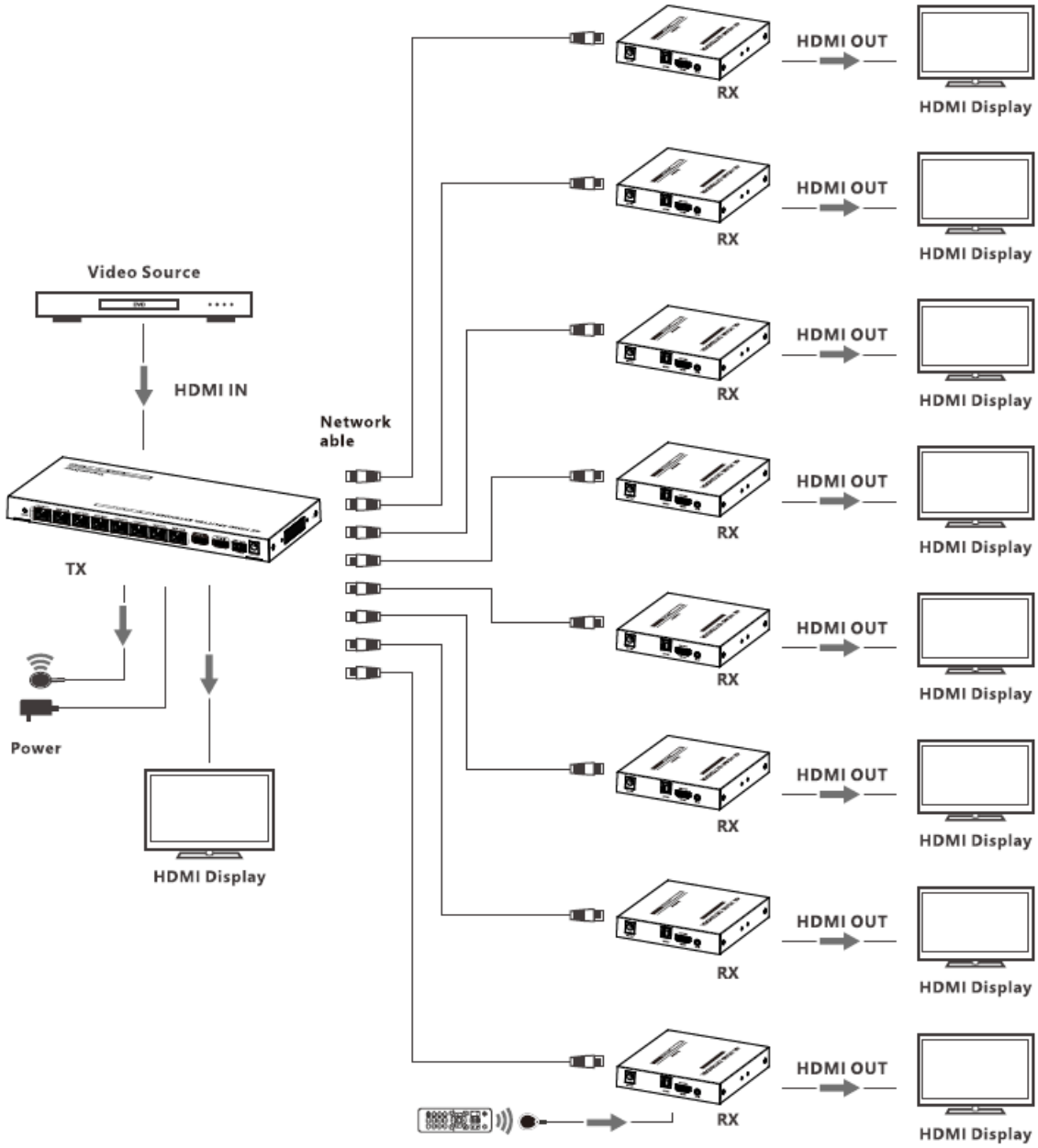
Network cable



Follow the standard of IEEE-5688:

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

Connection



Connection Instructions

1. Connect the source device to the HDM I IN port of the transmitter through an HDM I cable.
2. Connect the CAT60UT ports of the transmitter to the CAT6 IN port of the receivers through the network cables.
3. Connect the HDM I OUTPUT port of the receivers to the display devices through H DMI cables.
4. using an HDMI loop out, connect the LOOP OUT port of the transmitter to the display through an HDMI cable.
5. If using the RS-232 control, connect the RS-232 port of the transmitter to an external device.
6. Plug the power into the devices to get started.

IR User Guide

1. IRblasterextension cable should plug in the I ROUT port of the transmitter, IR receiver extension cable should plug in the IR IN port Q: Why is the output image unstable? of the receivers?
2. The emitter of the IR blaster extension cable should be as close as possible to the IR receiving window of the source device.
3. Point the remote control at the receiving head of the IR receiver extension cable to operate.

Function setting

1. RS232 settings

The default configuration is as follows:

- Baud rate: 9600
- Data bits:8
- Stop bits: 1
- Parity:0

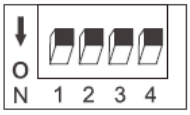
Control Commands	Function Descriptions
ES XX On [Enter]	Turn on the network signal output port(sJ, choose from·01• to “0 8” (the network ports from left to right are: 01, 02, 03, 04, 05,06, 07,08.); “All” means all four ports
ESXX Off [Enter)	Turn off the network signal output port(s), and choose from ·01• t o·oa· (the network ports from left to right are: 01, 02, 03, 04, 05, 06,07,08.J; “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, 57600,11 5200

Examples of control commands are shown below:		
Control Command	ES 04 On [Enter]	
Function Description	Turn on network signal output port 04	
Return Values	Received successfully	J ES040n0K
	Receive failed	E5040nFAIL
Control Command	ES All Off [Enter]	
Function Description	Turn off all the network signal output ports	
Return Values	Received successfully I ESAIIOffOK	
	Receive failed	I ES All Off FAIL
Control Command	Reset [Enter]	
Function Description	Restart the device	
Return Values	Received successfully	J ResetOK
	Receive failed	J Reset FAIL
Control Command	Baud 19200 [Enter]	
Function Description	Set the baud rate value: 19200	

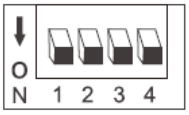
	Received successfully I Baud 19200 OK
Return Values	
	Receive failed J Baud 19200 FAIL

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 “O”.



Switch up for “1”



Switch down for “0”

Switch Status				EDID Information
1	2	3	4	
0	0	0	0	4K@60Hz2CH
1	0	0	0	4K@60Hz 5.1CH
0	1	0	0	**4K@60Hz7.1CH**
0	0	1	0	4K@60Hz HOR 7.1CH
0	0	0	1	4K@30Hz2CH
1	1	0	0	**4K@30Hz5.1CH**
1	0	1	0	**4K@30Hz7.1CH**
1	0	0	1	**4K@30HzHDR7.1CH**
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@60Hz2CH
1	1	0	1	**1080i@60Hz5.1CH**
1	0	1	1	**1080i@60Hz7.1CH**

0				1080p@60Hz HDR 7.1CH
				Auto

Auto out put at a resolution compatible wit h all displays.

FAQ

- Q: Why there is no image o utput on the display device?
- A:Please check t he power su pply and all the cables are well -connected.
- Please check whet her t here is an HDMI signal input.
- Please make sure t hat the co rresponding network port o ut put is not tu rned off by the RS-232 command.
- Q: Why is the output image unstable?
- A: J Please check whether the length o f the netwo rk cable is within 70 meters.

- Press the ·reset· button on TX and RX panels to restart and reconnect.
- Q: Why does the TV have a snowy/ fuzzy screen?
- A: Please change the HDMI cable o r use a shorter HDMI cable.
- The recommended length of the HDMI cable co nnected to the transmitter is :S3 met ers, and the recommended length of the HDMI cable co nnected to t he receiver is ,;5 met ers.

Technical Parameters

Item	Specification
Transmission protocol	**ipcolor**
Distribution mode	1 IN 8 OUT
Transmission distance	CAT6/6A/7s70m
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, 1280×960, 1280×800, 1280×768, 1680×1050, 1360×768, 1366×768, 1600×900, 1024×768, 800×600, 3840×2160@24/25/30/50/60Hz, 4096×2160@24/25Hz
Audio formats	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1
IR	Support IRpassback 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 2 1b Air discharge level 3 Implementation of the standard: IEC61000-4-2
	Lightning protection
	Surge protection
Power supply	TX:DC12V/5A
Power consumption	TX+RX<SOW
Material	Iron
Color	Black
Weight	TX:731g RX:243g
Dimension	TX:264.0(L)x120.0(W) x 23.0(H) mm RX:105.5(L)x102.5(W) x20.0(H) mm

Disclaimer

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Documents / Resources

	**Lenkeng LKV828P-I HDMI Splitter Extender** [pdf] User Manual LKV828P-I HDMI Splitter Extender, LKV828P-I, HDMI Splitter Extender, Splitter Extender, Extender