rocstor®

TrueReach
HDMI™ SPLITTER
& EXTENDER
1 to 2 4K/1080p HDMI

Important safety notice

1- Avoid placing this device near radiators, heat registers, or in direct sunlight.
2- Ensure the device is positioned in a well-ventilated area, without obstructing any ventilation openings.
3- Protect the apparatus from exposure to rain or water to prevent potential failures, fires, or electric shocks caused by liquid ingress.
4- Place the device on a stable, level surface to prevent accidental falls and malfunctions.
5- Never insert metallic objects into any open parts of the device to avoid the risk of electric shock.
6- When using a third-party power supply, verify that it meets the specified requirements to ensure proper functionality and safety.
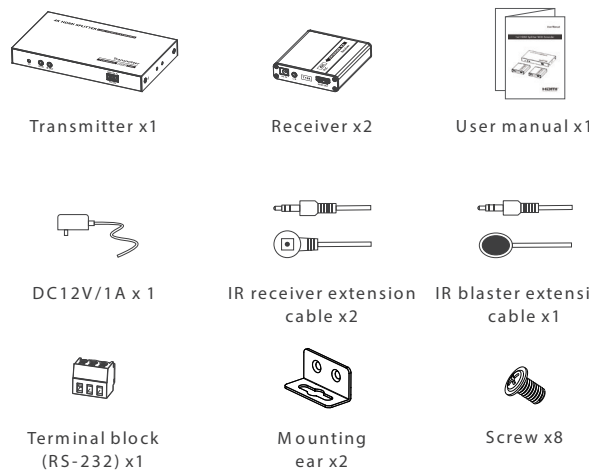
Introduction

This Trureach HDMI Splitter & Extender is a 1 input 2 outputs splitter extender kit designed for various applications such as outdoor advertising, studios, and multimedia classrooms. It efficiently distributes a single HDMI input signal to 2 identical outputs while extending these signals up to 70 meters. Supporting a resolution of 4K30Hz, it also features bi-directional IR passth-rough, RS-232 control, and 3.5mm L/R audio output functions."

Features

- Enjoy zero-latency transmission for seamless performance.
- Experience support for resolutions up to 4K@30Hz, with backward compatibility.
- Benefit from HDR10 support for enhanced visual quality.
- Easily distribute one HDMI source to two HDMI displays.
- Utilize CAT6/6A/7 network cables for signal transmission, with support for distances up to 70 meters for 1080p signals and up to 40 meters for 4K30Hz signals.
- Enable power over network cable, requiring only the transmitter to be powered.
- Take advantage of HDMI loop out functionality on the transmitter.
- Enjoy bi-directional IR passthrough capabilities (20~60KHz).
- Utilize RS-232 command control for enhanced device management.
- Stay protected with surge, lightning, and ESD protection features for added durability and safety.


Package Contents

• Package Contents

Transmitter x1   Receiver x2   User manual x1

DC12V/1A x 1   IR receiver extension cable x2   IR blaster extension cable x1

Terminal block (RS-232) x1   Mounting ear x2   Screw x8

Installation Requirements

Item	Description	Requirement
Signal source	Devices with HDMI port (PC, DVD, NVR, etc.)	HDMI cable ≤ 5m
Cable	CAT6/6A/7, following standard IEEE-568B	CAT6/6A/7 ≤ 70m
Display device	TV, projector, etc. with HDMI port	HDMI cable ≤ 5m

---

Panel Description - Transmitter (TX)
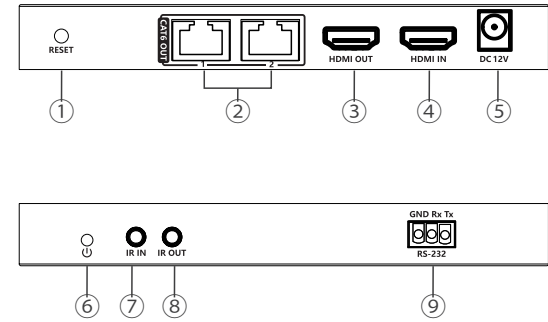
| ①	Reset button	Press to restart the device
②	RJ45 signal output	Connect with CAT6/6A/7 network cable
③	HDMI signal output	Connect with HDMI display device
④	HDMI signal input	Connect with HDMI source
⑤	Power input	Connect with DC12V/1A power adapter
⑥	Power indicator	a. When power is on and no HDMI signal is transmitted, the indicator is always on b. When power is on and HDMI signal is transmitted, the indicator is always on
⑦	IR in	Connect with IR receiver extension cable
⑧	IR out	Connect with IR blaster extension cable
⑨	RS-232	Connected to a control device (like computer), input control commands for management

---

Panel Description - Receiver (RX)
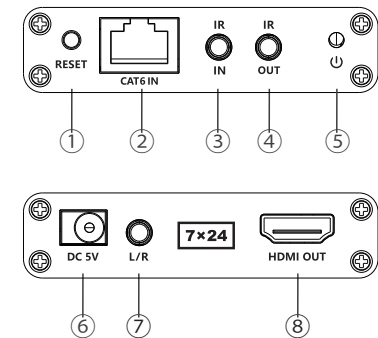
①	Reset button	Press to restart the device
②	RJ45 signal input	Connect with CAT6/6A/7 network cable
③	IR in	Connect with IR receiver extension cable
④	IR out	Connect with IR blaster extension cable
⑤	Power indicator	a. When power is on and no HDMI signal is transmitted, the indicator flashes b. When power is on and HDMI signal is transmitted, the indicator is always on
⑥	Power input	Connect with DC5V/1A power adapter (No need to connect to power when the transmitter is powered)
⑦	3.5mm L/R out	Connect headphones or power amplifiers to output stereo audio
⑧	HDMI signal output	Connect with HDMI display device

## Installation Procedures

1. Connection Diagrams
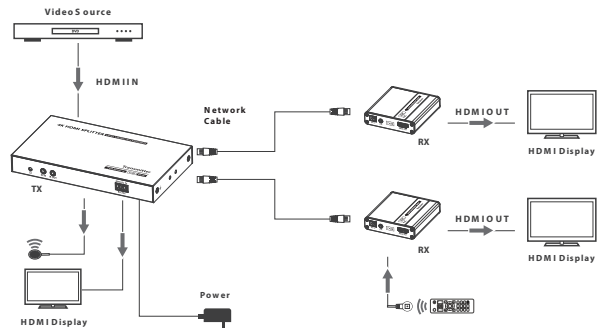
2. Connection Instructions

1- Connect the source device to the HDMI IN port of the transmitter using an HDMI cable. Then, connect the HDMI OUT port of the receiver to the display device with another HDMI cable.
2- Use a Cat6/6A/7 cable to establish a connection between the RJ45 ports of the transmitter and receiver.
3- If utilizing HDMI loop out, connect the display device to the HDMI OUT port of the transmitter.
4- For IR passthrough, plug the IR blaster extension cable into the IR OUT port, and the IR receiver extension cable into the IR IN port.
5- If additional audio output is required, connect the speaker to the L/R port of the receiver using a 3.5mm stereo audio cable.
6- To use RS-232 command control, connect the RS-232 port to the control device.
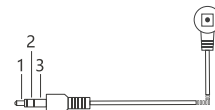7- Power up the devices by plugging in the power supply to initiate operation.

Installation Procedures

3. IR User Guide
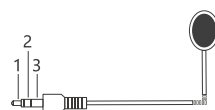
IR blaster
1. Power
2. IR Signal
3. Null

IR receiver
1. Power
2. IR Signal
3. Grounding

1- Plug the IR blaster extension cable into the IR OUT port of either the transmitter or receiver, and the IR receiver extension cable into the IR IN port of the same device.
2- Position the emitter of the IR blaster extension cable as close as possible to the IR receiving window of the source device.
3- Aim the remote control at the receiving head of the IR receiver extension cable to operate the device.

RS-232 SETTING

Baud rate: 9600
Data bits: 8
Stop bits: 1
Parity: none

Control Commands	Function Descriptions
ES XX On 【Enter】	1) Turn on the network signal output port(s), choose from " 01" to " 02" (the network ports from left to right are: 01, 02) 2)" All" means all four ports
ES XX Off 【Enter】	1) Turn off the network signal output port(s), choose from " 01" to " 02" (the network ports from left to right are: 01, 02) 2)" 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 Command1	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 Command2	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 Command3	Reset 【Enter】
Function Description	Restart the device
Return Values	Received successfully — Reset OK
	Receive failed — Reset FAIL
Control Command4	Baud 19200 【Enter】
Function Description	Set the baud rate value：19200
Return Values	Received successfully — Baud 19200 OK
	Receive failed — Baud 19200 FAIL

Note that you need to press the 'Enter' key to send the control command.

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 the specified range.
2) Press the "reset" button on TX or RX to restart and reconnect.

Q: Why does the TV have a snowy/fuzzy screen?
A: 1) Change to a better quality or shorter HDMI cable, the recommended length of HDMI cable is less than or equal to 5 meters.
2) Try another network cable and make sure that the length is within the specified range.

Technical Parameters

Item		Specification
Mode		1 in 2 out
HDMI Perfomance	Compatibility	HDMI 1.4, HDCP1.4
	Resolution	800x600、1024x768、1280x720、1280x960、1366x768、1440x900、1680x1050、1920x1080、480i@ 60Hz、480p@ 60Hz、576i@ 50Hz、576p@ 50Hz、720p@ 50/60Hz、1080i@ 50/60Hz、1080p@ 24/25/30/50/60Hz、4K@ 24/25/30Hz
	Audio Formats	PCM、LPCM、DTS-HD、DTS-Audio
Transmission distance	CAT6/6A/7	1080p@ 60Hz≤70 meters 4K@ 30Hz≤40 meters
IR Passback		Bi-directional IR passback (20-60khz)

RS-232	3Pin：GND-RxD-TxD, follows RS-232 levels Default baud rate：9600	
Operating Environment	Working temperature	-20~60
	Storage temperature	-30~70
	Humidity	0~90% RH
Protection	ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2	
	Lightning protection	
	Surge protection	
Power	Supply	TX: DC12V/1A RX: DC5V/1A
	Consumption	TX＜10W RX＜2.5W
Physical Properties	Housing	Iron
	Color	Black
	Weight	TX: 280g RX: 160g x2
	Dimensions	TX: 151.5(L) x 86.5(W) x 19.0(H)mm RX: 75.0(L) x 80.0(W) x 18.0(H)mm

Technical Parameters