

• Contact Informations

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• FCC Statement

Tested to Comply

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
 - Increase the separation between the equipment and receiver;
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
 - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not authorized by the party responsible for compliance could void the user's authority to operate this product.

• Disclaimer

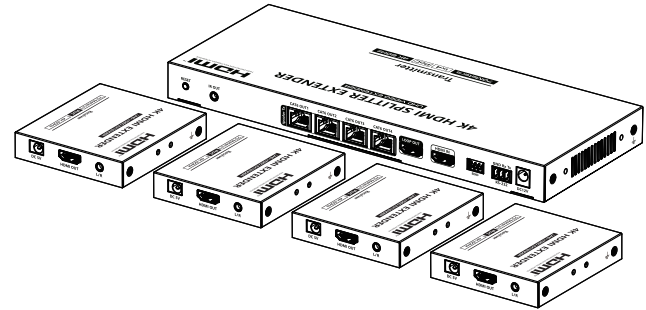
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rocstor®

TrueReach TR21

HDMI Splitter / Extender Power over Network Cable POC



User Manual
Y10G021-B1

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

• Important Safety Instructions

1. Do not expose this device to rain or place it near water. Any liquid entering the device may cause failure, fire, or electric shock.
2. Never insert metallic objects into any open parts of this device, as this may cause electric shock.
3. Do not place this device near or on a radiator, heat register, or in direct sunlight.
4. The device should only be repaired by a qualified technician.
5. If a third-party power supply is used, ensure its specifications meet the product requirements.

• Introduction

Rocstor TruReach TR21 is a 1-input, 4-output extender splitter kit that combines distribution and extension functions. It distributes one HDMI input signal to four identical outputs, extends these signals up to 70 meters, and supports 4K @ 60Hz resolution. The device also supports IR passback, RS-232 control, and other functions, making it suitable for studios, multimedia classrooms, rail transit systems, and more.

• Features

- Zero-latency transmission.
- Splits and extends one HDMI input signal to four identical network output signals.
- Supports resolutions up to 4K @ 60Hz.
- Transmission distance up to 70 meters using Cat6/6A/7 cables.
- Supports IR passback (20KHz ~ 60KHz).
- Transmitter supports HDMI loop-out.
- Receiver supports 3.5 mm stereo output.
- Supports EDID switch settings.
- Supports RS-232 command control.
- Built-in surge protection, lightning protection, and ESD protection.
- Equipped with rack-mount ears.
- Supports PoC – only the transmitter requires power.
- Designed for stable 24/7 operation.

• Package Contents



HDMI splitter extender
TX x1pcs



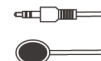
HDMI splitter extender
RX x4pcs



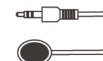
User manual x1pcs



DC12V/2A x1pcs



IR blaster extension
cable x1pcs



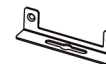
IR Receiver extension
cable x4pcs



Terminal block
(RS-232) x1pcs



Mounting brackets
x8pcs



Mounting brackets
x2pcs



Screw x24pcs



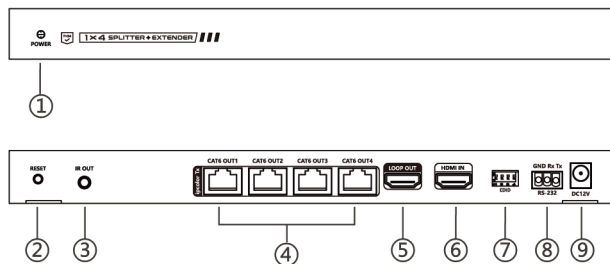
Grounding
Screw x6

• 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

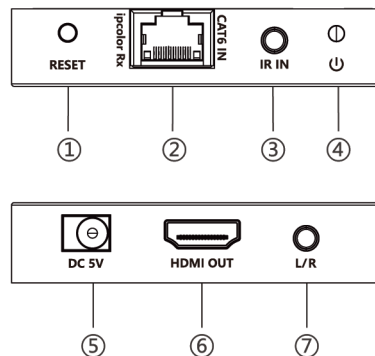
Transmitter (TX)



①	Power/Signal indicator	When there is power and no HDMI signal, the indicator will flash, when there is HDMI signal, the indicator will light solid
②	Reset button	Press to 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/2A power adapter

• Panel Description

Receiver (RX)



①	Reset button	Press to restart the device
②	RJ45 input	Connect with CAT6/6A/7 network cable
③	IR in	Connect with IR receiver extension cable
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
⑤	DC5V	Connect with DC 5V power adapter (PoC, only TX power supply is needed)
⑥	HDMI output	Connect with HDMI display device with HDMI cable
⑦	3.5mm stereo output	Connect with earphone or speaker

• Installation Procedures

1. Network cable

Follow the standard of IEEE-568B:

1-Orange/white

2-Orange

3-Green/white

4-Blue

5-Blue/white

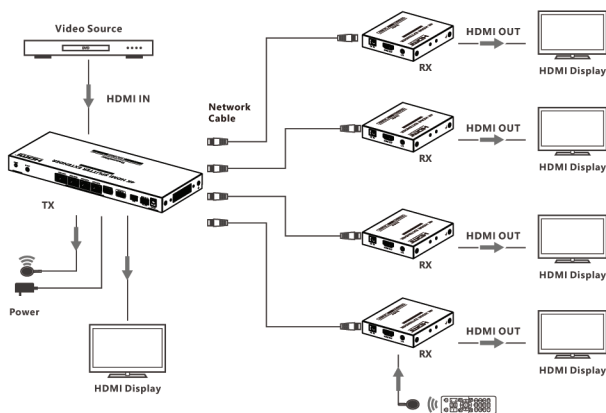
6-Green

7-Brown/white

8-Brown



2. Connection



• Installation Procedurest

3. Connection instructions

1. Connect the source device to the HDMI IN port of the transmitter using an HDMI cable.
2. Connect the CAT6 OUT ports of the transmitter to the CAT6 IN ports of the receivers using network cables.
3. Connect the HDMI OUT ports of the receivers to the display devices using HDMI cables.
4. If using HDMI loop-out, connect the LOOP OUT port of the transmitter to a display device using an HDMI cable.
5. If using RS-232 control, connect the RS-232 port of the transmitter to the external control device.
6. Plug in the power supply to the devices to begin operation.

4. IR User Guide

1. Plug the IR blaster extension cable into the IR OUT port of the transmitter, and plug the IR receiver extension cable into the IR IN port of the receivers.
2. Position the emitter of the IR blaster extension cable 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 the device.

• Function setting

1. RS-232 settings

The default configuration is as follows:

Baud rate: 9600

Data bits: 8

Stop bits: 1

Parity: 0

• Function setting

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 "04" (the network ports from left to right are: 01, 02, 03, 04.); "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 04 On [Enter]	
Function Description	Trun on network signal output port 04	
Return Values	Received successfully	ES 04 On OK
	Receive failed	ES 04 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	

• Function setting

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

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".



Switch up for "1"



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 5.1CH HDR
0	0	1	0	4K@30Hz 2CH
0	0	0	1	4K@30Hz 5.1CH
1	1	0	0	4K@30Hz 5.1CH HDR
1	0	1	0	1080p@60Hz 2CH
1	0	0	1	1080p@60Hz 5.1CH
0	1	1	0	1080p@60Hz 5.1CH HDR
0	1	0	1	1080p@60Hz 7.1CH
0	0	1	1	1080p@60Hz 7.1CH HDR
1	1	1	0	1080i@60Hz 2CH
1	1	0	1	1080i@60Hz 5.1CH
1	0	1	1	1080i@60Hz 7.1CH

• Function setting

0	1	1	1	1080i@60Hz 7.1CH HDR
1	1	1	1	Copy loop out

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.

• Technical Parameters

Item	Specification
Transmission protocol	ipcolor
Distribution mode	1 IN 4 OUT
Transmission distance	CAT6/6A/7 ≤ 70 m
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, 1280x1024, 1680x1050, 1600x1200, 1600x900, 1024x768, 800x600, 1920x1200, 3840x2160@24/25/30/50/60Hz, 4096x2160@24/25/30Hz
Audio formats	4K: LPCM/DTS/Dolby Digital 5.1 ; 1080P: LPCM/DTS/Dolby Digital 5.1/Dolby Digital plus7.1
IR	Support IR passback 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/2A
Power consumption	TX+RX < 11W
Material	Iron
Color	Black
Weight	TX:672g RX:145g
Dimension	TX:265.0(L)x104.0(W)x23.0(H)mm RX:85.0(L)x75.5(W)x16.5(H)mm