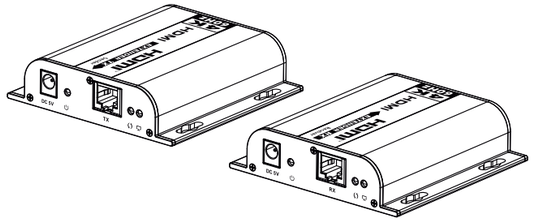
TrueReach TR18 4K@60Hz HDMI & IR Exender
One-to-One Connection



User Manual
Y10G018-B1

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Important Safety Notice

Safety Guidelines

- **Electrical Safety:** Ensure all devices are properly grounded to prevent electric shock.
- **Heat Exposure:** Keep the device away from heat sources and direct sunlight to avoid overheating.
- **Stability:** Place the device on a stable, level surface to prevent falls or damage.
- **Water Protection:** Keep the device away from water or moisture to prevent malfunctions or hazards.
- **Power Supply:** Use only a DC 5V power supply. Third-party adapters must meet the required specifications.

Usage Notes

- Do not interchange the HDMI EXTENDER sender/receiver or the IR blaster/receiver.
- Avoid plugging or unplugging cables while the device is in use.
- The device complies with the IEEE 802.3af POE standard. Maximum power consumption is 10W.

Introduction

The TrueReach TR18 includes a sender and receiver, enabling the extension of 4K@60Hz HDMI signals up to 393ft (120m) over Category 6 or higher network cables. It supports versatile configurations, including one-to-one connections, one-to-many setups via a gigabit switch, and cascading switches for extended coverage. With IR passback functionality for seamless remote control, this kit is ideal for a range of applications such as meetings, home entertainment, educational presentations, and professional AV setups, providing reliable, high-quality performance for long-distance signal transmission.

Features

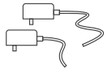
- High-definition, low-latency transmission.
- Supports resolutions up to 4096x2160@60Hz and is backward compatible with lower resolutions.
- Compatible with Cat5/5e/6 or higher network cables; transmission distance is up to 393ft (120m) with a Cat6 cable.
- Supports one-to-one and one-to-many connections via a gigabit switch.
- Supports IR passback (20~60kHz).
- Firmware upgradeable via Micro USB.
- Built-in lightning, surge, and ESD protection for enhanced safety.

Package Contents

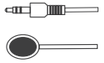
Sender x 1pc

Receiver x 1pc

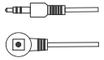
User Manual x 1pc



DC5V/1A x 2pcs
(POE version does
not have this option)



IR Blaster Extension Cable
x 1pc



IR Receiver Extension Cable
x 1pc

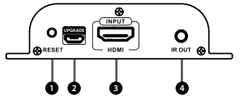
Note: The accessory content listed above applies to the standard package for a complete kit. If purchasing the HDMI Extender TX (Transmitter) or RX (Receiver) separately, the package contents may vary.

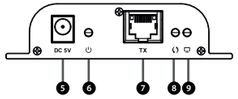
Installation Requirements

1. **HDMI Source Device:** Compatible with computer graphics cards, DVD players, PS3, HD monitoring equipment, etc.
2. **HDMI Display Device:** Supports SDTV, HDTV, projectors, or any display with an HDMI port.
3. **Network Cables:** Use UTP/STP Cat5e/6 cables compliant with the IEEE-568B standard.
   Transmission Length: CAT5: Up to 80m
   CAT5e: Up to 100m
   CAT6: Up to 120m

Panel Description

1. HDMI Extender TX (Sender)

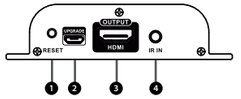


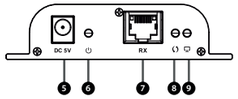


1	Reset
2	Firmware Upgrading
3	HDMI Signal Input
4	IR Signal Output (Connect to Blaster Extension Cable)
5	Power Input (DC 5V/1A)
6	Power Light

7	RJ45 Signal Output
8	Data Transmission Light
9	Network Link Light

2. HDMI Extender RX (Receiver)





1	Reset
2	Firmware Upgrading
3	HDMI Signal Output
4	IR Signal Input (Connect to IR Receiver Extension Cable)
5	Power Input (DV 5V/1A)
6	Power Light

7	RJ45 Signal Input
8	Data Transmission Light
9	Network Link Light

Installation Procedures

1. How to Make a Cat5e/6 Network Cable

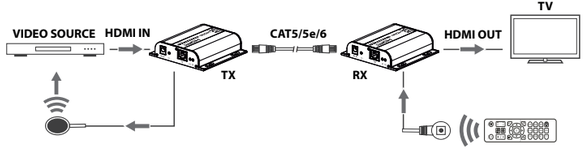
Follow the IEEE-568B wiring standard:

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

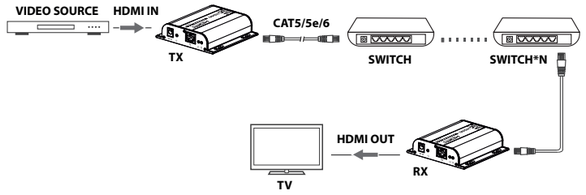
Installation Procedures

2. Connections

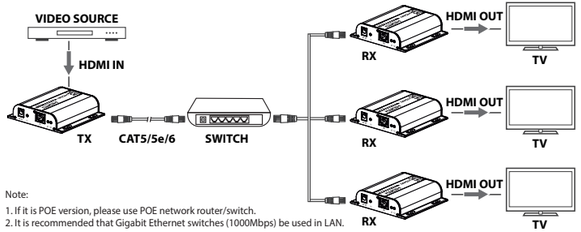
2.1 Point-to-Point Connection: Up to 120 meters transmission distance over single CAT6 cable.



2.2 LAN Switch Cascade Connection: By using the LAN switch/router to realize unimited extension.



2.3 One to Many Connections: By using network router/switch, one sender to several receivers, realize extender & splitter funcion.



Note:
1. If it is POE version, please use POE network router/switch.
2. It is recommended that Gigabit Ethernet switches (1000Mbps) be used in LAN.

IR User Guide

1. IR blaster extension cable should plug in the IR OUT port of the sender, IR receiver extension cable should plug in the IR IN port of the receiver
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.

FAQ

TV display: "Waiting for connection..."
- Check if the power supply of the TX (sender) and any switches (if used) is properly connected.
- Ensure the connecting cable is firmly secured.

TV display: "Please check the TX input signal
- Verify that there is an HDMI signal input to the TX. Connect the signal source directly to the display to check for signal output. If needed, switch the signal source or replace the HDMI cable, and try again.

Display not smooth or unstable?
- Check that the cable length between the TX and the switch, and from the switch to the RX, is within the supported range. Press the "reset" button on the TX/RX front panel, then reset and reconnect.

Specification

Item	Sender	Receiver
Video		
Input interface	1x HDMI	1x RJ45
Output interface	1x RJ45	1x HDMI
HDMI length	≤ 16ft (5m)	≤ 16ft (5m)
Maximum transfer rate	18Gbps	
Compatibility	HDMI 2.0	
	HDCP 1.4/HDCP 2.2	
Resolutions	4096x2160@24/30/50/60Hz, 3840x2160@24/30/50/60Hz, 1080P@24/25/30/50/60Hz, 720P@50/60Hz, 576P@60Hz, 480P@60Hz, 1920x1200, 1680x1050, 1600x900, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600	

Connection types	One-to-one connection One-to-many connection Switch cascading	
Transmission distance	CAT5 80m / CAT5E 100m / CAT6 120m	
Transmission latency	1080P: 80~130ms 4K@60Hz: 150~220ms	
Audio signal		
Input interface	1×HDMI	1×RJ45
Output interface	1×RJ45	1×HDMI
HDMI output	LPCM 2.0	
Command Signal		
IR interface	1x 3.5mm IR OUT	1x 3.5mm IR IN
IR receiving range	≤ 16ft (5m)	
IR frequency	20kHz~60kHz	
Power		
Power Supply	DC 5V/1A	DC 5V/1A
Power Consumption	TX ≤ 3.5W	RX ≤ 2.5W
Operating Environment		
Working temperature	- 20℃~60℃	
Storage temperature	- 30℃~70℃	
Humidity	0~90%RH (no condensation)	
Physical Properties		
Housing	Aluminium	
Weight	156g	154g
Color	Black	
Dimensions	96.8(L)*94(W)*23.7(H)mm	
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	

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