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TX1PRO

HDMI 2.0b (18Gbps) 4K HDR/DolbyVision®

HDBaseT Transmitter

User Manual

VER 2.1

Thank you for purchasing this Device

The Simplified MFG TX1PRO was designed to provide years of reliable service. At Simplified MFG we want your experience with this device to be the best possible and are committed to helping achieve that experience. Please read and keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended to protect and extend the life of your equipment. If connected to satellite or cable boxes, the HDSURGE is recommended to prevent surges through the HDMI cable.

Table of Contents

**Please use 568b protocol when terminating the category cable.

1. **Introduction**

This TX1PRO 18Gbps HDMI Extender can extend HDR/Dolby Vision™ audio/video, RS-232, bi-directional IR, and the distance is up to 131ft /40m and a 1080p signal up to 230ft (70m) between transmitter and receiver (HDBaseT certified display) via a single CAT cable. It supports resolution up to 4K2K@60Hz 4:4:4, 18Gbps and HDCP 2.2. The TX1PRO was designed specifically for use with HDBaseT enabled projectors.

2. **Features**

- HDBaseT certified for use with other HDBaseT devices
- HDMI 2.0, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
- Supports 18Gbps bandwidth
- 40m (131ft) distance at HDMI 2.0b 4K/UHD
- 70m (230ft) distance at 1080p
- HDR 8/10/10+ and Dolby Vision™ support
- Supports digital audio formats including Dolby+, Atmos, and DTS-X
- WCG (Wide Color Gamut) and HLG (Hybrid Log Gamma) support

3. **Package Contents**

Qty	Item
1	18Gbps HDMI over HDBaseT Extender (Transmitter)
1	IR Blaster cable (1.5 meters)
1	20~60KHz IR Receiver cable (1.5 meters)
2	Mounting Ears
1	3-pin Phoenix connectors
1	24V/1A Locking Power adapter
1	User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 / HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	4K2K 50/60Hz 4:4:4/4:2:2/4:2:0 4K2K 30Hz 4:4:4 1080p, 1080i, 720p, 720i, 480p, 480i All HDMI 3D TV formats All PC resolutions including 1920 x 1200
Color Space	RGB / YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8/10/12-bit (1080P60Hz, 4K30Hz, 4K60Hz YCbCr 4:2:2/4:2:0) 8-bit (4K60Hz 4:4:4)
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby+, Atmos, DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connections	

Transmitter	Inputs: 1x HDMI Type A [19-pin female]
	           1x Service [Mini-USB, Update port] Outputs: 1x HDBT Out [RJ45, 8-pin female
	Control: 1x IR IN [3.5mm Stereo Mini-jack]
	           1x IR Out [3.5mm Stereo Mini-jack]
	           1x RS-232 [Phoenix jack]

Mechanical	
Housing	Metal Enclosure
Color	Black

|	
Dimensions	Transmitter 140mm/5.5" [W] x 65mm/2.56" [D] x 18mm/0.71" [H]
Weight	235g/8.3oz.
Power Supply	Input: AC 100 - 240V 50/60Hz Output: DC 24V/1A (Locking connector)
Power Consumption	5W Max
Operating Temp	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

5. Operation Controls and Functions

5.1 Transmitter Panel
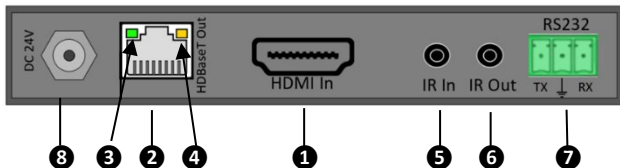
| No.	Name	Function/Description
1	HDMI In	HDMI input port form HDMI source. Examples are Cable/Sat, media players or Blu-Ray player
2	HDBaseT Out	RJ45 Output for using Cat6/6a/7 cable to connect to RX
3	Category Connection LED Indicator	- Illuminated: The RX and TX are connected well - Flashing: The connection is poor - Off: The connection is not made
4	Data Signal Connection LED Indicator	- Illuminated: HDMI Signal is passing and has HDCP - Flashing: HDMI Signal is passing and does not have HDCP - Off: HDMI circuit is not complete for some reason (check HDMI cables)

5	IR In	Will send IR signals to RX if RX portion is equipped to receive them. IR receiver is supplied
6	IR Out	IR TX (Flasher) connects here and outputs IR from RX IR input if equipped
7	RS-232	3-Pin Phoenix connector for RS-232 pass-through. TX, ground, & RX are indicated on the metal chassis
8	DC 24V	Power Supply connection

5.2 IR Pin Definition

IR Receiver and Blaster pin's definition is as below:
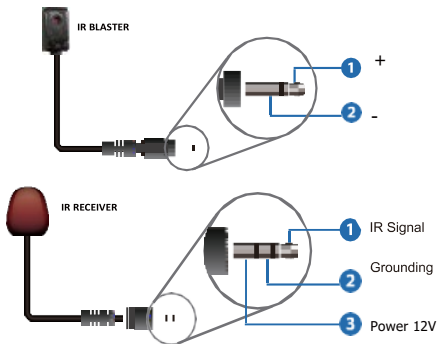
6. **Application Example**
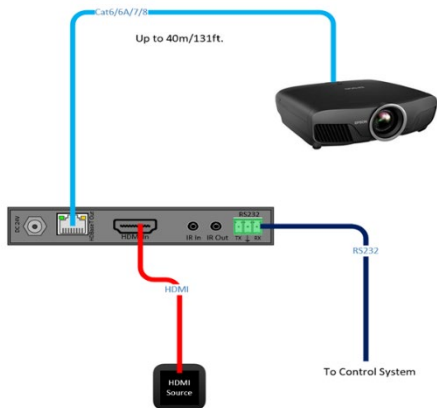
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7. **Warranty and Contact Information**

Should you feel that this product does not function adequately due to defects in materials or workmanship, we (referred to as "the warrantor") will, for the length of the period indicated below (starting from the original date of the purchase) either a) repair the product with new or refurbished parts. Or b) Replace the product with new or refurbished product. All Simplified MFG products are covered by a 3-year warranty. During this period there will be no charge for unit repair, replacement of unit components or replacement of the product if deemed necessary. The decision to repair or replace is made by the warrantor. The purchaser must mail in the product during the warranty period. This limited warranty only covers the product purchased as new and is extended to the original purchaser only. It is non-transferrable to subsequent owners, even during the warranty period. A purchase receipt or other proof of purchase date is required for the limited warranty service.

Sales and Tech Support
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