ALTIMIUM

TP412RA-4K

Ultra-thin HDBaseT Receiver

131ft/40m 4K UHD, support audio de-embedding

Version: TP412RA-4K_2017V1.0

Statement

Read this user manual carefully before using the product. Pictures shown in this manual is for reference only, different model and specifications are subject to real product. This manual is only for operation instruction only, not for any maintenance usage. The functions described in this version are updated till November 8, 2017. In the constant effort to improve our product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

Safety Precaution

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

● Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.

● Do not dismantle the housing or modify the module to avoid electrical shock or burn.

● Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.

● Do not expose the unit to rain, moisture or install this product near water.

● Install the device in a place with fine ventilation.

● Do not twist or pull by force ends of the optical cable. It can cause malfunction.

● Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

● Unplug the power cord when left unused for a long period of time.

● Refer all servicing to qualified service personnel.

After-sales Service

We provide limited warranty for the product within **three years** counting from the first day you buy this product (The purchase invoice shall prevail).
For more details, please contact your distributor.

Introduction

This product is an Ultra-thin HDBaseT Receiver designed with audio de-embedded outputs. It receives 4K/1080p HDMI signal via CAT5e/CAT6a cable from HDBaseT Transmitter or Matrix Switcher at 40m/70m.

It supports unidirectional PoH function, the receiver can be powered by HDBaseT Transmitter or Matrix Switcher.

Features

- Supports HDMI1.4 & HDCP2.2, and is backward compatible to the previous version.
- Maximum transmission distance is up to 40m (131ft) at 4Kx2K, and 70m (230ft) at 1080p.
- Supports bi-directional IR and RS232 pass-through for long-distance control.
- Supports bi-directional PoH for simplified wiring, and compatible with 48VDC PoC.
- Supports audio de-embedded outputs.

Package List

- 1 x TP412RA-4K Ultra-thin HDBaseT Receiver
- 2 x Mounting Ears & 2 x Screws
- 4 x Plastic Cushions
- 1 x 3-Pin Phoenix Connector (Male)
- 1 x User Manual

Panel Description

Front Panel
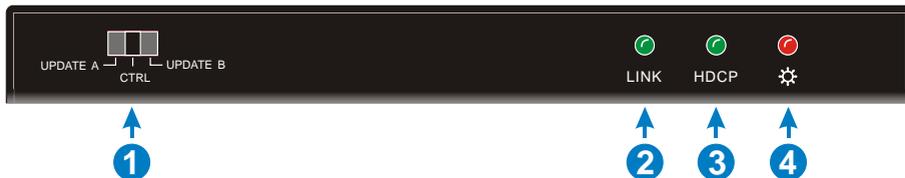
No.	Name	Description
①	RS232 MODE switcher	CTRL: RS232 pass-through control mode; UPDATE A: Update Valens IC program, connect a PC to the RS232 port, and then double-click the update file (.bat). UPDATE B: Update the IC program which is used for de-embedding audio, the upgrade method is the same as the above UPDATE A.
②	Link status LED	OFF: No Link; GREEN:Link successful.
③	HDCP compliant LED	OFF: No HDMI traffic (no picture); GREEN: Traffic with HDCP; Blinking: Traffic without HDCP.
④	Power LED	OFF: No power; RED: DC power present.

Rear Panel
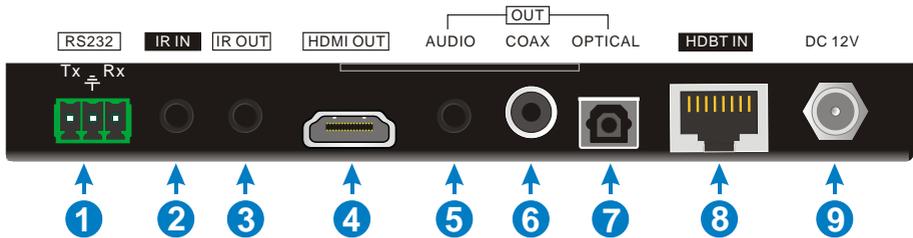
| No.	Name	Description
①	RS232 connector	If one is connected with control device (e.g. PC), and the other should be connected with the third-party that need to be controlled.
②	IR IN	Work with far-end IR OUT port, connect with IR Receiver (with carrier) to collect IR signal to control far-end display device from local.
③	IR OUT	Work with far-end IR IN port, connect with IR Emitter to send IR signal to control input source device.
④	HDMI OUT	HDMI type A connector, connect to display.
⑤	AUDIO OUT	3.5mm stereo audio jack, connect to analog stereo audio device.
⑥	COAX OUT	Coaxial audio connector, connect to digital audio device.
⑦	OPTICAL OUT	Optical audio connector, connect to optical audio devices.
⑧	HDBT IN	Connect to the HDBT OUT socket on HDBaseT Transmitter or Matrix Switcher via CAT5e/6a/7 cable, support bidirectional PoH technology.
⑨	DC 12V power port	Connect to 12VDC power adaptor, or it can be powered via the HDBaseT Transmitter or Matrix Switcher by bidirectional PoH technology.

Specification

Video	
Video Input	(1) HDBT IN
Video Input Connector	(1) RJ45
Video Output	(1) HDMI OUT
Video Output Connector	(1) HDMI type A
Audio	
Audio Output	(1) AUDIO OUT; (1) COAX OUT; (1) OPTICAL OUT
Audio Output Connector	(1) 3.5mm stereo audio jack; (1) Coaxial audio connector; (1) Optical audio connector
Digital Audio Output Format	PCM/Dolby/DTS
Analog Audio Output Format	PCM
Frequency Response	20 Hz to 20 kHz, ±3 dB
Control	
Control Ports	(1) IR IN; (1) IR OUT; (1) RS232
Control Connector	(2) 3.5mm mini jack (IR); (1) 3-pin phoenix connector (RS232)
General	
Transmission Mode & Distance	HDBaseT (bi-directional PoH); 1080P ≤ 70m; 4K×2K ≤ 40m
Resolution	Up to 4K×2K@60Hz 4:2:0
Bandwidth	10.2Gbps
HDMI Standard	HDMI1.4 & HDCP2.2
Power Consumption	15W (max)
Temperature	-10℃~ 50℃
Humidity	0% ~ 90%
Power Supply	Input: 100VAC~240VAC, 50/60Hz; Output: 12VDC 2A
Dimension (W*H*D)	152mmx16.2mmx100mm
Net Weight (g)	236g

System Diagram

IR:
HDMI:
Audio:
RS232:
HDBaseT:

4K 40m, 1080P 70m

Transmitter

HDBaseT Receiver

Tx Rx

Tx Rx

IR Receiver

TV Remote

Laptop

IR Emitter

HDTV

Soundbar

Speaker
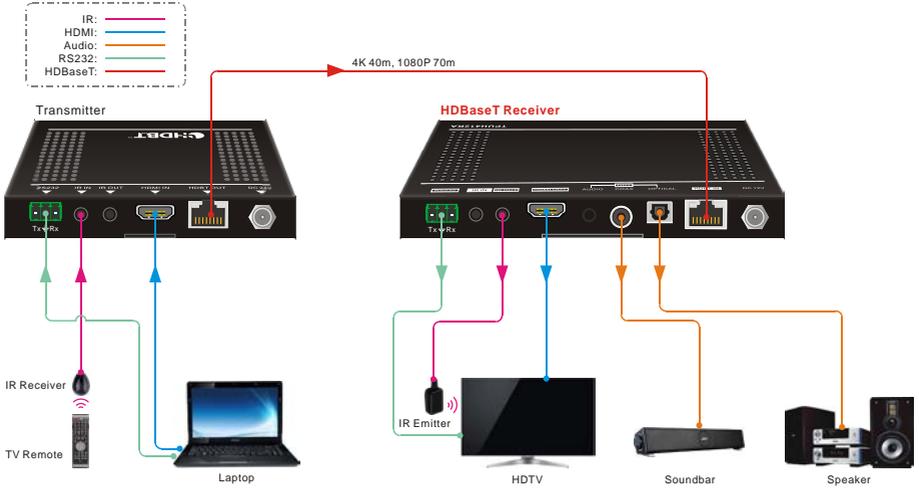
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