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ALFATRON ELECTRONICS GmbH GERMANY

TPUK70-RS-Rx
TPUK70-RS-Tx

True 4K HDMI Transmitter & Receiver IR & RS232

TPUK70-RS

True 4K HDMI Transmitter & Receiver IR & RS232

Ultra-thin HDMI2.0 Extender

40m 4K UHD



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Version: TPUK70RS_2019V1.0

Statement

Read this user manual carefully before using this product. Pictures shown in this manual is for reference only, different model and specifications are subject to real product. This manual is only for operational instruction only, not for any maintenance usage.

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 liquid.
- Install the device in a place with ventilation. Indoor use only.
- Do not twist or pull the ends of the cable. It may 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 not used for an extended period of time.
- Refer all servicing to qualified service personnel.

Package List

- | | |
|----------------------------------|-------------------------------|
| ▪ 1 x Transmitter | ▪ 1 x Receiver |
| ▪ 4 x Mounting Ears & 4 x Screws | ▪ 8 x Plastic Cushions |
| ▪ 1 x RS232 Cable | ▪ 1 x 3-pin Phoenix Connector |
| ▪ 1 x Power Adaptor (12VDC, 2A) | ▪ 1 x User Manual |

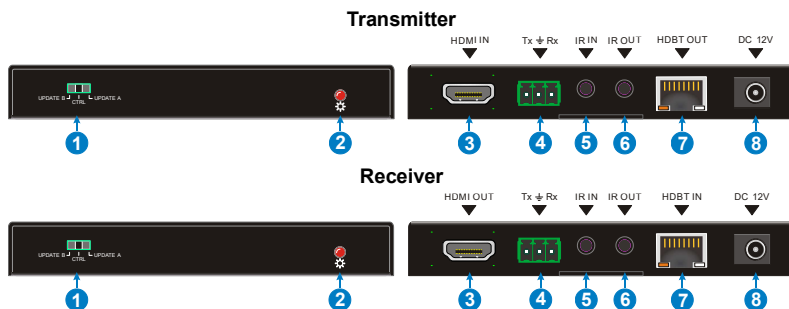
Introduction

The TPUK70-RS is an ultra-thin HDMI2.0 Extender consisting of a transmitter and a receiver. It extends 1080p/4K HDMI signal over CAT5e/CAT6a cable up to 70m /40m (PoC) and enables IR and RS232 pass-through to control source or display device remotely. It also adopts the visual lossless video compression technology (VLC) to ensure the HD lossless transmission of HDR and 4K@60Hz/4:4:4 over CAT5e/CAT6a cable.

Features

- Supports 4K/UHD/60Hz/4:4:4.
- Supports HDMI2.0 & HDCP2.2 and is backward compatible to the previous versions.
- Maximum transmission distance is up to 40m for 4Kx2K, and 70m for 1080p.
- Supports CEC, IR and RS232 pass-through for long-distance control.
- Supports bi-directional PoC for simplified wiring.
- Supports HDR.
- Features DIP switch for choosing mode from: Control, Update A, Update B.

Panel Description

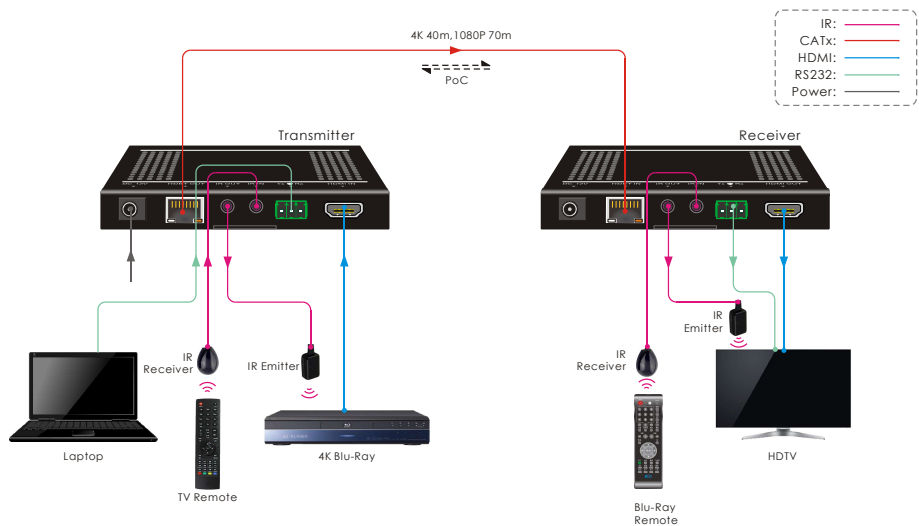


No.	Name	Description
①	MODE Switcher	<ul style="list-style-type: none"> ▪ CTRL: RS232 pass-through control mode. ▪ UPDATE A: Update Valens IC program, connect a PC to the RS232 port, and then double-click the update file (.bat). ▪ UPDATE B: Update compression IC program, the upgrade method is the same as the above UPDATE A.
②	Power LED	RED: DC power present.
③	HDMI IN (Transmitter)	Connected to HDMI source.
	HDMI OUT(Receiver)	Connected to HDMI display.
④	3-pin Terminal Block	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.
⑤	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.
⑥	IR OUT	Work with far-end IR IN port, connect with IR Emitter to send IR signal to control input source device from remote.
⑦	HDBT OUT(Transmitter)	Connect to the HDBT IN socket on Receiver via CAT5e/6a cable.
	HDBT IN (Receiver)	Connect to the HDBT OUT socket on Transmitter CAT5e/6a cable.
⑧	DC 12V Power Port	Support bi-directional PoC, either ports should be connected with 12V DC 2A power adaptor.

Specification

Model	Transmitter	Receiver
Spec		
Input	HDMI IN	HDBT IN
Output	HDBT OUT	HDMI OUT
Control Ports	IR IN, IR OUT, RS232	IR IN, IR OUT, RS232
General		
Transmission Mode & Distance	HDBaseT; 1080p ≤ 70m; 4K×2K ≤ 40m	
Resolution	Up to 4K×2K@60Hz 4:4:4	
Bandwidth	18Gbps	
HDMI Standard	HDMI2.0 & HDCP2.2	
Power Consumption	14W (max)	
Operation Temperature	0 ~ +40°C	
Storage Temperature	-10 ~ +50°C	
Relative Humidity	0% ~ 90%	
External Power Supply	Input: 100VAC~240VAC, 50/60Hz; Output: 12VDC 2A	
Dimension (W*H*D)	115mm x 16 mm x 84mm	
Net Weight (g)	Transmitter: 150g; Receiver: 153g	

System Diagram



1. After-sales Service

Should you experience problems using the ALF-SUK2, please refer to the manual and troubleshooting and maintenance section (8). Should the error persist, note that any transport costs of the equipment to the distributor are borne by the user during the warranty.

1) Product Limited Warranty: ALFAtron warrants that its products will be free from defects in materials and workmanship for **seven years**, which starts from the first day of purchase.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the warranty period must be presented to obtain warranty service.

2) What the warranty does not cover (servicing available for a fee):

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
 - Normal wear and tear
 - Use of supplies or parts not meeting product specifications
 - No certificate or invoice as the proof of warranty.
 - The product model showed on the warranty card does not match with the product or if the product had been altered.
 - Damage caused by force majeure.
 - Servicing not authorized by ALFAtron
 - Any other causes which does not relate to a product defect
- Delivery, installation or labour charges for installation or setup of the product

3) Technical Support: Contact our after-sales department via email or telephonically and please provide the following information about your case:

- Product version and name.
- Detailed failure situations.
- The formation of the cases.

1. Limited warranty in respect of ALFAtron Products Only

1.1 This limited warranty covers defects in materials and workmanship in this product.

1.2 Should warranty service be required, proof of purchase must be presented to the Company. The serial number on the product must be clearly visible and not have been tampered with in any way whatsoever.

1.3 This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by the Company to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover equipment enclosures, cables or accessories used in conjunction with this product.

This limited warranty does not cover the cost of normal maintenance. Failure of the product due to insufficient or improper maintenance is not covered.

1.4 The Company does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

1.5 Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

1.6 Unless otherwise specified, the goods are warranted in accordance with the manufacturer's product specific warranties against any defect attributable to faulty workmanship or materials, fair wear and tear being excluded.

1.7 This limited warranty only covers the cost of faulty goods and does not include the cost of labour and travel to return the goods to the Company's premises.

1.8 In the event of any improper maintenance, repair or service being carried out by any third persons during the warranty period without the Company's written authorization, the limited warranty shall be void.

1.9 A 7 (seven) year limited warranty is given on the aforesaid product where used correctly according to the Company's instructions, and only with the use of the Company's components.

1.10 The Company will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1.10.1 Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labour to complete the repair and restore this product to its proper operating condition.; or

1.10.2 Replace this product with a direct replacement or with a similar product deemed by the Company to perform substantially the same function as the original product; or

1.10.3 Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

1.11 The Company is not obligated to provide the Customer with a substitute unit during the limited warranty period or at any time thereafter.

1.12 If this product is returned to the Company this product must be insured during shipment, with the insurance and shipping charges prepaid by the Customer. If this product is returned uninsured, the Customer assumes all risks of loss or damage during shipment. The Company will not be responsible for any costs related to the removal or reinstallation of this product from or to any installation. The Company will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

1.13 Please be aware that the Company's products and components have not been tested with competitor's products and therefore the Company cannot warrant products and/or components used in conjunction with competitor's products.

1.14 The appropriateness of the goods for the purpose intended is only warranted to the extent that the goods are used in accordance with the Company's installation, classification and usage instructions.

1.15 Any claim by the Customer which is based on any defect in the quality or condition of the goods or their failure to correspond with specification shall be notified in writing to the Company within 7 days of delivery or, where the defect or failure was not apparent on reasonable inspection by the Customer, within a reasonable time after discovery of the defect or failure, but, in any event, within 6 months of delivery.

1.16 If delivery is not refused, and the Customer does not notify the Company accordingly, the Customer may not reject the goods and the Company shall have no liability and the Customer shall pay the price as if the goods had been delivered in accordance with the Agreement.

1.17 THE MAXIMUM LIABILITY OF THE COMPANY UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT.