

VideoSplitter HDMI 4K PT

4K HDMI Splitter - Pigtail Type

Installation and Operation Manual



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LIMITED WARRANTY

Rose Electronics® warrants the VideoSplitter HDMI 4K PT to be in good working order for one year from the date of purchase from Rose Electronics or an authorized dealer. Should this product fail to be in good working order at any time during this one-year warranty period, Rose Electronics will, at its option, repair or replace the unit as set forth below. Repair parts and replacement units will be either reconditioned or new. All replaced parts become the property of Rose Electronics. This limited warranty does not include service to repair damage to the Unit resulting from accident, disaster, abuse, or unauthorized modification of the Unit, including static discharge and power surges.

Limited Warranty service may be obtained by delivering this unit during the one-year warranty period to Rose Electronics or an authorized repair center providing a proof of purchase date. If this Unit is delivered by mail, you agree to insure the Unit or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or its equivalent. You must call for a return authorization number first. Under no circumstances will a unit be accepted without a return authorization number. Contact an authorized repair center or Rose Electronics for further information.

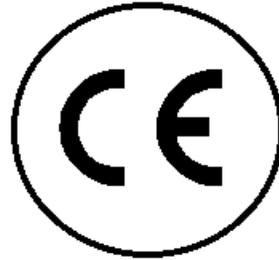
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IF THIS PRODUCT IS NOT IN GOOD WORKING ORDER AS WARRANTIED ABOVE, YOUR SOLE REMEDY SHALL BE REPLACEMENT OR REPAIR AS PROVIDED ABOVE. IN NO EVENT WILL ROSE ELECTRONICS BE LIABLE TO YOU FOR ANY DAMAGES INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF OR THE INABILITY TO USE SUCH PRODUCT, EVEN IF ROSE ELECTRONICS OR AN AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

DECLARATIONS OF CONFORMITY

This is to certify that, when installed and used according to the instructions in this manual, the units listed and described here are shielded against the generation of radio interferences in accordance with the application of Council Directives 2014/30/EU and 2014/30/EU.



This equipment has been found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

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INTRODUCTION

Disclaimer

While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions. Neither does the manufacturer assume any liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change the specifications, functions, circuitry of the product, and manual content at any time without notice.

The manufacturer cannot accept liability for damages due to misuse of the product or other circumstances outside the manufacturer's control. The manufacturer will not be responsible for any loss, damage, or injury arising directly or indirectly from the use of this product (See limited warranty).

System Introduction

Thank you for choosing the Rose Electronics VideoSplitter HDMI 4K PT, a versatile device that can be used in a variety of applications. It enables simultaneous viewing of a single HDMI high definition video source on two HDMI displays. Alternatively, one output can be to an HDMI display and the other to a projector, LCD monitor or HDMI video splitter.

The VideoSplitter HDMI 4K PT is easy to use. Simply connect the unit between the desired video source and the destination displays and the unit is ready to use. No software installation is required.

The VideoSplitter HDMI 4K PT is powered by the HDMI video source and can function without an external power supply. When an (optional) external power is used, the splitter can send signals as far as 45ft away (15m).

The instructions in this manual assume a general knowledge of computer installation procedures, familiarity with cabling requirements, and some experience with video display applications.

Features

- Output HDMI video to two displays
- Supports 16:9 resolutions to 4K@30Hz and 36-bit deep color
- Supports 16:10 resolutions up to 1920×1200@60Hz
- Supports HD multichannel uncompressed audio
- Supports 3D video
- HDMI bus powered, needs no external supply for normal operation
- HDCP compliant
- Input and output active video LED indicators
- Gold plated connectors
- Ideal for classrooms, boardrooms, trade shows, exhibition displays, and retail advertising or display

Package Contents

The package contents consist of the following items:

- VideoSplitter HDMI 4K PT
- User manual

Additional Items that may be required

- HDMI cable CAB-HDMIMF006 (M/F) 6ft (2.0 meter)
 CAB-HDMIMF010 (M/F) 10ft (3.0 meter)
 CAB-HDMIMM006 (M/M) 6ft (2.0 meter)
 CAB-HDMIMM010 (M/M) 10ft (3.0 meter)
- Optional +5V/500mA external power adapter

These items may be ordered separately from Rose Electronics

All references to HDMI cables in this document refer to the maximum recommended distances for each cable type. Maximum recommended cable distances should not be exceeded.

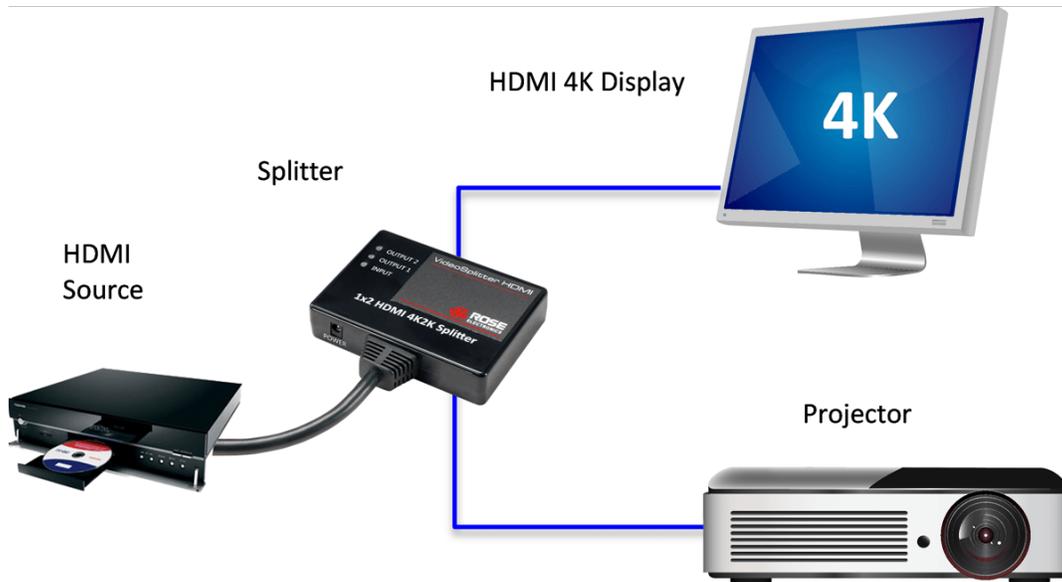


Figure 1. Typical application

INSTALLATION and OPERATION

Installing the VideoSplitter HDMI 4K PT

The VideoSplitter HDMI 4K PT is easy to install. Please ensure you are using high-speed HDMI cables for connection of the output displays and do not exceed the recommended HDMI cable distance length. Connect the VideoSplitter as shown in the diagram below.

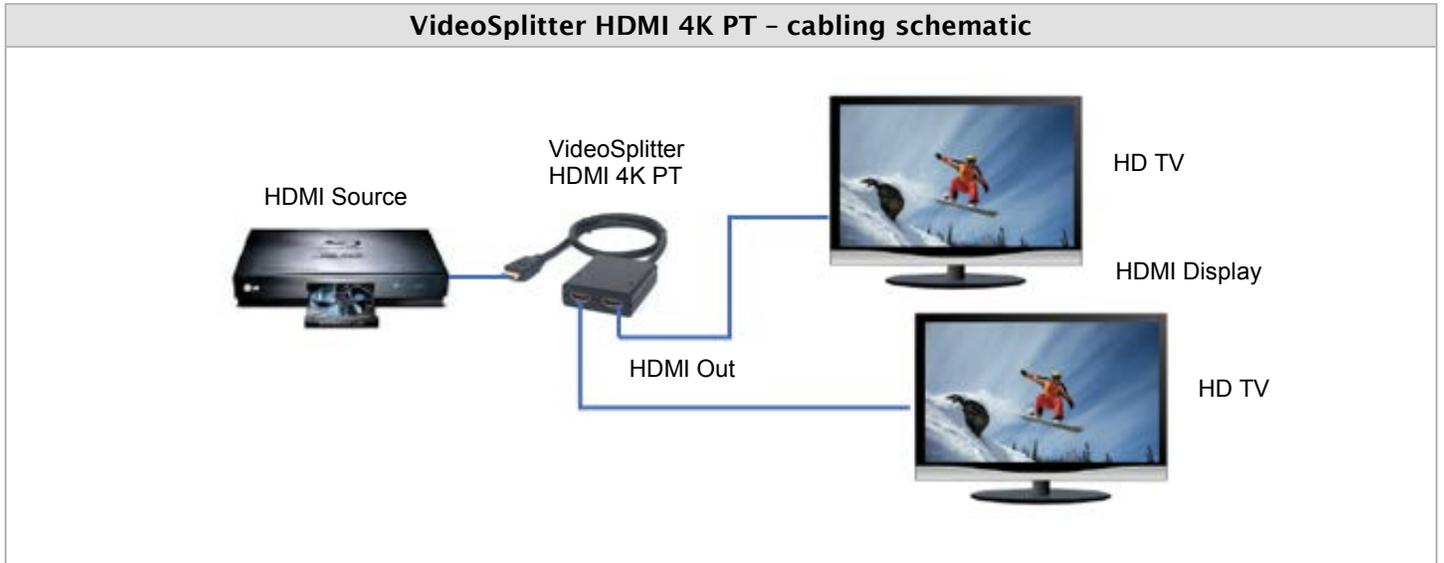


Figure 2. VideoSplitter HDMI 4K PT cabling layout diagram

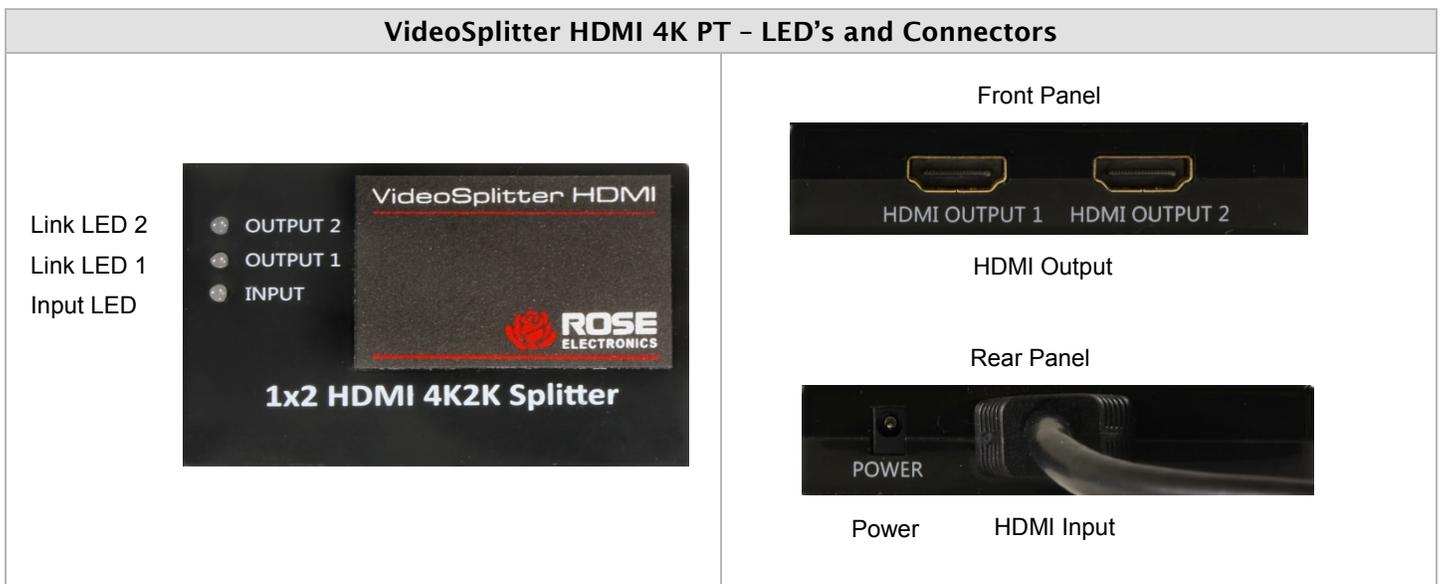


Figure 3. Description of LED's and Connectors

- Link LED's: These two LED's illuminate whenever a video display is connected, and video content is being played
- Input LED: This LED illuminates whenever a connected HDMI source is playing video content
- HDMI Outputs: Connect HDMI displays to these 2 connectors using high speed HDMI cables
- HDMI Input: Connect directly to the HDMI output port of your HDMI source device
- Power: Connect an (optional) +5V/500mA external power supply if you are experiencing transmission difficulties. Normally, the VideoSplitter HDMI 4K PT is HDMI bus powered from the HDMI video source device

Installation Procedure

- Connect the HDMI display cables or HDMI extension cables to the 2 output ports on the VideoSplitter
- Plug the VideoSplitter HDMI into the HDMI video source device
- Power on the HDMI displays
- Power on the HDMI video source device
- Check and verify that each LED is illuminated and that the video content is correctly displayed

Troubleshooting

Problem: There is no video on either display

Check: Verify that the source video device is powered on and playing content
Verify that the HDMI cables are properly secured at each end
Verify that the video input LED is illuminated
There might be under-powered HDMI bus power. Connect the (optional) external +5V/500ma PSU

Problem: Video is present on one display, but not on both displays

Check: Verify the display is powered on and the HDMI input is selected
Verify that the HDMI cables are properly secured at each end
Try swapping out the HDMI cable with a known good cable

Problem: The 1080p video displays correctly, but 4K video does not display correctly

Check: Verify that the 4K video source is 30Hz and not 60Hz. The VideoSplitter does not support 4K60/Hz video input
Try swapping out the HDMI cable with a cable that is known to pass 4K30/Hz video

PRODUCT SAFETY

Safety

The VideoSplitter HDMI 4K PT like all electronic equipment, should be used with care. To protect yourself from possible injury and to minimize the risk of damage to the Unit, read and follow these safety instructions.

- Follow all instructions and warnings marked on this Unit.
- Except where explained in this manual, do not attempt to service this Unit yourself.
- Do not use this Unit near water.
- Assure that the placement of this Unit is on a stable surface.
- Provide proper ventilation and air circulation.
- Keep connection cables clear of obstructions that might cause damage to them.
- Use only power cords, power adapter and connection cables designed for this Unit.
- Keep objects that might damage this Unit and liquids that may spill, clear from this Unit. Liquids and foreign objects might come in contact with voltage points that could create a risk of fire or electrical shock.
- Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from the power source before cleaning.

Remove power from the unit and refer servicing to a qualified service center if any of the following conditions occur:

- The connection cables are damaged or frayed.
- The Unit has been exposed to any liquids.
- The Unit does not operate normally when all operating instructions have been followed.
- The Unit has been dropped or the case has been damaged.
- The Unit exhibits a distinct change in performance, indicating a need for service.

SERVICE AND MAINTENANCE

Maintenance and Repair

This Unit does not contain any internal user-serviceable parts. In the event a Unit needs repair or maintenance, you must first obtain a Return Authorization (RA) number from Rose Electronics or an authorized repair center. This Return Authorization number must appear on the outside of the shipping container.

See Limited Warranty for more information.

When returning a Unit, it should be double-packed in the original container or equivalent, insured and shipped to:

Rose Electronics

Attn: RA _____

10707 Stancliff Road

Houston, Texas 77099 USA

Technical Support

If you are experiencing problems, or need assistance installing your product, consult the appropriate section of this manual. If, however, you require additional information or assistance, please contact the Rose Electronics Technical Support Department at:

Phone: (281) 933-7673

E-mail: TechSupport@rose.com

Web: www.rose.com

Technical Support hours are from: 8:00 am to 6:00 pm CST (USA), Monday through Friday.

Please report any malfunctions in the operation of this Unit or any discrepancies in this manual to the Rose Electronics Technical Support Department.

APPENDICES

Appendix A – Specifications

Part Numbers	Description
VS-1x2HDMI-4K/PT	VideoSplitter HDMI 4K PT
CAB-HDMIMM006	HDMI M/M 6ft (2.0m) cable (optional)
CAB-HDMIMM010	HDMI M/M 10ft (3.0m) cable (optional)
TFR-05D250FSUB1.3F	External +5V PSU (optional, use only if required)
Chassis Dimensions (W x D x H) and Weight	
Dimensions	3.2 × 2.3 × 0.7-inch, (81.3 × 58.4 × 18 mm)
Power Requirements	
Power Source	HDMI Bus Powered. (Optional +5VDC, 500mA external PSU)
Video	
Video resolutions supported	Video Resolution 4:3 480i, 480p, 576i, 576p Video Resolution 16:9 720p, 1080i, 1080p, 4K/30Hz (3840×2160) Video Resolution 16:10 1920×1200/60Hz
Video bandwidth	340MHz per channel, 10.2GHz total
Data throughput	10.2Gbps total
Connectors	
Input	1 × HDMI Type A (male) video input (HDMI pigtail cable length 23-inch (585mm)) 1 × DC power (optional)
Output	2 × HDMI Type A (female) video output
LED's	
Input Signal	1 × LED
Output Signal	2 × LEDs
Environmental	
Operating Temp	32°F to 104°F (0°C to 40°C)
Storage Temp	-4°F to 140°F (-20°C to 60°C)
Operating Humidity	20-90% relative, non-condensing
Approvals	
	FCC Part 15, Class B and ICES-003

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