



CPLUS-V4E

1 by 4 6G HDMI Splitter



4K2K

HDCP 2.2

Operation Manual



DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. Cypress Technology assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

Cypress Technology assumes no responsibility for any inaccuracies that may be contained in this document. Cypress also makes no commitment to update or to keep current the information contained in this document.

Cypress Technology reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from Cypress Technology.

© Copyright 2015 by Cypress Technology.

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.





SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE (DD/MM/YY)	SUMMARY OF CHANGE
RDV1	02/07/15	Preliminary release



CONTENTS

1. Introduction	1
2. Applications	1
3. Package Contents	1
4. System Requirements	1
5. Features	2
6. Operation Controls and Functions	3
6.1 Front Panel	3
6.2 Rear Panel.....	4
7. Connection Diagram	5
8. Specifications	6
8.1 Technical Specifications	6
8.2 Supported Resolutions	7
9. Acronyms	8





1. INTRODUCTION

The 1 by 4 HDMI Splitter with HDCP 2.2 is advanced solution for splitting a single HDMI input to 4 HDMI outputs. It provides high performance audio and video output through HDMI cables up to 4K2K@60Hz (YUV444) resolution and is capable of provide high quality of audio and video performance. It supports high resolution digital audio formats such as LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus, Dolby Atmos and DTS-HD Master Audio, audio sampling rate up to 192kHz. There are input and outputs indications on panel, which will illuminate when detected, system reset function allows the unit trigger TV to device's HDMI input immediately.

2. APPLICATIONS

- Entertainment Room / Home Theater
- Show Room / Demo Room
- Lecture Room/Hall Presentation
- Show Room/Demo Room
- Public Commercial Display

3. PACKAGE CONTENTS

- 1×1 by 4 HDMI splitter
- 1×5V/2.6A DC Power Adaptor
- 1×Operation Manual

4. SYSTEM REQUIREMENTS

Input source equipments such as Blu-ray/DVD/PS3 player or Set-Top-Box or any 6G with HDCP2.2 source. And output with 6G HDMI TV/ Display and or audio amplifier with connection cables.

Note: To achieve 6G performance will need to collocation with particular HDMI cable to get the better quality.

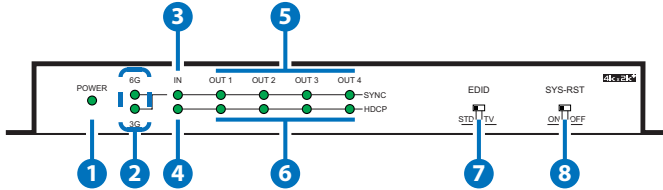
5. FEATURES

- HDMI 2.0 with 4Kx2K 6G supported, HDCP 2.2 and DVI compliant (Not support Deep color and Color space YCbCr 422/444)
- 1 HDMI input and 4 HDMI outputs
- System Reset function supported (CEC active source command)
- Displays any of 1 Ultra High-Definition sources on 4 UHDTV displays simultaneously
- 3D pass-Through
- Supports UHDTV resolutions up to 4Kx2K (3840x2160@24/25/30/50/60 & 4096x2160 @24/25/30/60)
- Supports LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby TrueHD, Dolby Atmos and DTS-HD Master Audio
- HDCP 2.2 and HDCP1.4 compliant
- Input port EDID support Standard and TV mode

Note: When displaying HDMI 4Kx2K signal, equivalent source signal, output display and HDMI cables are required in order to secure the best image display.

6. OPERATION CONTROLS AND FUNCTIONS

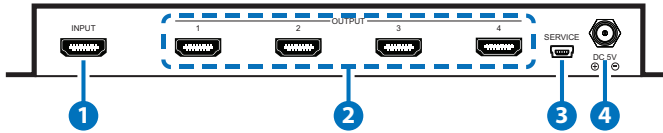
6.1 Front Panel



- 1 POWER:** This LED will illuminate when the device is connected to an active power supply.
- 2 6G/3G:** When input source bandwidth is 6G, the 6G LED will illuminate, when input source detect as 3G, the 3G LED will illuminate.
- 3 IN SYNC:** When input detected, the LED will illuminate, the LED will flicker when detected abnormal, for example, when source signal not stabled, and when input is not connected, the LED light will off.
- 4 IN HDCP:** When Input HDCP has been detected, the LED will illuminate, the LED will flicker when HDCP abnormal, for example when HDCP version is not supported, and when no HDCP detected, the LED will off.
- 5 OUT 1~4 SYNC:** When output detected, the LED will illuminate, the LED will flicker when detected abnormal, for example, when output connected but the output sense is off, and when output is not connected, the LED will off.
- 6 OUT1~4 HDCP:** When output HDCP working, the LED will illuminate, the LED light flicker when HDCP abnormal, for example, when HDCP version is not supported, and when no HDCP detected, the LED will off.
- 7 EDID:** Switch the dip could choose EDID mode to Standard (STD) mode or TV mode. When on TV mode, the unit will automatically detect and store output 1 sink EDID data, if switch to STD mode and reboot the unit, the unit will search the suitable resolution out of all connected display and with standard 1080p and PCM 2 channel.
- 8 SYS-RST:** Switch the dip from off to on, the unit will trigger TV to it's

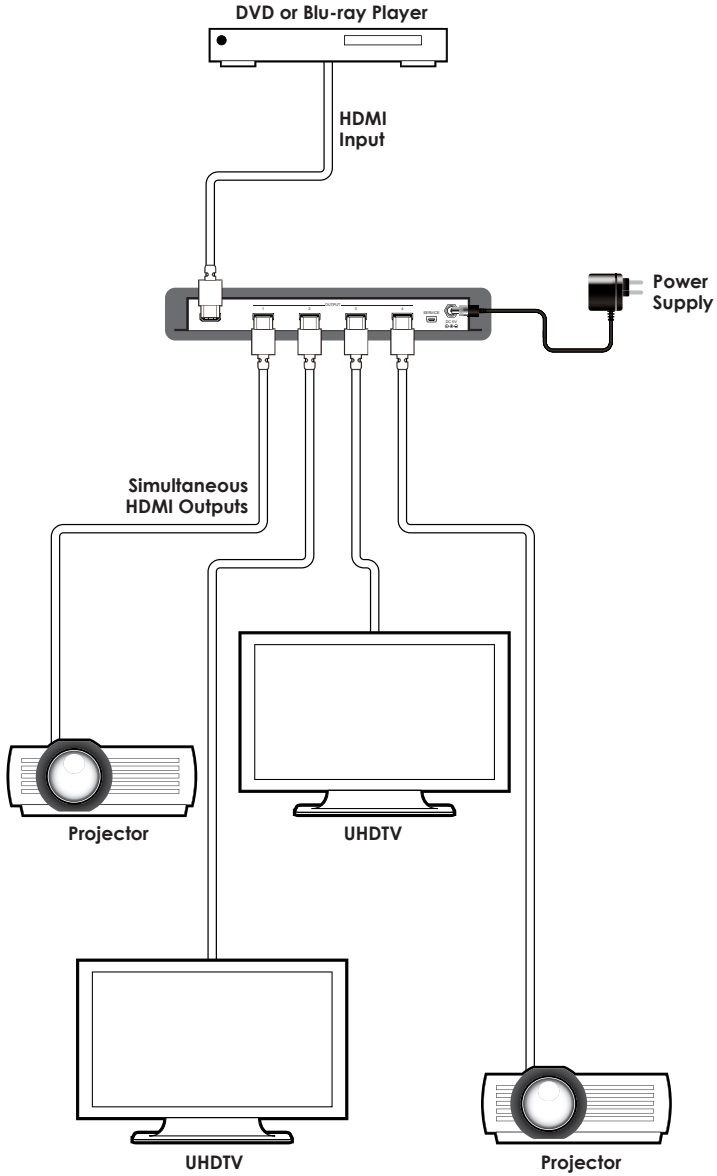
HDMI input immediately, when dip stays in on, the unit will trigger cycle in every 8~10 minutes. (*The purpose of reset is to guarantee output display the corresponding image, for example, at the display user use may switch to different HDMI input or other sources connected to display and this reset function will force the display to switch back to the HDMI input which TV shall support CEC.)

6.2 Rear Panel



- 1 INPUT:** Connect with HDMI source equipment such as DVD/Blue-ray players and or PC/Laptop devices.
- 2 OUTPUT 1~4:** Connect to HDMI TV / display or HD amplifier for output display.
- 3 SERVICE:** This is reserved for firmware update use only.
- 4 DC 5V:** Connect the adapter which included in the package and connect to AC wall outlet for power supply.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	600MHz/18Gbps
Input Ports	1×HDMI, 1×USB (Service only)
Output Ports	4×HDMI
HDMI Resolutions	VGA~WUXGA (RB), 408i~1080p@24/50/60, 4K@24/25/30, 4K@50/60 (YUV444)
HDMI Cable Distance	? m@1080p/8-bit, ? m@1080p/12-bit, 5m@4K
Power Supply	5V/2.6A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Dimensions	231.5mm (W)×108mm (D)×25mm (H)/ Jack Excluded 231.5mm (W)×118mm (D)×30mm (H)/ Jack Included
Weight	616g
Chassis Material	Metal
Color	Black
Operating Temperature	0°C~40°C/32°F~104°F
Storage Temperature	-20°C~60°C/-4°F~140°F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	3.42W

Note: HDMI cable distance might affected by material or design of cable.



8.2 Supported Resolutions

Resolution	Input	Output
640×480@60/72/75/85	√	√
720×400@85	√	√
800×600@56/60/72/75/85	√	√
1024×768@60/70/75/85	√	√
1152×864@75	√	√
1280×720@60	√	√
1280×768@60/75/85	√	√
1280×800@60	√	√
1280×960@60	√	√
1280×1024@60	√	√
1360×768@60	√	√
1366×768@60	√	√
1400×1050@60	√	√
1440×900@60	√	√
1600×900@60	√	√
1600×1200@60	√	√
1680×1050@60	√	√
1920×1080@60	√	√
1920×1200@60	√	√
1920×1440@60	√	√
2560×1600@60	√	√
1440×576i@50	√	√
1440×480i@59.94/60	√	√
720×480p@59.94/60	√	√
720×576p@50	√	√
1280×720p@50/59.94/60	√	√
1920×1080i@50/59.94/60	√	√

Resolution	Input	Output
1920×1080p@23.97/24/25/29.97/30/50/59.94/60	√	√
3840×2160@24/25/30/50/60	√	√
4096×2160@24/25/30/50/60	√	√

9. ACRONYMS

ACRONYM	COMPLETE TERM
CEC	Consumer Electronics Control
DTS	Digital Theater System
DVI	Digital Visual Interface
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television
IR	Infrared
USB	Universal Serial Bus
VGA	Video Graphics Array
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduce Blanking)



CYPRESS TECHNOLOGY CO., LTD
Home page: <http://www.cypress.com.tw>

MPM-CPLUSV4E