



**4K2K**

**HDCP2.2**



# QU-110S-4K22

**1 to 10 HDMI Distribution Amplifier (4K resolution support & HDCP 2.2)**

**OPERATION MANUAL**



## **DISCLAIMERS**

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

CYP (UK) Ltd assumes no responsibility for any inaccuracies that may be contained in this document. CYP (UK) Ltd also makes no commitment to update or to keep current the information contained in this document.

CYP (UK) Ltd 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 CYP (UK) Ltd.

© Copyright 2011 by CYP (UK) Ltd.

All Rights Reserved.

Version 1.1 August 2011

## **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	SUMMARY OF CHANGE
v1.00	22/07/2015	First release

# CONTENTS

<b>1. Introduction .....</b>	<b>6</b>
<b>2. Applications .....</b>	<b>6</b>
<b>3. Package Contents .....</b>	<b>6</b>
<b>4. System Requirements .....</b>	<b>6</b>
<b>5. Features.....</b>	<b>7</b>
<b>6. Operation Controls and Functions .....</b>	<b>7</b>
6.1 Front Panel .....	7
6.2 Rear Panel.....	8
<b>7. Connection Diagram .....</b>	<b>9</b>
<b>8. Specifications.....</b>	<b>10</b>
8.1 Technical Specifications .....	10
8.2 Supported Resolutions.....	11
<b>9. Acronyms.....</b>	<b>11</b>

## 1. INTRODUCTION

The QU-110S-4K22 Distribution Amplifier (splitter) accepts one HDMI input and splits this signal to 10 identical HDMI outputs. The QU-110S-4K22 is v1.4 HDMI compliant, HDCP2.2 compliant, supports 4K resolutions, 3D Video signals, 'Deep Colour' and High Definition Audio. Each buffered output can run 1080p/8-bit up to 20 metres and can also be cascaded up to 3 layers.

## 2. APPLICATIONS

- /// Split a single HDMI input to ten HDMI displays
- /// Showroom display
- /// Educational demo
- /// Commercial advertisement

## 3. PACKAGE CONTENTS

- /// 1 By 10 HDMI Splitter
- /// 5V/6A Power Adaptor
- /// Power Cord
- /// Operation Manual

## 4. SYSTEM REQUIREMENTS

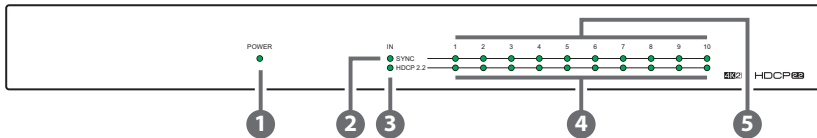
HDMI source equipment such as DVD/Blu-ray player and output HD display/Monitor with HDMI cables.

## 5. FEATURES

- /// v1.4 HDMI, HDCP compliant (including HDCP 2.2) and DVI 1.0 compliant
- /// HDMI 1 to 10 Splitter
- /// Supports resolutions VGA~WUXGA, 480i~1080p, 4K UHD@24/25/30Hz (RGB 4:4:4 & YUV 4:2:2), 4K UHD@ 60Hz (YUV 4:2:0), 4K/2K@24/25/30Hz (RGB 4:4:4 & YUV 4:2:2) and 4K/2K@ 60Hz (YUV 4:2:0) dependent upon the output display's EDID settings
- /// High Definition Audio Supported: Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio plus LPCM
- /// Auto signal amplification & equalisation improves signal transmission distances
- /// Supports deep colour, 3D signals and xvYCC
- /// CEC Bypass Feature
- /// Selectable EDID settings - TV (downstream) and STD (fixed)

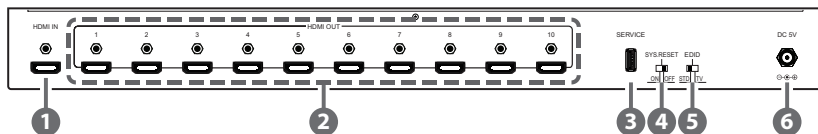
## 6. OPERATION CONTROLS AND FUNCTIONS

### 6.1 Front Panel



- 1 POWER LED:** This LED will illuminate in green when the device is powered On.
- 2 SYNC IN LED:** This LED will illuminate when the device is connected to an active HDMI source signal.
- 3 HDCP 2.2 IN LED:** This LED will illuminate when the source signal is HDCP 2.2 encrypted.
- 4 HDCP 2.2 LED 1~10:** These LEDs will illuminate when the output HDMI displays are HDCP 2.2 encrypted.
- 5 SYNC LED 1~10:** These LEDs will illuminate when the Hot-Plug Detection (HPD) from the display TV/monitors is detected.

## 6.2 Rear Panel



- 1 **HDMI IN:** Connect to HDMI equipped source equipment such as a Blu-ray player, games console, Set-top Box or any HDMI equipped source device.
- 2 **HDMI OUT 1~10:** Connect to HDMI TVs/displays or AV receiver for output of video and/or audio.
- 3 **SERVICE:** This slot is reserved for manufacturer use only.
- 4 **SYS. RESET ON/OFF:** Set this switch to the ON position will allow the device to reset the output to show the source every 10 minutes.

It will force the connected TV/display to switch to the HDMI port that the device is connected to ensure the correct input is always displayed. The reset will be performed sequentially from 1~10 with 1 minute a port. The default setting is OFF, leave as it is to disable the reset function.

*Note: TV/monitor must be CEC compatible for this feature to function properly.*

- 5 **EDID STD/TV:** Use this switch to set HDMI EDID's setting.

**TV:** When in 'TV' mode, the unit will read the EDID settings of the display device connected to HDMI OUT 1. If it detects a 4Kx2K capable EDID setting it will transmit the signal in that format to all outputs. If no 4Kx2K capable EDID is detected then the unit will output the best resolution that all displays can support.

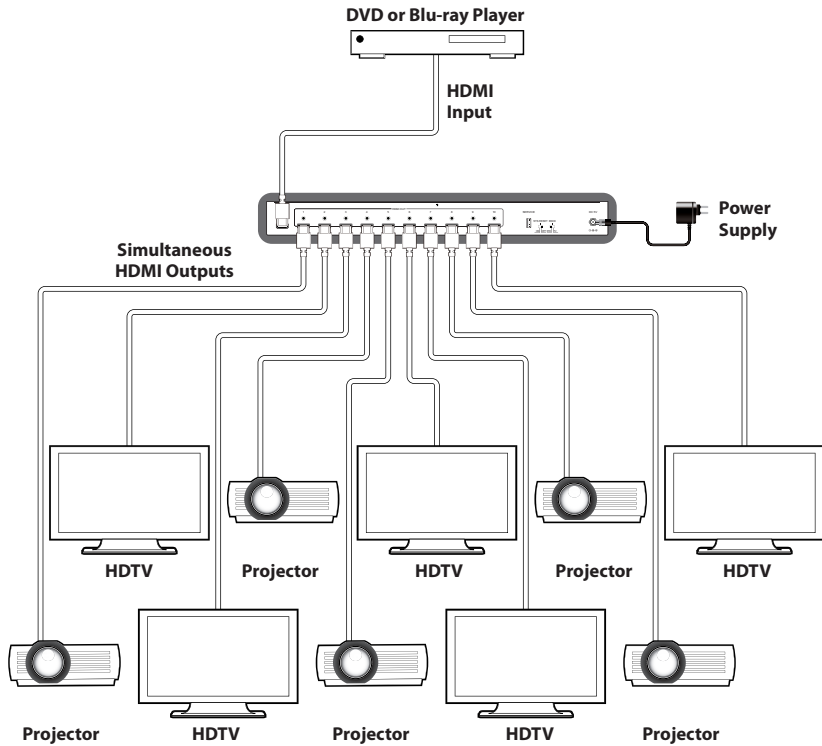
*NOTE: When Output 1 is connected to a 4Kx2K display and Outputs 2-4 are connected to non-4K displays no picture may be displayed. To ensure proper display all screens must all be capable of displaying the same resolution.*

**STD:** When in 'STD' mode, the unit will use its own built-in EDID settings. In this mode, the video output will be set to 1080p@60Hz and the audio output at LPCM 2CH Stereo. Use this mode if there are display problems in TV Mode..

- 6 **DC 5V:** Connect the adaptor included in the package and connect to AC wall outlet for power supply.



## 7. CONNECTION DIAGRAM



## 8. SPECIFICATIONS

### 8.1 Technical Specifications

<b>Video Bandwidth</b>	300 MHz/9 Gbps
<b>Input Ports</b>	1×HDMI, 1×USB (Service only)
<b>Output ports</b>	10×HDMI
<b>HDMI I/O Cable Length</b>	10m@1080p, 5m@4K2K
<b>Power Supply</b>	5V/6 A DC (US/EU standards, CE/FCC/UL certified)
<b>ESD Protection</b>	Human Body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
<b>Dimensions</b>	436 mm (W)×160 mm (D)×44 mm (H)/Jacks Excluded 436 mm (W)×165.5 mm (D)×49 mm (H)/Jacks Included
<b>Weight</b>	1856 g
<b>Chassis Material</b>	Metal
<b>Silkscreen Color</b>	Black
<b>Operating Temperature</b>	0 °C~40 °C / 32 °F~104 °F
<b>Storage temperature</b>	-20 °C~60 °C / -4 °F~140 °F
<b>Relative Humidity</b>	20~90 % RH (no condensation)
<b>Power Consumption</b>	16W

## 8.2 Supported Resolutions

Resolution	Input	Output
<b>640×480@60/72/75</b>	✓	✓
<b>720×480@60</b>	✓	✓
<b>720×576p@50</b>	✓	✓
<b>800×600@60/72/75</b>	✓	✓
<b>1024×768@60/70/75</b>	✓	✓
<b>1280×720@50/60</b>	✓	✓
<b>1280×720p@60</b>	✓	✓
<b>1280×768@60</b>	✓	✓
<b>1280×800@60</b>	✓	✓
<b>1280×1024@60</b>	✓	✓
<b>1360×768@60</b>	✓	✓
<b>1600×1200@60</b>	✓	✓
<b>1920×1080i@50/60</b>	✓	✓
<b>1920×1080i@60</b>	✓	✓
<b>1920×1080p@24/25/30/50/60</b>	✓	✓
<b>1920×1200@60 (RB)</b>	✓	✓
<b>3840×2160@24/25/30</b>	✓	✓
<b>3840×2160@50/60 (YUV420)</b>	✓	✓
<b>4096×2160@24/25/30</b>	✓	✓
<b>4096×2160@50/60 (YUV420)</b>	✓	✓

## 9. ACRONYMS

ACRONYM	COMPLETE TERM
<b>DTS</b>	Digital Theater System
<b>EDID</b>	Extended Display Identification Data
<b>HDCP</b>	High-bandwidth Digital Content Protection
<b>HDMI</b>	High-Definition Multimedia Interface
<b>HDTV</b>	High Definition Television



---

CYP (UK) Ltd., Unit 7, Shepperton Business Park, Govett Avenue, Shepperton,  
Middlesex, TW17 8BA

Tel: +44 (0) 20 3137 9180 | Fax: +44 (0) 20 3137 6279

Email: [sales@cypeurope.com](mailto:sales@cypeurope.com)

[www.cypeurope.com](http://www.cypeurope.com)

v1.00