CDP-13DPI

1 by 3 DisplayPort Extender Splitter

Operation Manual

CDP-13DPI

CYP

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

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 or 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 module openings or empty slots, as you may damage parts.
➢ Do not attach the power supply cabling to building surfaces.
➢ Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
➢ To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	Date	Summary of Change
V1	20100317	Preliminary Release

Table of Contents

1. Introduction

For those who want to display large content the 1x3 DisplayPort Extender Splitter is for you. Able to extend an image onto 2 or 3 displays, this device is perfect for multi-tasking, but can also split an image so the same image is repeated on up to three connected displays. This 1 by 3 DisplayPort Extender Splitter allows users to enjoy images or video in HD resolution up to 1920 x 1200 on multiple monitors from a single digital output port. The 1 by 3 DisplayPort Extender Splitter is a useful device for extending displays and splitting images.

2. Applications
● Home & office display
● Gaming

3. Package Contents
● 1 by 3 DisplayPort Splitter
● 3.3V DC Power Supply
● Operation Manual

4. System Requirements

Input source equipment such as a PC or any DisplayPort output device with a DisplayPort connection cable.
Output display such as a PC monitor or any DisplayPort input display with DisplayPort connection cable.

5. Features
● Supports DisplayPort v1.1a, VESA DDM Standard, HDCP v1.3 and EDID v1.4
● Supports link rates of 2.7Gbps (HBR) and 1.62Gbps (RBR) from the source.
● Fully HD compatible and provides full display performance with zero lag and no display application limitations
● Does not require software updates
● Quality Lab (WHQL) testing/qualification
● Supports output resolutions up to 1920 x 1200
● Works with any desktop and notebook computer which have a DisplayPort output port
● Provides exceptional Secured Content Protection with HDCP 1.3 for digital content including video and audio
● Plug and Play

6. Specifications

|	
Output Resolution	1920 x 1200 / 1920 x 1024
Input port	1 x DisplayPort
Output ports	3 x DisplayPort
Power Supply	3.3V / 1.5A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ± 8kV (air-gap discharge) ± 4kV (contact discharge)
Dimensions(mm)	100 (W) x 70 (D) x 20 (H)
Weight(g)	90
Chassis Material	Plastic
Silkscreen Color	White
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C~60°C / -4°F ~ 140°F
Power Consumption	3W
Relative Humidity	20~90% RH (non-condensing)

7. Operation Controls and Functions

7.1 Front & Right Panel
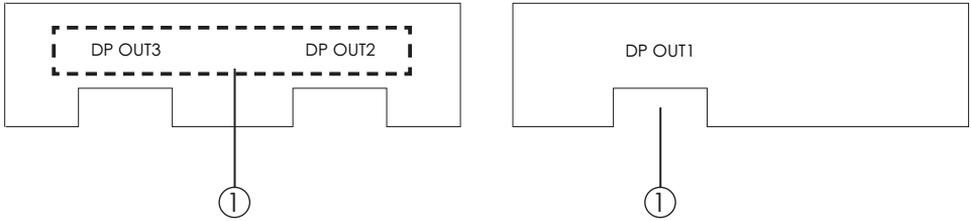
① DP OUT 1~3: Connect these slots with the output displays Display port input port in order to send a signal.

Note: It is suggested to use the same type/model of display in order to get the optimal image quality. When the input source's timing is matched with the output display's timing, the device will first extend the image according to the numbers of the output connected. If the input sources timing does not match with output display's timing the device will then split the signal to match the number of the connected display to show an identical image. (Detail information please refer to section 8. Timing table for monitors).

7.2 Right Panel
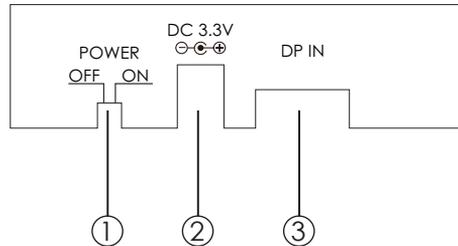
① On/off switch: Push this switch to turn the device on or off. The green LED will turn on when the device is switched on.

② DC 3.3V: This slot is where you plug the 3.3V DC power supply into the unit and connect the adaptor to an AC outlet.

③ DP IN: This slot is where you connect the input source equipment such as a PC or any output device that has a DisplayPort.

7.3 Top Panel
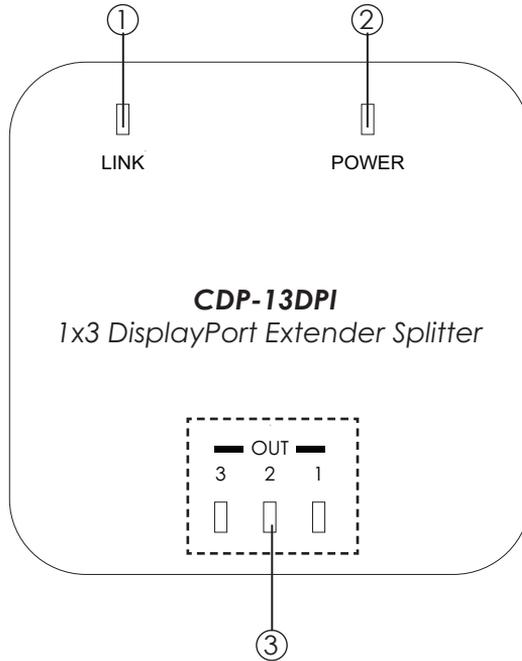
① LINK LED: The green LED will turn on when the input source device is connected.
② POWER LED: The green LED will switch on when the device is powered on.
③ OUT 1~3 LED: The green LED will turn on when the output port is connected with the output display.

8. Timing tables for monitor

The 1 by 3 DisplayPort splitter is a smart device with a built in feature that can define which and how many monitors are connected and can transmit the proper signal for the display. Below is the expanded timing list which is supported by the device.

Two monitors mode		
From PC	To monitor	Vertical refresh rate (Hz)
3840 x 1200	1920 x 1200	60
2560 x 1024	1280 x 1024	60
2048 x 768	1024 x 768	60
3360 x 1050 * 1	1680 x 1050	60
3200 x 1200 * 1	1600 x 1200	60
2880 x 900 * 1	1440 x 900	60
1600 x 600 * 1	800 x 600	60
1280 x 480 * 1	640 x 480	60
2800 x 1050 * 1	1400 x 1050	60

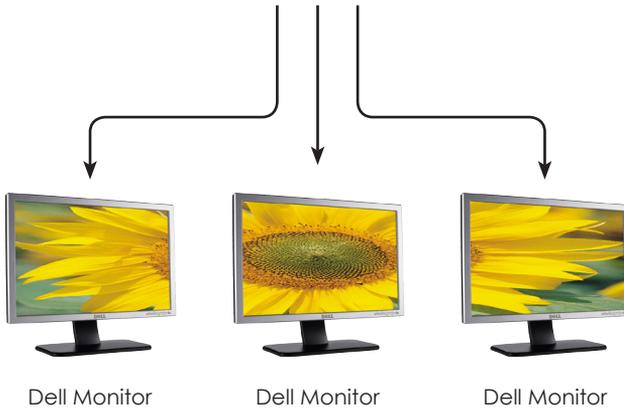| Three monitors mode		
From PC	To monitor	Vertical refresh rate (Hz)
3840 x 800	1280 x 800	60
3840 x 1024	1280 x 1024	60
3072 x 768	1024 x 768	60
2400 x 600 * 1	800 x 600	60
1920 x 480 * 1	640 x 480	60
4080 x 768 * 1, * 2	1360 x768	60
3840 x 720 * 1	1280 x 720	60
2160 x 480 * 1	720 x 480	60
3840 x 960 * 1	1280 x 960	60

Note:
*1. The timing is listed out in EDID extension block. Some old GPU driver may not support it.
*2. The total horizontal pixel include the active area and blank area is large than 4096, some GPU driver may not support the timing.

9. Connection and Installation

Dell PC/Notebook

Dell Monitor Dell Monitor Dell Monitor

or

Dell Monitor Dell Monitor Dell Monitor

Acronyms

A

Acronym	Complete Term
EDID	Extended display identification data
GPU	Graphics Processing Unit
HDCP	High-bandwidth Digital Content Protection