

User's Manual
1x10 HDMI Distribution Amplifier
HD-D110



Cautions:

1. Digitalextender® logo is our own trademark of RTcomUSA., Inc.
2. Any of the products may be changed without any notice in order to improve the function of the product.
3. The design and specification of the product may be changed without any prior notice.

Unpacking

Each DigitaIxtender HDMI Distributor package includes the following items;

- HD-D110 HDMI Distribution Amplifier Unit x 1
- 12V Power Supply Adapter x 1
- AC Power Cord x 1
- User manual x 1

Declaration of Conformity

According to Council Directive 73/23/EEC (February 19, 1973) on the Harmonization of the Laws of Member States relating to Electrical Equipment; Council Directive 89/336/EEC (May 3, 1989) on Electromagnetic Compatibility; Council Directive 93/68/EEC (July 22, 1993)-Amending Directives 89/336/EEC (MC) and 73/23/EEC (Low Voltage Equipment Safety), and/or CPU Boards and Power Supplies used Council Directive 93/68/EEC with Distributor, RTcomUSA, Inc., 286 Houses Corner Rd. Sparta, NJ 09871 973-383-4878, declares under sole responsibility, that the product identifies with 93/66/EEC of the Council Directive Low Voltage Equipment Safety. Each product marketed is identical to the representative unit tested and found to be compliant with the standards.

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1 Description, General Specification

Digitalextender® HD-D110 HDMI Distribution Amplifiers, allow one digital video sources to be spilt into multiple digital displays.

The built-in amplification function enables HDMI signal distribution without signal loss.

ITEM	DESCRIPTION
Model Name	HD-D110
Input Signal	HDMI Single Link , 1port
Output Signal	HDMI Single Link , 10ports,
Internal EDID Resolution	640x480, 800x600, 1024x576 1280x720, 1920x1080 480i/p , 720i/p , 1080i/p
External EDID Resolution	Up to WUXGA Up to 1080P
HDCP Support	OK
Power Consumption	DC +12V ,13W Max
Dimension	343(W) x 163(D) x 45(H) mm
Weight	1.7 Kg

2 Main Features

High Quality Picture - No Signal Loss and Digital Noise Free

Our Distribution Amplifiers are built to deliver the highest quality picture preserving the native resolutions of the video and audio sources without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stages of connection when using distribution amplifiers, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality.

Signal Amplification for signal reliability and long length signal transmission.

Our 12V power adapter supplies adequate power to amplify the video signals from the video source. This is necessary as the overall length from the video source to the displays is longer when using the distribution amplifiers (distance from the video source to the distribution amplifier + distance from the distribution amplifier to the display). In most cases, the overall distance that the HDMI signal will need to travel is over 10ft. Due to the nature of HDMI signals, amplification is necessary to warrant the video quality and reliability. (Without amplification, there may be occasional blackouts or blinking effects or no sound) With this amplification feature, your video display can be extended up to 50ft using high quality HDMI copper cables.

Select External EDID Data

HD-D110 Distributor has EEPROM for store user's display EDID data and supports any of the VESA standard monitor with maximum resolutions, User can select factory pre-programmed EDID data or want to use external EDID data simply. If you use DVI monitor, should set up for external EDID first. Please refer to the "External EDID set up" page 6.

HDCP (High-bandwidth Digital Content Protection) Compliant

Our HDMI distribution amplifiers are fully HDCP compliant. Many video sources such as DVD players and Satellite/Cable Receivers are HDCP encrypted. For these video sources to be displayed correctly, Must be HDCP compliant devices (e.g., TV / Projector, HDMI Receiver, Distribution amplifier) are required.

3 Video Connection

1. Connect your video source's HDMI output port to the HD-D110's HDMI input port using standard HDMI cables (not included). Make sure your entire HDMI source and the displays are turned off before connecting the cables.
2. Connect your HDMI display's HDMI input port to HD-110's HDMI output port. Make sure your HDMI display is turned off before connecting the cables.
3. Plug the 12V power supply into the switch's power input port.
4. Plug the 12V wall mount power supply into the wall outlet.
5. Turn on Distributor power.
6. Turn on your displays.
7. Turn on your video source.

External EDID and Internal EDID Set up

I. External EDID Set up

1. Disconnect all HDMI cable,
2. Connect Monitor or HDTV to "**OUTPUT 1**" back panel of Distributor
3. Turn on distributor and HDTV power
4. Push and hold the "EXTERNAL EDID" button in front of HD-D110 (4 sec)
5. Until RED LED light is on.
6. Turn off distributor
7. Reconnect all device follow the "**Video Connection**"

II. Internal EDID Set up

If you use EDID parameters factory pre-programmed inside the Distributor

1. Disconnect all HDMI cable
2. Turn on distributor power
3. Push and hold the "INTERNAL EDID" button front of HD-D110 (4 sec)
4. Until RED LED light is on.
5. Turn off distributor
6. Reconnect all device follow the "**Video Connection**"

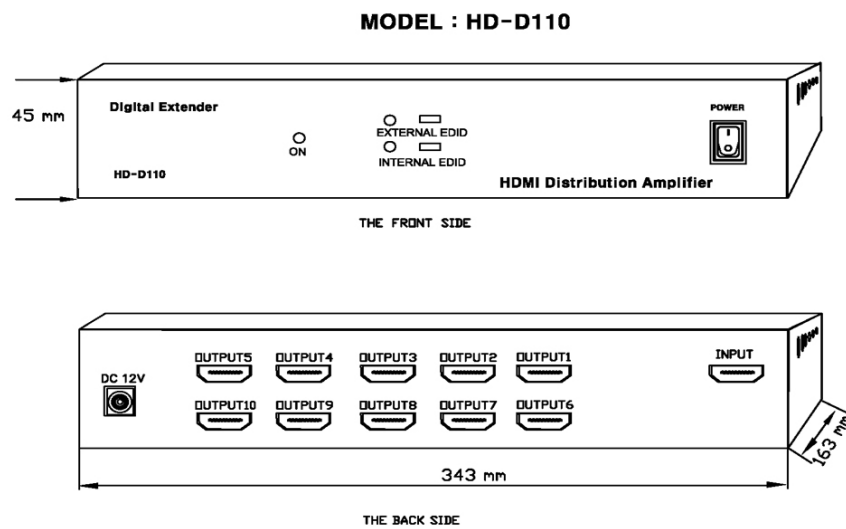
**** EDID [Extended Display Identification Data]

EDID is defined by a standard published by the Video Electronics Standards Association (VESA). The EDID includes manufacturer name, product type, phosphor or filter type, timings supported by the display, display size, luminance data and (for digital displays only) pixel mapping data.

4 Mechanical Specification

Dimensions

HD-D110: 343(W) x 163(D) x 45(H) mm



DC 12V: DC Power Input (+12 V)

POWER: Power On / Off Switch

ON: Power On / Off Indication LED

INPUT: HDMI Input Signal

OUTPUT 1 ~ 10: HDMI Output Signals

EXTERNAL EDID: External EDID Setting Switch

INTERNAL EDID: Internal EDID Setting Switch

5 Technical Specification

Frequency bandwidth: 1.65 Gbps (Single Link)

Supporting Graphic Resolution: 640x480, 800x600, 1024x576

1280x720, 1920x1080

480i/p, 720i/p, 1080i/p

External EDID: Up to WUXGA(1920x1200), HDTV 1080P

Inputs: HDMI Female 1 port

Output: HDMI Female 10 ports

Power supply: DC 12V, 3A Adapter included.

Connector Pin Assignment

HDMI Input, Output

Part No.	Pin No.	Description	Remarks
HDMI 19pin	1	TMDS DATA 2P	
	2	TMDS DATA 2 Shield	
	3	TMDS DATA 2M	
	4	TMDS DATA 1P	
	5	TMDS DATA 1 Shield	
	6	TMDS DATA 1M	
	7	TMDS DATA 0P	
	8	TMDS DATA 0 Shield	
	9	TMDS DATA 0M	
	10	TMDS Clock P	
	11	TMDS Clock Shield	
	12	TMDS Clock M	
	13	CEC	
	14	RESERVED	
	15	DDC Clock	
	16	DDC DATA	
	17	GND	
	18	+5v	
	19	Hot Plug Detect	

6 Warranty Information

1 (One) Year Warranty

RTcomUSA, Inc. warrants this DigitaIxtender® HD-D110 HDMI Distribution Amplifiers to be free from defects in workmanship and materials, under normal use and service, for a period of one (1) year from the date of purchase from RTcomUSA Inc. or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, RTcomUSA, Inc. shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or parts to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of RTcomUSA, Inc.

Replacement products may be new or reconditioned.

Any replaced or repaired product or parts has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

RTcomUSA, Inc. shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to RTcomUSA, Inc. for repair under warranty or not.

Warranty Limitation and Exclusion

RTcomUSA, Inc. shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by RTcomUSA, Inc. or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.

7 Troubleshooting

Problem	Solution
Distribution Amplifier will not operate	<p>Make sure the 12V power is plugged in the back of the unit. Check to see if the power LED light is on.</p>
No picture(or signal) Or Poor picture	<ol style="list-style-type: none"> 1. In case your video source is HDCP enabled, make sure your video display (HDTV) is HDCP compliant. 2. If you are using copper based HDMI cable, overall length of the cables (length of the cable from video source to distributor and length of the cable from distributor to display) should not exceed 50ft. Exceeding 50ft. with copper based cables will result in no or poor picture quality. To extend beyond 50ft, please use fiber optical HDMI extension cables such as RTcomUSA, Model OC series cables. 3. Use high quality HDMI cables. 4. If you are using computers, try other refresh rate settings. Most HDTV's have refresh rate of 48Hz and computer's video cards are usually set at higher refresh rate (60Hz). Try lower refresh rates. 5. Make sure all HDMI connectors are tightly secured to all HDMI ports. 6. Turn off all equipments (video source, distributor and HDTV) and restart all equipments.
Incorrectly sized picture /resolution or No picture	<p>Please remember that your video source will only support one resolution setting. If To connect 1600x1200 resolution display and 800x600 resolution display, the resolution setting of your video source must be set to the lower resolution setting (800x600) OR, Set up External EDID for the 800x600 display, Refer to the page 1-5 "Video Connection".</p>
Poor picture with DVI Monitor / TV.	<p>Set up for External EDID of your DVI monitor, Please refer to the "3 Video Connection" page 6</p>

RTcomUSA Locations

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For order support, please contact your Distributor or Reseller.

For technical support, check with the Web site: www.digitalextender.com
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