



Total Digital Connectivity Solutions

## ***User Manual***

***1x5 HDMI Distribution Amplifier***

***2x5 HDMI Distribution Amplifier***

***HD-D105 / HD-D205***

**Cautions:**

1. Digitaextender 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.

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# 1. Basic understandings of the product

## **1-1 Cautions for safety**

- All the safety and user manual should be read before the appliance is operated.
- The safety and operating instructions should be retained for future reference.
- Unplug this product from the wall outlet before clean. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- Do not use this equipment near wet place.
- This product should be operated only from the type of power sources indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. For equipment intended to operate from battery power, or other source, refer to the user manual.
- Do not use any damaged power cords or plugs, or loosed outlets, this may cause electrical shock or fire.
- Do not put heavy articles such as other equipments on this product.
- Keep it away from liquid, inflammable substances.

**If you experience any malfunctioning of product or have any question regard to operation of the product, please contact our customer service center.**

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## **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 Multiplex, 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.

## ***1-2 Package Includes***

Each HDMI Distributor package includes the following items;

- HD-D105 / HD-D205 HDMI Distributor Unit x 1
- 12V, 3A Power Adapter x 1
- User's Manual x 1

### 1-3 Description, General Specification

Digital Extender HD-D105 and HD-D205, 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-D105	HD-D205
Input Signal	HDMI (TMDS )Single Link, 1 port	HDMI (TMDS )Single Link, 2 port
Output Signal	HDMI (TMDS )Single Link, 5 port	HDMI (TMDS )Single Link, 5 port
Resolution	640x480, 800x600, 1024x576 1280x720, 1920x1080 480i/p , 720i/p , 1080i/p	640x480, 800x600, 1024x576 1280x720, 1920x1080 480i/p , 720i/p , 1080i/p
Receptacle	HDMI 19 Pin Female	HDMI 19 Pin Female
HDCP Support	OK	OK
Power Consumption	Max 6 W 12V Power Adapter(Included)	Max 6 W 12V Power Adapter(Included)
Dimension	310X140X30 mm	310X140X30 mm
Weight	0.90Kg	0.90Kg

## ***1-4 Environmental and Reliability Specifications***

### **1, Operating Conditions**

Temperature: 10°C ~ 40°C

Humidity: 10% ~ 80%, non-condensing

Altitude: Maximum 3,000m

### **2, Transportation Conditions**

Temperature: -25°C ~ 60°C

Humidity: 5% ~ 95%, non-condensing

Altitude: Maximum 15,000m

### **3, Storage Conditions**

Temperature: -20°C ~ 45°C

Humidity: 5% ~ 95%, non-condensing

Altitude: Maximum 3,000m

### **4, Reliability Specifications**

MTBF: More than 50,000 hours at 90% confidence level reliability specification and items.

## 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 & 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 stack of connection when using HD-D105/HD-D205, 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 (Total length of interconnection from source to display equipments). In most cases, the overall distance that the HDMI signal will need the travel is over 33 feet. 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 no sound or blinking effects) With this amplification feature, your video display can be extended up to 2300ft using our fiber optical HDMI cables.

### **HDCP(High-bandwidth Digital Content Protection) Compliant**

Our HD-D105/HD-205 Distributors are fully HDCP compliant. Many video sources such as DVD players and Set-Top Box are HDCP encrypted. For this video sources to be displayed correctly, must be HDCP compliant devices(e.g., HDTV, HDMI switcher, Receiver, Distributor, Repeater) are required.

### 3 Video Connection

Step 1: Ensure the digital video/audio source and display is turned off.

Step 2: Connect the digital HDMI source (DVD, Set-top box, Computer) to the input port of the HD-D105 / HD-D205.

Step 3: Connect the HD-D-105 / HD-D205's output port to display (HDTV, Monitor, Projector) of HDMI input port

Step 4: Power up the display.

Step 5: Power up the HD-D105/HD-D205.

Step 6: Power up the HDMI source equipment.

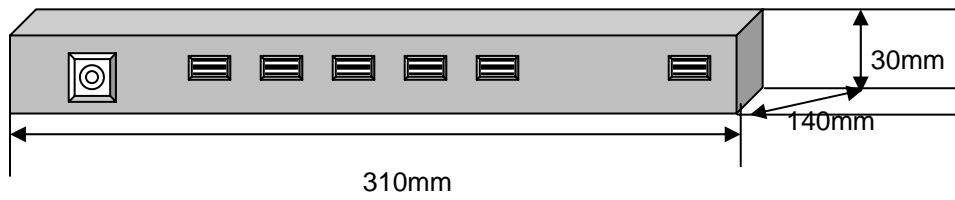
Check the LED power indicator on the HDMI distributor.

## 4 Mechanical Specification

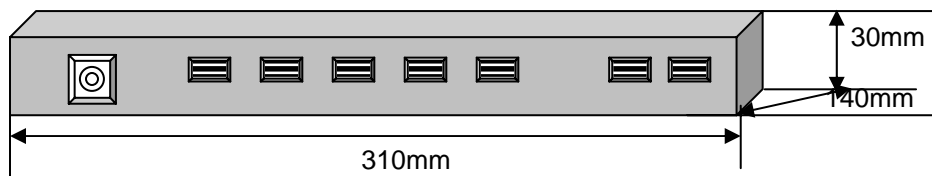
### Dimensions

HD-D105 / HD-D205: 310 mm X 140 mm X 30 mm

#### HD-D105



#### HD-D205



## 5 Technical Specification

Frequency bandwidth: 1.65Gbps

Supporting Resolution: Up to 1920 x 1080

Up to HDTV 1080/P

Inputs: HDMI Type A receptacle (single link) 1 port (HD-D105), 2 port (HD-D205)

Output: HDMI Type A receptacle single link) 5 port

Power supply: Internal Power and External 12V, 3A Power Adapter

HDCP(High-band width Digital Content Protection) Compliant.

### 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 warrants this HDMI Distributor 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 or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, RTcomUSA shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part 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.

Replacement products may be new or reconditioned.

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

RTcomUSA shall not be responsible for any software, firmware, information, stored on, or integrated with any products returned to RTcomUSA for repair under warranty or not.

### **Warranty Limitation and Exclusion**

RTcomUSA 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 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.

Revision 2

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