



## Operating Instructions

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Thanks for purchasing our product.

Please be sure to read this instruction manual carefully before using our product.





# Introduction

Grandbeing's SP0104-U01 is a four-way HDMI splitter. It distributes one input HDMI signal to four identical UTP outputs. These four outputs are synchronized.

SP0104-U01 has the ability of pre-emphasis and equalization. Series connection of SP0104-U01 achieves long distance transmission of HDMI signal of more than 50 meters.

SP0104-U01 offers solutions for digital entertainment center, HDTV retail and show site, HDTV, STB, DVD and Projector factory, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

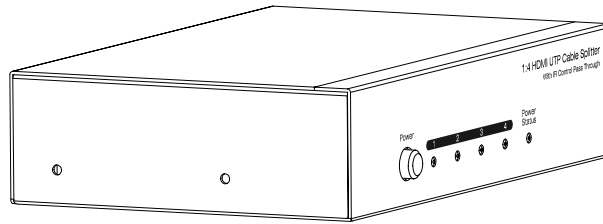
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# HDMI Splitter

## ■ Product Overview ( Model Number: SP0104-U01 )



### Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

### ■ Features

- Easy to Use: Install in seconds, simple operation.
- Distribution: Four identical UTP outputs.
- HDMI V1.3B.

### Notice

Grandbeing Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

 **Warning**

**To reduce the risk of fire, electric shock or product damage:**



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.




5. Do not place sources of naked flames, such as lighted candles, on the unit.



10. Refer all servicing to qualified service personnel.

## ■ Package Contents

- ① Main unit. P/N\_SP0104-U01.
- ② 5VDC Power Supply.P/N\_VDC0503.
- ③ Operating Instructions.P/N\_INSSP0104-U01.
- ④ IR TX UNIT.

 **NOTE:** Cables are optional

## ■ Connections and Operations

- 1) Connect the HDMI input sources into SP0104-U01(Input cables are optional).
- 2) Connect two CAT-5E/6E cables to both the STP/UTP outputs of SP0104-U01 and inputs of STP/UTP receiver (such as EX0101-U51/53 etc). Please pay attention to the sequence of the two cables, CAT5e-1->CAT5e1, CAT5e-2->CAT5e2. (The cable termination must follow the standard of EIA/TIA 568B, if Single UTP mode, just connect CAT5E-2).
- 3) Connect the HDMI output (such as HD-LCD/HD-DLP) into the STP/UTP receiver.
- 4) Connect the IR RX receiving cable into STP/UTP receiver IR RX and connect The IR TX cable into SP0104-U01 IR emitter.
- 5) Insert the DC side of 5v power supply into SP0104-U01 and then connect the AC side of the power supply into the wall outlet.
- 6) Turn on the power.

 **Attention:** DIP Switch EDID setting index

Position1	Position2	Position3	Function
0	0	0	1080P stereo (Using Embedded EDID) (note1)
0	0	1	1080P 5.1 (Using Embedded EDID) (note2)
0	1	0	Edid auto mix, mix result is compatible with all HDMI sinks (note3)
0	1	1	copy the first detected HDMI output's edid to the input port (note4)
1	0	0	LC mode, 1080P stereo (Using Embedded EDID) (note5)
1	0	1	LC mode, Edid auto mix, mix result is compatible with all HDMI sinks (note6)
1	1	0	LC mode, copy the first detected HDMI output's edid to the input port (note7)
1	1	1	Fix single UTP output (note8)

**Note1:** The matrix will use the embedded 1080P-stereo EDID when the DIP switch is in this mode. The EDID will be 1080P video and stereo audio

**Note2:** The matrix will use the embedded 1080P-5.1 EDID when the DIP switch is in this mode. The EDID will be 1080P video and 5.1 audio

**Note3:** The matrix will mix the EDID data of all HDMI sinks. And forward this mixed EDID to the HDMI source device. The thought of EDID mixing is to enable all the connected sink device can have video and audio they can output. For example, One TV is 1080P, stereo, another is 1080i, 5.1 audio. The mixed EDID will be 1080i, stereo audio

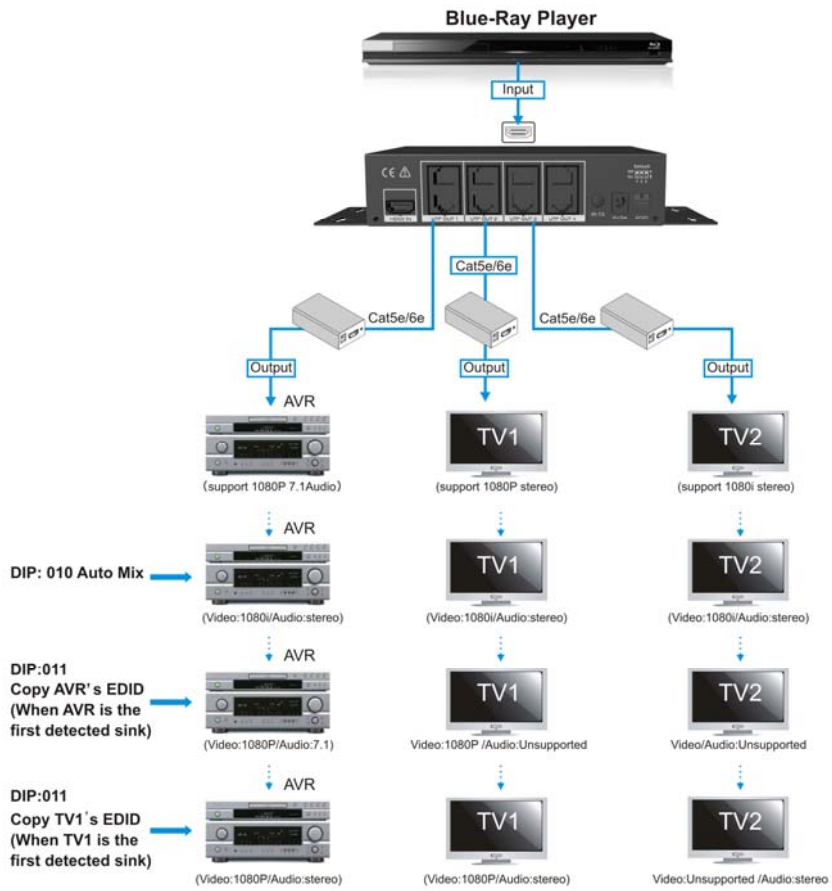
**Note4:** Copy the EDID data to the input port. It will copy the EDID data from the first detected output port

**Note5:** Please refer to Note1. The only difference is that if video appears noise or interference when the long HDMI/UTP cable is used or the quality of HDMI/UTP cable is not so good, use this mode.

**Note6:** Please refer to Note 3. The only difference is that if video appears noise or interference when the long HDMI/UTP cable is used or the quality of HDMI/UTP cable is not so good, use this mode

**Note7:** Please refer to Note 4. The only difference is that if video appears noise or interference when the long HDMI/UTP cable is used or the quality of HDMI/UTP cable is not so good, use this mode

**Note8:** Fix single UTP output, use the embedded 1080P-stereo EDID



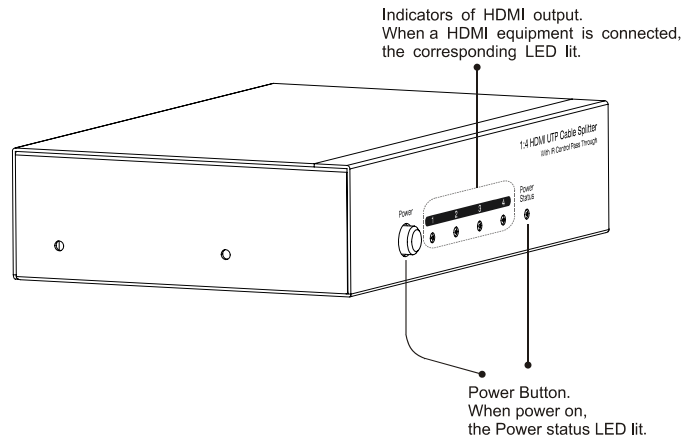
**Attention:** Insert / Extract cables gently.

## ■ Specifications

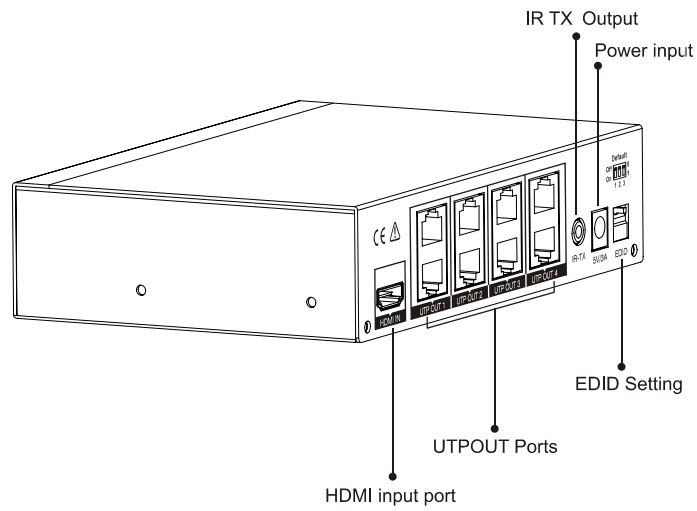
Operating Temperature Range	-5 to +35°C (-41 to +95°F)
Operating Humidity Range	5 to 90% RH ( no condensation )
Video Amplifier Bandwidth	140mHz
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Video Format Supported	VGA: 640x480, 800x600, 1024x768, 1280x1024 DTV/HDTV: 480i/576i/480P/576P/720P/1080i/1080P 3D video support
HDMI Output	HDMI 1.3 video and audio (support DTS-HD)
Maximum Transmission Distance	> 50m ( If needed, HDMI extender is optional )
Power Consumption	8 Watts (max.)
Power Supply	5VDC
Dimensions	175mmL x 115mmW x 40mmH
Mass	0.4 Kgs

## ■ Panel Descriptions

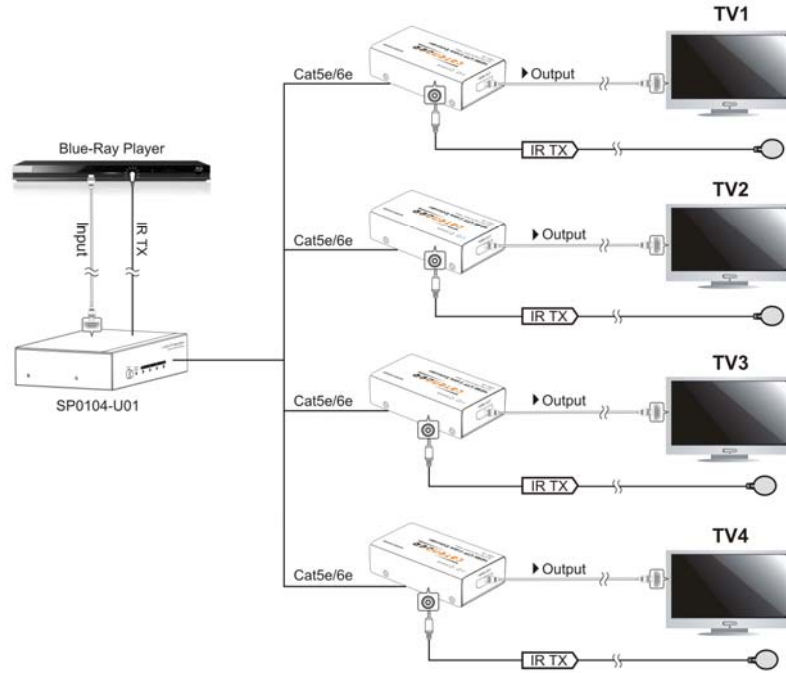
### Front Panel



### Back Panel



## ■ Typical Application



## ■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

## ■ Product Service

### ● Provided Service

- 1) **Damage Requiring service:** The unit should be serviced by qualified service personnel if:
  - The DC power supply cord or AC adaptor has been damaged;

- Objects or liquids have gotten into the unit;
  - The unit has been exposed to rain;
  - The unit does not operate normally or exhibits a marked change in performance;
  - The unit has been dropped or the cabinet damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) **Replacement parts:** When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) **Safety check:** After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.

#### • **Mail-In Service**

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

#### • **Warranty**

If your product does not work properly because of a defect in materials or workmanship, Grandbeing Company (referred to as "the warrantor") will, for the length of the period indicated as below, **(Parts (1) Year, Labor(90) Days)** which starts with the date of original purchase ("Limited Warranty

period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” Limited Warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

#### ● **Warranty Limits And Exclusions**

- 1) **This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage.** The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.
  
- 2) **There are no express warranties except as listed under “limited warranty coverage”. The warrantor is not liable for incidental or consequential damages resulting from the use of this product, or arising out of any breach of this warranty.** (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items

listed are not exclusive, but are for illustration only.)

- 3) **Parts and service, which are not covered by this limited warranty, are your responsibility.**





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