

Grandbeing®

HDMI Matrix (Router Type)

Model No. **MX0404-313** (P/N of this Instructions is INSMX0404-313)
 Instruction update date (version): 2010/02/26



Features

- Easy to use: install in seconds, no need for setting.
- Allows up to four HDMI audio/video devices to be independently switched to four HDMI monitors, HDTVs, or projectors.
- The four outputs could show the same or different source simultaneously no matter the source is HDCP or not.
- The four outputs all include two dual RJ-45 connectors. They can output simultaneously.
- Support high definition resolutions 1080p, 1080i, 720p and other standard video formats.
- Each port supports HDMI or DVI inputs.
- With extra infrared receiver extension.
- Four switching modes: panel buttons, local IR, IR call back from remote rooms and RS232.
- IR emitter for IR call back function to control the HDMI source from remote rooms.
- HDCP compliant.

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.

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.
- 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.
- 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.
- 4) DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.
- 5) DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- 6) CLEAN THIS APPARATUS ONLY WITH DRY CLOTH.
- 7) UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- 8) PROTECT THE POWER CORD FROM BEING WALKED ON OR PINCHED PARTICULARLY AT PLUGS.
- 9) ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.
- 10) REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

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INTRODUCTION

Grandbeing's MX0404-313 is a 4-by-4 DVI/HDMI true matrix. It allows any source (Blue-Ray player, HD DVD player, satellite receiver, game system, etc.) to be shown on the any of the four displays simultaneously, no matter the source is HDCP or not. Extra infrared receiver extension, IR emitter and RS232 port are supplied for remote control.

MX0404-313 has the ability of equalization and amplification to ensure HDMI signal's transmission through long cable without quality loss.

MX0404-313 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.

PACKAGE CONTENTS

1. Main unit. P/N_MX0404-313.
2. 5VDC power supply.P/N_VDC0504
3. 1x remote.
4. 1x IR extension cable (IR RX).
5. 4x IR_TX (IR emitter cable).
6. Operating instructions. P/N_INS MX0404-313.

***PART NUMBER (Abbreviation as P/N).**

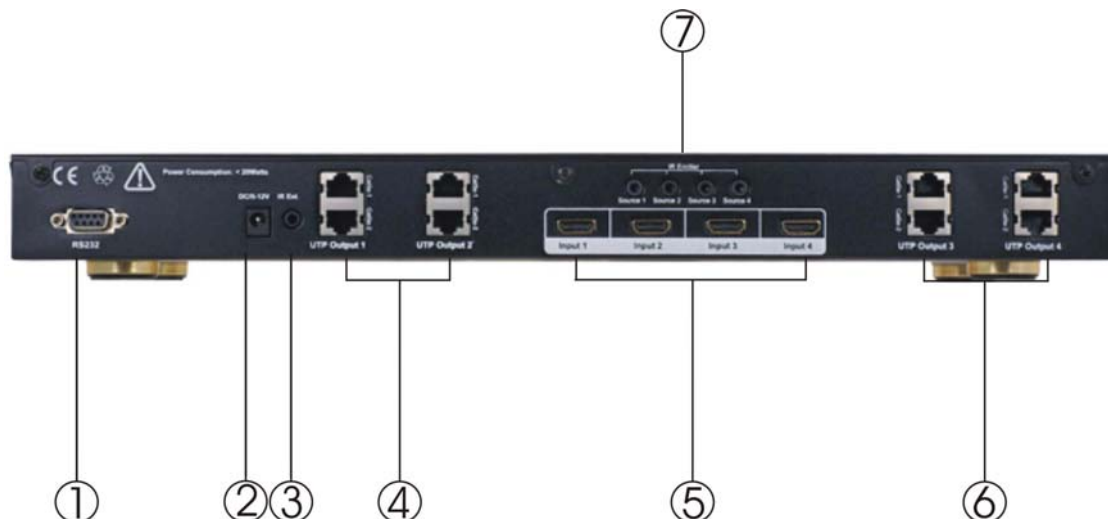
PANEL DESCRIPTIONS

Front panel



1. Output selector and indicator of input for output port 1 to 4.
2. IR window.
3. Key lock button.
4. Indicator of locking status, when the output selection buttons are locked, LED inside lit.
5. Power switch.

Rear panel



1. RS232 port.
2. Power input.
3. IR extension.
4. Output 1 and 2 with CAT5E.
5. Input ports 1 to 4 with corresponding IR emitter.
6. Output 3 and 4 with CAT5E.

7. IR emitter

Note: RS232 port are for matrix control.

CONNECT AND OPERATION

- 1) Connect the HDMI input sources (such as HD-DVD, PS3, STB etc) into MX0404-313.
- 2) Connect the UTP outputs (such as HD-LCD, HD-DLP) into MX0404-313.
- 3) Power on the input source you want to show. (Keep the unused input power off, otherwise it may interfere the normal display.)
- 4) Connect the power supply into MX0404-313 and turn on the display you want to watch.
- 5) Use remote or push the button to choose input source. Extra infrared receiver extension, IR emitter and RS232 port are supplied for remote control.
- 6) **IR calls back from remote rooms to control the HDMI Matrix function.**
Enable the function: press the output2 selection button and the key lock button at the same time for about 3 seconds. After all the output1 LEDs and the output2 LEDs flash once, the function is enabled.
Disable the function: press the output2 selection button and the key lock button at the same time for about 3 seconds. After all the output1 LEDs and the output2 LEDs flash twice, the function is disabled.
- 7) SOURCE-SINK AUTOFIT Function
 This function applies to the situation when the source's HDMI version exceeds the sink's HDMI version. (This function can be used to fix the deepcolor, 1080P, 1080i, 2ch audio, multi-channel audio issue.)
 For example, when the TV is HDMI 1.2 version and PS3 source is HDMI 1.3 version, it will output HDMI 1.2 version.
 (1) Under default mode, this machine will output 1.2 version HDMI signal (1080P and stereo audio).
 (2) Under button mode
A、 When the source is HDMI1.3, (e.g., HDMI output from PS3), OUTPUT1 to 4 both support HDMI1.3 displays, meanwhile source device is not connected to the input port, press "selector of OUTPUT1" and "lock key" simultaneously, the machine will output HDMI1.3 signals.

B、 When the source is HDMI1.3, (e.g., the HDMI output from PS3), OUTPUT 1 to 4 are connected to the displays that can only support HDMI 1.2 MAX, , meanwhile the input port should not be connected, press "selector of OUTPUT1" and "lock key" simultaneously (no matter whether HDMI OUTPUT port is connected to the display that supports HDMI 1.3 or not), it will output HDMI 1.2 signals.
- 8) Instruction on TX IR.
 The sequence of "TX IR1, TX IR2, TX IR3, TX IR4" one-to-one correspond with "HDMI INPUT1, HDMI INPUT2, HDMI INPUT3, HDMI INPUT4". When an

output chooses certain input, the call-back IR signal of RJ45 on this output port will choose the corresponding "TX IR" port to send the signal out.

For example, OUTPUT1 chooses INPUT3, then the call-back IR signal of RJ45 on OUTPUT1 will choose "TX IR3" to send the signal out.

Note: The method to reset the machine to default EDID setting: Disconnect the inputs and outputs. Please press "selector of OUTPUT1" and "lock key" Simultaneously for at least 3 seconds, and EDID of all the four input ports will be reset to the default setting. The audio setting of the default EDID is stereo. It is suitable for TV sets.

Attention:

Please insert or extract cables gently.

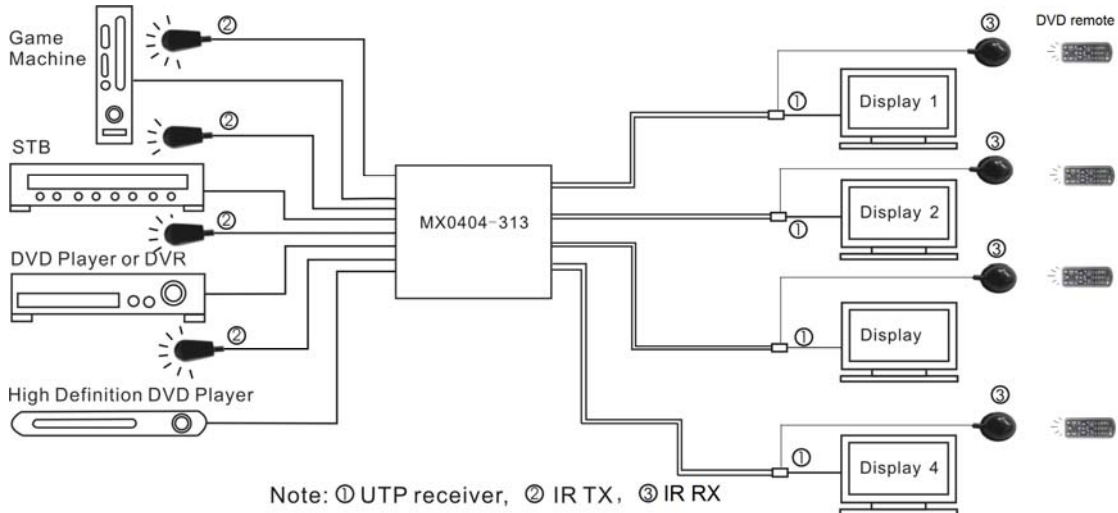
SPECIFICATIONS

Operating Temperature Range	-5 to +35°C (-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Signaling Rate	2.25Gbit/s
Video Format Supported	DTV/HDTV:1080P/1080i/720P/576P/480P/576i/480i
Audio Format Supported	DTS-HD、Dolby trueHD
Output Video	HDMI1.2 and HDMI1.3 (except 1080P 36bit. See note1)
UTP cable Transmission Distance	< 30m (use Grandbeing UTP receiver, if need longer distance, Grandbeing UTP repeater should be used.)
Power Consumption	12watts (Max)
Dimensions	440mmLx202mmWx42mmH /17.3"Lx7.9"Wx1.7"H
Mass (Main Unit)	2kg/4.4lb

Note1: 1080P 36bit is too high bit rate for Cat5e/Cat6 cable. It's length will be only a few meters.

***Note2: Specifications are subject to change without notice. Mass and dimensions are approximate.**

TYPICAL APPLICATION



Note: UTP receiver and the IR RX are optional, not included in the normal package content.

MAINTENANCE

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

PRODUCT SERVICE

- 1) **Damage requiring service:** The unit should be serviced by qualified service personnel if:
 - (a) The DC power supply cord or AC adaptor has been damaged;
 - (b) Objects or liquids have gotten into the unit;
 - (c) The unit has been exposed to rain;
 - (d) The unit does not operate normally or exhibits a marked change in performance;
 - (e) The unit has been dropped or the cabinet has been 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 servicer 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 servicer to perform safety checks to confirm that the unit is in proper working condition.

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.

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 day time 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.

LIMITED 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 Servicer, 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 servicer, 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.



Thank you for your purchase.

We appreciate your business. Please contact us with your question and comments.

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