

HV-211

HDMI 2x1 Multi-Viewer

User Manual

(31st Mar. 2016)

1. Introduction

The HV-211 is a high performance 2 by 1 Multi-Viewer with PIP (Picture-In-Picture) and POP (Picture-Out-Picture) switcher. It supports two HDMI input sources to be displayed on one screen with 4 multi-view modes.

The product can be controlled via the front panel button, IR, or RS232 control.

2. Features

- Compliant with HDMI 1.3a, HDCP 1.2;
- Supports multiplexed HDMI 2-input and 1-output with 4 display modes;
- Supports up to 1080p High Definition resolution;
- Support scaling up/down function;
- Support multi output resolution;
- Support digital audio format LPCM/AC3/DTS
- Support front panel button, IR, RS232 control;

3. Package Contents

- HDMI 2x1 Multi-Viewer 1 pc
- 5V/1A DC power adaptor 1 pc
- Remote Control 1 pc
- Mounting ears 2 pcs
- Operation Manual 1 pc

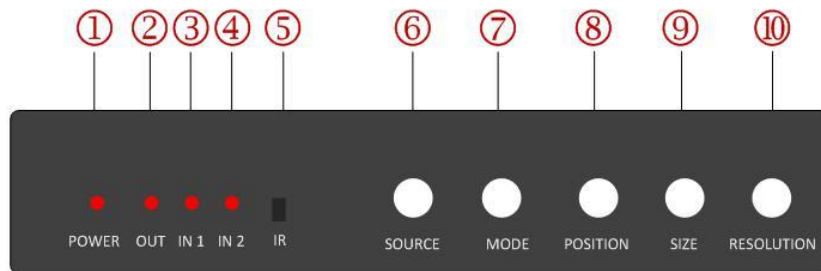
4. Specification

- Video Bandwidth 225MHz (6.75Gbps)
- Input Ports 2 × HDMI
- Output Ports 1 × HDMI
- Audio output PCM2, 5.1, 7.1CH, Dolby 5.1, DTS5.1
- Input Resolution 480i60Hz, 480p60Hz, 576i50Hz, 576p50Hz, 720p50/60Hz, 1080i50/60Hz, 1080p24/30/50/60Hz, 800x600@60, 1024x768@60, 1280x720@60, 1920x1080@60;
- Output Resolution 1080p, 1080i, 720p, 1024x768, 1360x768
- ESD Protection Human Body model: ±8 kV (air-gap discharge)
±4 kV (contact discharge)

- Power Supply 5V/1A DC (US/EU standards, CE/FCC/UL certified)
- Dimensions 70mm(W) X 140mm(D) X 25mm(H)
- Weight 300 g
- Chassis Material Metal
- Silkscreen Color Black
- Operating Temperature 0 °C ~ 40 °C/32 °F~104 °F
- Storage Temperature -20 °C ~ 60 °C/-4 °F ~140 °F
- Relative Humidity 20~90 % RH (non-condensing)
- Power Consumption 5 W

5. Operation and Functions

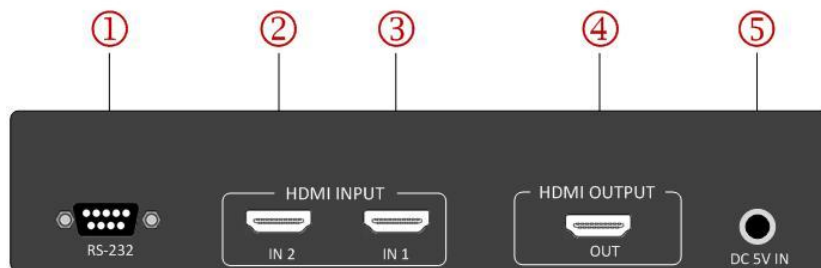
5.1 Front panel



- 1. POWER LED:** This red LED is ON when the device is powered on.
- 2. OUTPUT LED:** This red LED is ON when the screen is attached in HDMI-OUT.
- 3. IN1 LED:** This red LED is ON when the HDMI IN1 is selected.
- 4. IN2 LED:** This red LED is ON when the HDMI IN2 is selected.
- 5. IR:** Remote Control signal window.
- 6. SOURCE:** Press this button to select the input source.
- 7. MODE:** Press this button to select display mode. (※See the Display Mode Description section).
- 8. POSITION:** Press this button to select the position of sub image during PIP mode.
- 9. SIZE:** Press this button to select the size of sub image during PIP mode.
- 10. RESOLUTION:** Press this button to select the output resolution.

NO.	RESOLUTION
1	1080P, Main image audio
2	720P, Main image audio
3	1080I, Main image audio
4	1024x768, Main image audio
5	1360x768, Main image audio

5.2 Rear panel



1. **RS232:** Connects to computer via RS-232 cable for the software control.
2. **HDMI IN2:** Connects to HDMI source 2.
3. **HDMI IN1:** Connects to HDMI source 1.
4. **HDMI OUTPUT:** Connects to HDMI screen.
5. **DC 5V IN:** Plug the 5V DC power supply here.

1. Installation and Operation

1. Connect HDMI sources to the HV-211's HDMI IN1 and IN2.
2. Connect the HV-211's HDMI OUT to TV, monitor, or projector.
3. Power ON HDMI sources, then HV-211 and then TV or monitor or projector.
4. Press [RESOLUTION] button to select the resolution that fit with the screen.
5. Press [Mode] button to switch Full, PIP, POP mode.
6. Press [SOURCE] button to select the input source.
7. Press [POSITION] button to select the position for the sub-image in PIP mode.
8. Press [SIZE] button to select the size for the sub-image in PIP mode.

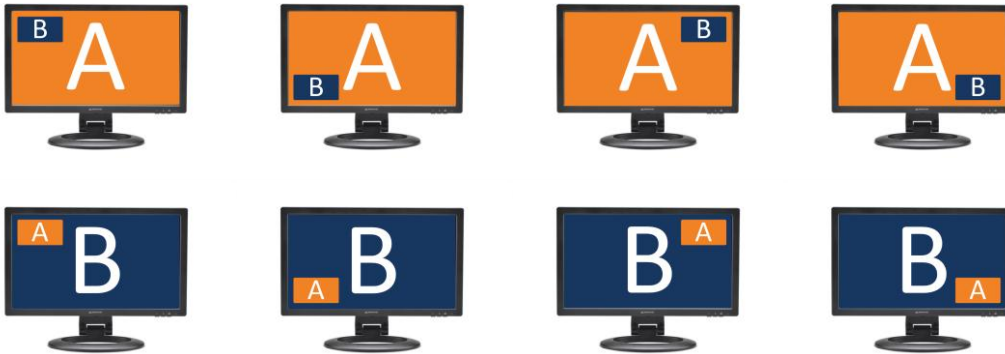
2. Display Mode Description

1. Mode 1: Single Source in Full screen.
2. Mode 2: Two Sources in PIP with one as Background and another one on Top.
3. Mode 3: Two Sources in POP with each in 1/2 screen scaled up.
4. Mode 4: Two Sources in POP with each in 1/2 screen same ratio.

Mode 1



Mode 2



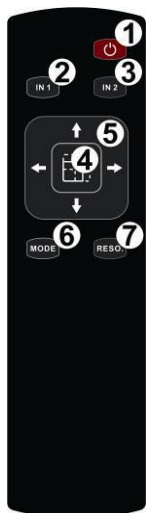
Mode 3



Mode 4



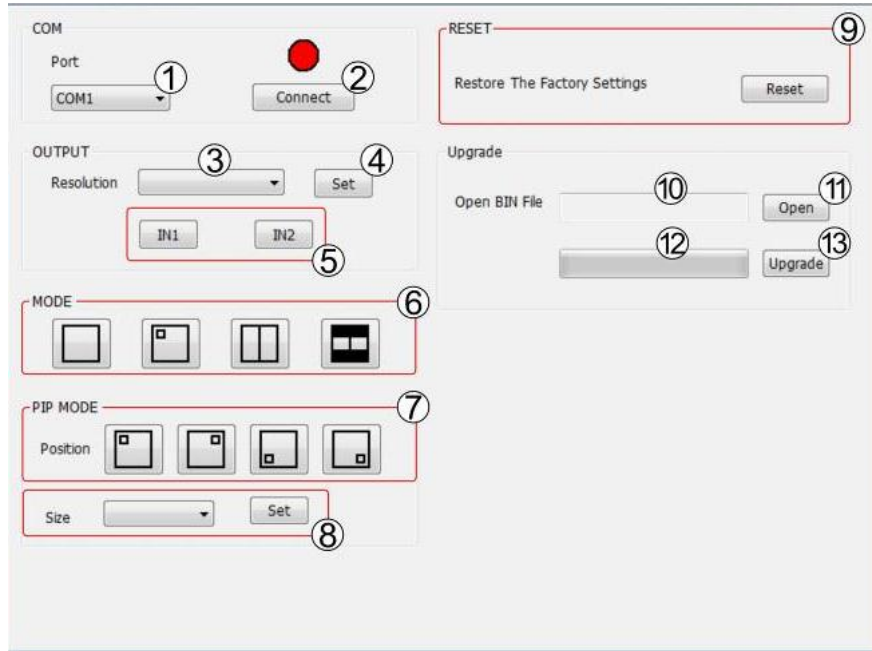
3. IR Remote Control



1. **POWER:** Press this button to power on the matrix or set it to standby mode.
2. **IN1:** Press this button to select input 1 as main image, and the IN1 LED will indicate.
3. **IN2:** Press this button to select input 2 as main image, and the IN2 LED will indicate.
4. **SIZE:** Press the button to select the size of sub image when in PIP mode.
5. **POSITION:** Press these buttons to select the position of sub image when in PIP mode.
6. **MODE:** Press the button to select display mode.
7. **RESO:** Press the button to select the output resolution.

4. PC Control

1. Connect PC COM port to the HV-211's RS-232 port by using a RS232 cable.
2. Power ON the HV-211.
3. Run the HV-211.exe as the below screen display:



1. Select RS232 COM port.
2. Click to Connect/Disconnect to HV-211.
3. Select output resolution.
4. Click set to confirm.
5. Click IN1 or IN2 to select the input source as main image.
6. Click the MODE Icon to select output mode.
7. Click the Position Icon to select PIP position.
8. Select PIP size and click set to confirm.
9. Click to reset to the factory settings.
10. The firmware file path.
11. Click to open BIN file (file extension is “.bin”)
12. Display the progress of the firmware upgrade.
13. Click to upgrade the HV-211 firmware.

5. RS-232 Control

Please refer to the HV-211 RS232 Command List Excel file for the supported RS-232 commands.

6. Connection Diagram

