

Video-Wall Controller

Expandable Video-Wall Controller
with HDMI, VGA, CVBS, USB input sources

MODEL: BVW140



Overview

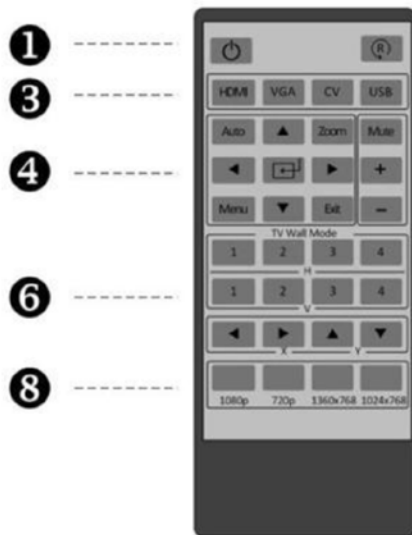
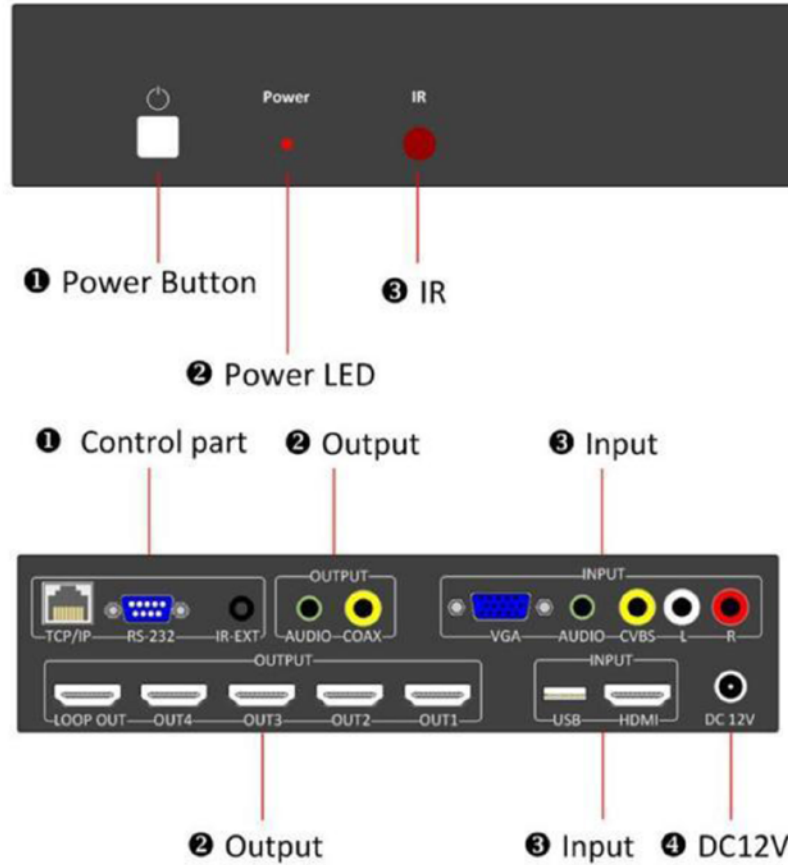
We are now living in an era where there's a need to visualize data and other forms of information. Having the right display system is important to accomplish this task. With the use of a video wall processor, we can do this effectively as it enables to display multiple sources across video walls, projector screens, or a display wall. Such technology is capable of integrating any type of video and data sources on any display wall configuration.

iTech Company's BVW140 Video Wall Controller offers a highly expandable and flexible solution for video display walls. It is an ideal solution for entertainment and digital signage applications such as clubs, trade shows, control centers, building lobbies, and other similar venues. It supports multiple input video sources such as HDMI, VGA, Composite Video (PAL/NTSC) as well as USB disk. One BVW140 unit has 5x HDMI output ports that can support 1x2, 1x3, 1x4 (Landscape and Portrait), 2x1, 3x1, 4x1, 2x2 video wall configuration. Meanwhile, two BVW140 units can be cascaded for 9x HDMI output ports to support 2x3, 3x2, 2x4, 4x2, and 3x3 video wall. It is equipped with a versatile bezel compensation ability to accommodate any display bezel width. All the operations and controls on this unit can be done through IR, Ethernet and RS-232.

Features

- HDMI 1.3a and DVI 1.0 compliant
- Supports various input video sources such as HDMI, VGA, and CVBS; and USB movie, picture, and music playback
- Supports 5x HDMI outputs for one local full image output + 2x2 Video-Wall
- Advanced video De-interlace to enhance 480i and 576i SD video inputs
- Two units can be cascaded into 9x HDMI outputs for 3x3 Video-Wall mode
- Supports adjustable bezel correction to accommodate any display bezel width
- Supports IR, Ethernet and RS232 controls

FRONT / BACK View and IR Remote Control



- ① Press this button to power on the BVW140 or set it to standby mode.
- ② Press this button for rotate 90° screen, only for 1x2, 1x3, 1x4 modes.
- ③ Input Sources select button.
- ④ **AUTO** button for VGA input auto adjustment;
- ⑤ **ZOOM** button for all input sources zoom in and zoom out. The other buttons for USB input source control function.
- ⑤ Buttons for Audio output volume adjustment function, (include HDMI, Coaxial and analog audio output).

⑥ Video-Wall mode selection: such as 2x2 mode, press “H” towards “2”, then press “V” towards “2”.

⑦ Bezel correction: set the bezel size of the images in zoom-in model, to make the whole image looks coherently.

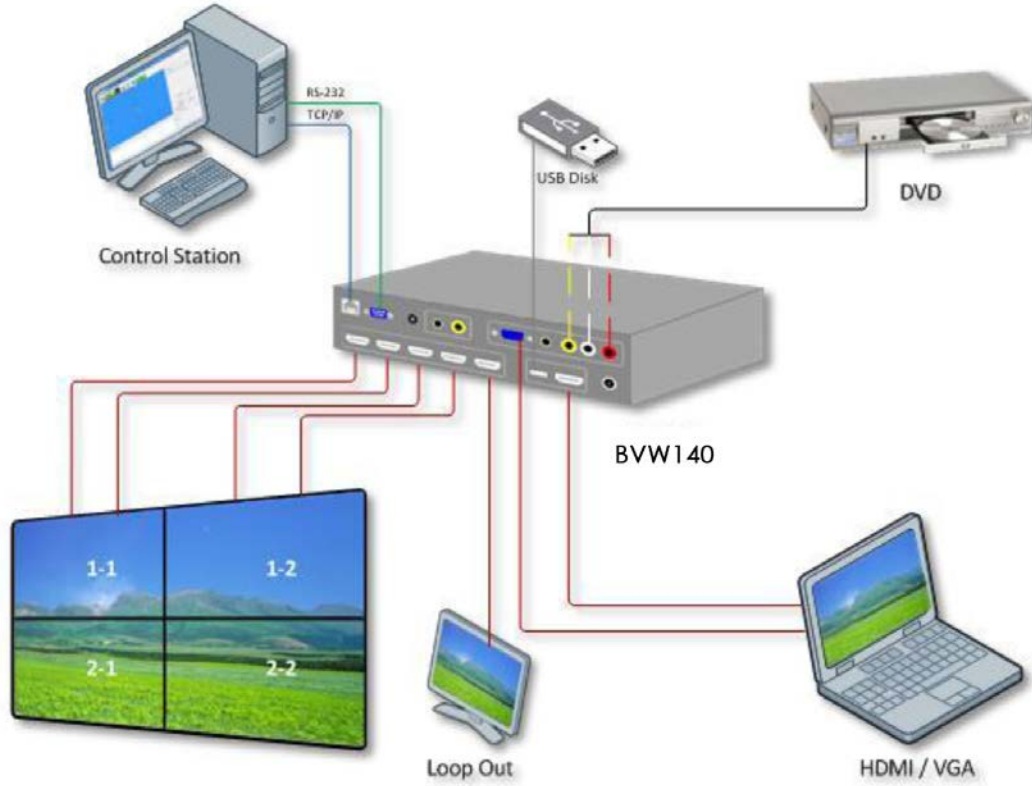
⑧ Output resolution selection.

SPECIFICATIONS:

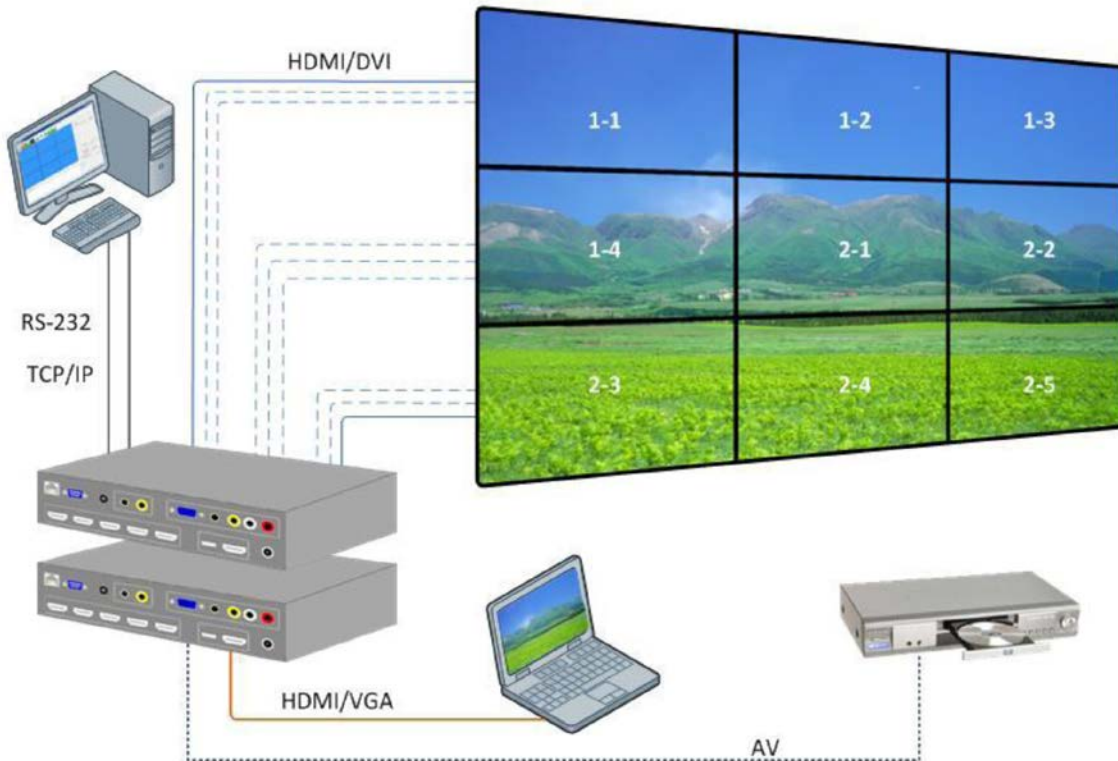
Model		BVW140
Connectors	HDMI In	1 (Female)
	VGA with Audio In	1 (DB-15 Female) + 1 (3.5mm Audio Jack)
	CVBS with Audio In	1 x RCA + 1 x L/R (RCA)
	USB In	1 (for Media files play)
	HDMI Out	5 (Female)
	Audio Out	1 x 3.5mm Stereo + 1 x Coaxial Out (5.1 Channels)
	IR Receiver	1
	IR Ext	1
	RS-232	1
	TCP/IP	1
Video Bandwidth		225MHz[6.75Gbps]
Input Resolution		<p>CVBS: PAL, NTSC, SECAM with stereo audio input.</p> <p>VGA: 640x480, 800x600, 1024x768, 1280x1024, 1280x720, 1360x768, 1440x900, 1680x1050, 1920x1080, all in 60Hz with stereo audio input.</p> <p>HDMI: 1080p@50/60Hz, 1080i@50/60Hz, 720p@50/60Hz, 576i/p,480i/p, 640x480, 800x600, 1024x768, 1280x1024, 1280x720, 1360x768, 1440x900, 1680x1050, 1920x1080, all in 60Hz.</p> <p>USB: MPEG, H.264, RM/RMVB movie decode, JPEG, BMP, PNG Picture, MPEG1/2, MP3</p>
Output Resolution		1024x768, 720p, 1360x768, 1080p
ESD Protection		Human Body model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Power Supply		DC 12V 2.5A (US/EU/UK, CE/FCC/UL certificated)
Power Consumption		7.5W
Environment	Operating Temp.	0~40°C
	Storage Temp.	-20~60°C
	Humidity	20~90% Non-condensing
Physical Properties	Housing	Metal (Black)
	Weight	1050 g
	Dimensions	250 (L) x 118 (W) x 32 (H) mm

DIAGRAM

One BVW140 (5 x HDMI outputs): Support 1x2, 1x3, 1x4, 2x1, 3x1, 4x1, 2x2:



Two BVW140 cascaded (9 x HDMI outputs): Support 2x3, 3x2, 2x4, 4x2, 3x3:



Installation and User's Manual

Package Contents

The BVW140 package consists of:

1 x BVW140 1x4 HDMI TV Wall 1 x

12V 2.5A Power supply

1 x IR Receiver cable

1 x TV Wall Remote

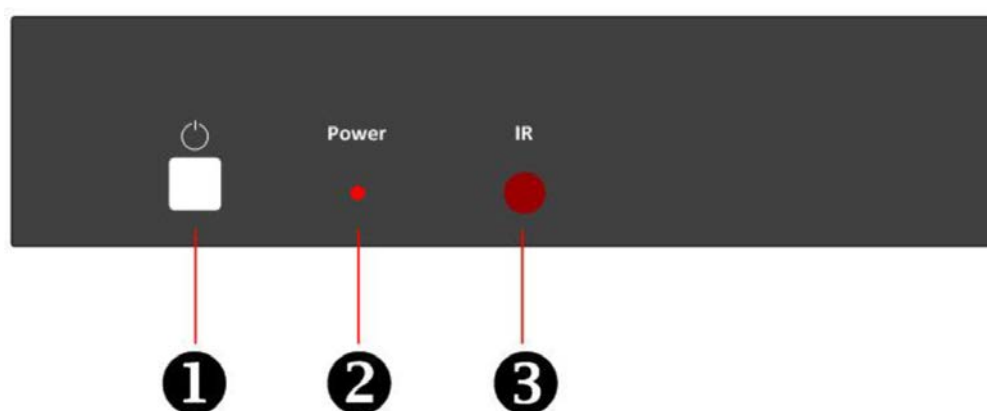
1 x RS232 Cable

1 x This Manual

Introduction

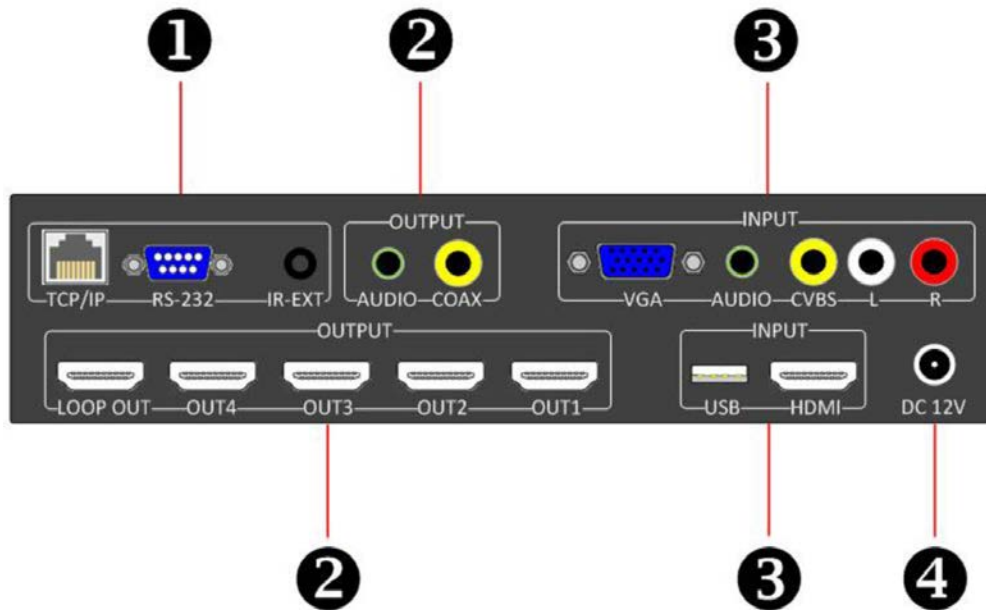
The BVW140 supports CVBS/VGA/HDMI/USB play input sources to be freely arranged on 4 displays. The embedded scaler converts signals from the input sources to match the native resolution of monitors, flat panel displays, projectors as well as user-selectable output settings up to 1920x1080. All the operation and control can be done through IR, Ethernet and RS-232. The HDMI TV Wall is widely used in KTV, hotels, bars, leisure centers, shopping malls, television stores, cinemas, products display, media advertising, building, education and training, Brand stores, airports, subway, etc.

Front Panel View



Connector	Description
1. Power Button	Power on/off switch.
2. Power LED	Shows green when power is on. Shows red when in standby mode.
3. IR	Remote control receiver.

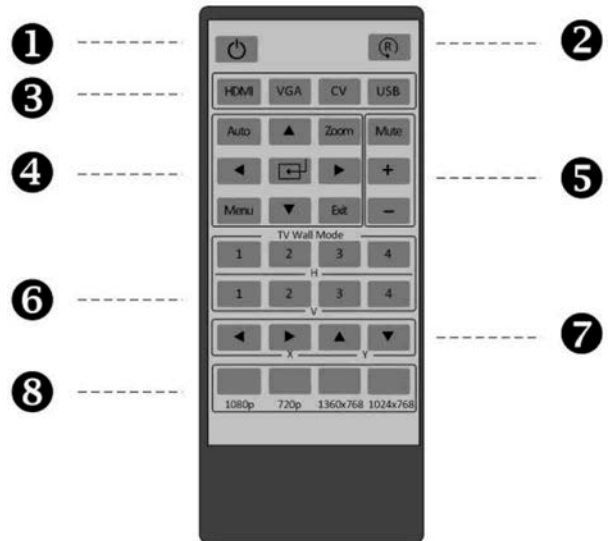
Rear Panel View



Connector	Description
1. Control Part	
TCP/IP	This port is the link for TCP/IP controls, connect to an active Ethernet link with an RJ45 terminated cable.
RS-232	Connect to a PC or control system with D-Sub 9-pin cable for the transmission of RS-232 commands
IR Ext	Connects to IR-Receiver.
2. Output	
HDMI Out	Connect with HDMI TV/displays for output image display. It is suggest that the connection sequence should be placed as diagram showed for TV wall set up. LOOP OUT is the nominated port for cascading the input signal.
Audio Out	The coax and audio out where you connect to the digital or analog audio amplifier .
3. Input	Connect with source equipment such as DVD/Blue-ray players, PC, Game console or USB disc devices to CVBS, VGA, HDMI, USB input port.
4. DC 12V In	Plug the 12V/2.5A DC power supply into the DC12V power in.

Remote Control

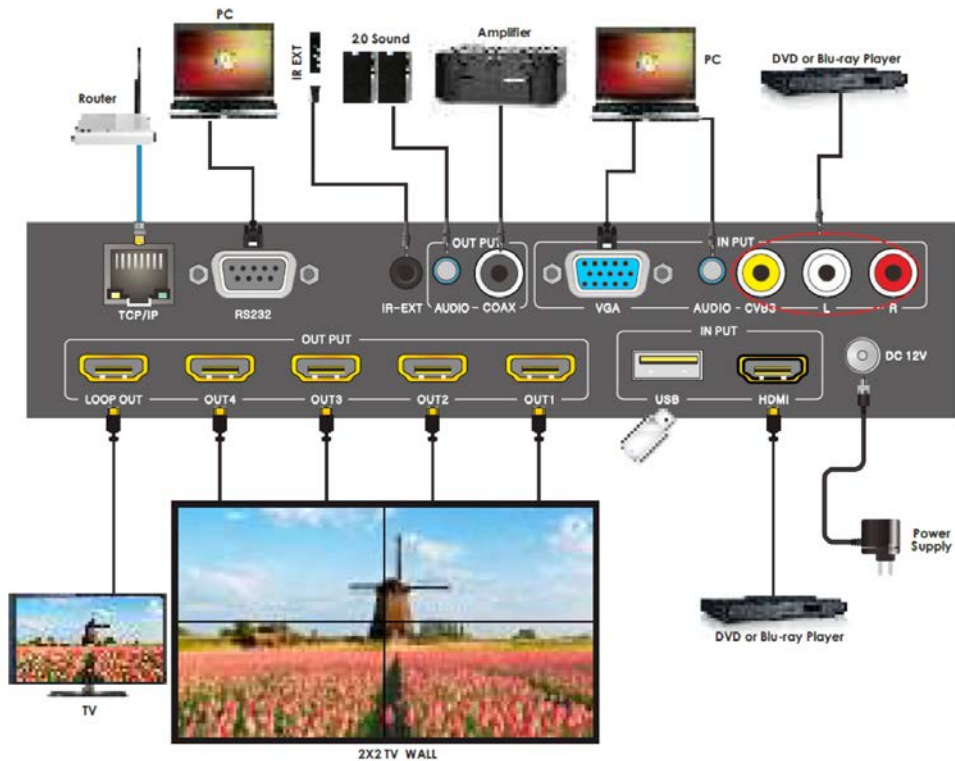
1. Press this button to power on the TV Wall or set it to standby mode.
2. Press this button for rotate 90° screen, only for 1x2, 1x3, 1x4 TV Wall mode.
3. Input Sources select button.
4. **AUTO** button for VGA input auto adjustment function; **ZOOM** button for all input sources zoom in and zoom out function. The else button for USB input source control function.



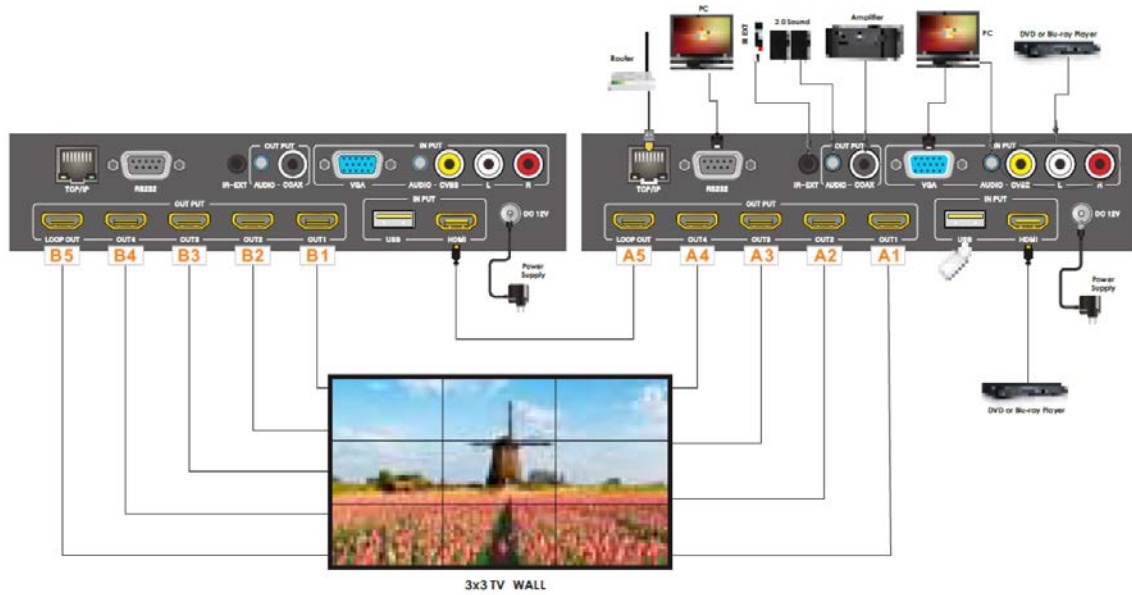
5. These buttons for Audio output volume adjustment function, (include HDMI, Coaxial and analog).
6. TV Wall mode selection: such as 2x2 TV Wall mode, press "H" towards "2", then press "V" towards "2".
7. TV Wall Picture Bezel correction adjust: the users can set the bezel size of the images in zoom-in model, to make the whole image looks coherently.
8. TV wall output resolution selection.

Connection and Installation

- 2x2 TV Wall



- 3x3 TV Wall



TV Wall connection sequence diagram

1x2 (H)	A1 A2
1x3 (H)	A1 A2 A3
1x4 (H)	A1 A2 A3 A4
1x2 (V)	A1 A2
1x3 (V)	A1 A2 A3
1x4 (V)	A1 A2 A3 A4

2x1	A1 A2
3x1	A1 A2 A3
4x1	A1 A2 A3 A4
2x2	A1 A2 A3 A4

Cascade 2

2x3	A1 A2 A3
	B1 B2 B3
3x2	A1 B1
	A2 B2
	A3 B3
2x4	A1 A2 A3 A4
	B1 B2 B3 B4

4x2	A1 B1
	A2 B2
	A3 B3
	A4 B4
3x3	A1 A2 A3
	A4 B1 B2
	B3 B4 B5

Specification

- Frequency Bandwidth: 225MHz [6.75Gbps]
- HDMI1.3a, DVI1.0 compliant
- Input Ports: 1x HDMI (Female type), 1xISB,
1xVGA,1xCVBS+L/R
- Out Ports: 5 x HDMI (Female type) ,1xCoaxial, 2xL/R
- Power Supply: DC 12V 2.5A (US/EU standards, CE/FCC/
UL certification)
- ESD Protection: ± 8kV (air-gap discharge) Human Body Model: ± 4kV
(contact discharge)
- Dimensions (mm): 250(W) X 118 (D) X 32(H)
- Weight: 1050g
- 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: 7.5W