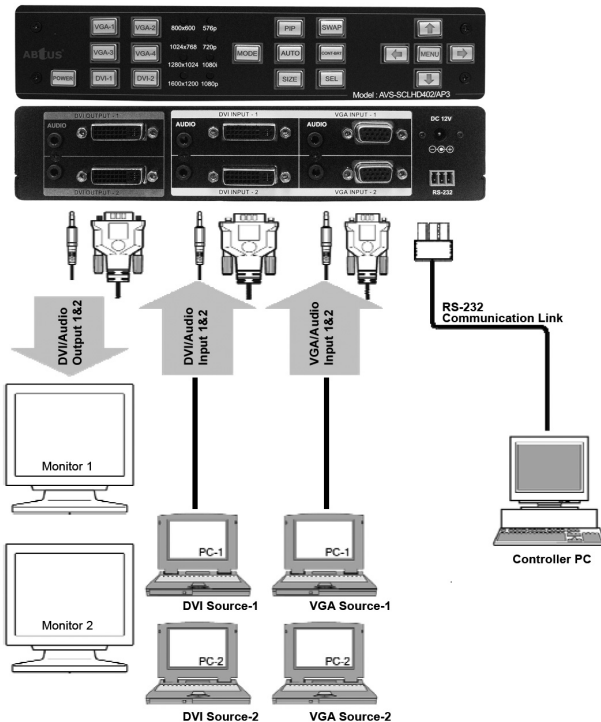


SPECIFICATIONS

TECHNICAL	SIGNAL TYPE	CONNECTION TYPE
Input	2 x VGA/Audio 2 x DVI-D digital video OR HDMI 1.3/Audio	2 x D-Sub 15pin / 3.5mm min jack 2 x DVI-I / 3.5mm min jack
Output	2 x DVI-I/Audio	2 x DVI-I / 3.5mm min jack
Control port	RS-232	3.8mm terminal block
Video Support	800x600, 1024x768, 1024x1024, 1280x960, 1280x1024, 1366x768, 1366x1024, 1600x1200	576p, 720p, 1080i, 1080p 60Hz
Audio Support	Stereo Audio	
PIP	Picture In Picture	Yes
POP	Picture And Picture	Yes
Power Supply	12V DC, 3 Amp	
Operating temperature	0~40 °C (32~104 °F)	
Storage temperature	-20~60 °C (-4~140 °F)	
Relative humidity	20~90% RH (no condensation)	
Mechanical		
Housing	Metal enclosure	
	Product	Package
Dimensions (L x W x H)	230 x 155 x 45 mm	360 x 300 x 60 mm
Weight	1150g	2030g
Package include		
	1 x Switcher	
	1 x AC DC Power Adaptor	
	1 x Quick User Guide	

* Specifications are subject to changes without notice.



Typical Applications

Any professional presentation system requiring multiple AV Inputs of all different type of Video standard and a standard output format with local and remote monitor.

- Schools (Lab, Hall etc.)
- Churches
- Corporate Applications (Function Room)
- Rental

ABTUS
SINGAPORE

Multimedia

Full HD Presentation Scaler Switcher

HD Presentation Scaler Switcher with DVI Out



Model: AVS-SCLHD402/AP3

PRODUCT DESCRIPTION

ABTUS AVS-SCLHD402/AP3 a Multi Media Presentation Full HD Scaler Switcher that provides high quality up or down scaling between standard computer and HDTV signals. Selectable inputs 2 x VGA/Audio OR 2 x YUV Component/Audio, YPbPr (Progressive Scan) Component/Audio (*with VGA break cable) as well as 2 x DVI-D or HDMI (*with gender changer) which then output with 2 x DVI/Audio.

Each incoming Video Signal/Audio gain and parameters can be adjusted independently. The high resolution DVI outputs are selectable as any computer resolution up to 1600x1200 or any HDTV resolution up to 1080p. All the functions can be controlled via the front panel Push Buttons, an On-Screen Display is also available to assist in all setup. The Motion compensation and a 3:2 Pull-down feature for NTSC greatly improve the image quality.

PRODUCT HIGHLIGHTS

- High quality up or down scaling between standard Computer and HDTV signals
- Logo Capturing (*base on VGA input)
- PIP/Swap (*Picture in Picture with size, position and Blending adjustment)
- POP/Swap (*Picture By Picture)
- Max resolution Computer 1600x1200 and HDTV 1080p
- Independence inputs Video/Audio gain and parameter adjustments
- Output includes: 2 x DVI-I/Audio

User Operation Guide

FRONT PANEL VIEW



Item	Description
1. Source selection	1.1 VGA-1
	1.2 VGA-2
	1.3 VGA-3
	1.4 VGA-4
2. Output Resolution LED Indicator	800x600, 1024x768, 1024x1024, 1280x960, 1280x1024, 1366x768, 1366x1024, 1600x1200, 576p, 720p, 1080i, 1080p 60Hz
	3. Mode
4. Function Select	PIP (PIP, POP and Single Loop selection)
	SWAP (Swap between main & secondary windows in PIP or POP mode)
	AUTO (Auto adjust for PC Video Parameter **VGA mode only)
	CONT/BRT (Quick select and adjustment for Video Parameter)
	SEL (Selection of main Windows)
5. Menu Function	Menu : "On Screen Display" OSD Menu
	Left/Right (Changing the value of the selected OSD control under "OSD" mode)
	Up/Down (Selection of the item in OSD control under "OSD" mode)
	*Left/Right (Changing the value of volume level under "Normal" mode)

Item	Description
1. DVI-I/Audio Output	DVI-I connector/3.5mm mini jack Output 1&2
2. DVI-D/Audio Input (Digital Video)	DVI-I connector/3.5mm mini jack Input 1&2
3. VGA/Audio Input	D Sub 15pin/3.5mm mini jack Input 1&2
4. RS-232 Communication Port	3.8 mm terminal block
5. DC power Input	12V DC Input

RS-232 COMMAND CODE

Communication Parameter		RS-232 Connection	
Description	Setting	Pin	Function
Baud Rate :	9600bps	1	- Not Used
Data Length :	8 bits	2	Tx Transmit data
Parity :	Non Parity	3	Rx Receive data
Stop Bit :	One stop bit	4	- Not Used
X on/Off :	None	5	Gnd Signal Ground
		6	- Not Used
		9	- Not Used
		10	- Not Used

Item	Description	Command Code (Hex)
1. Power ON		TX 53 45 54 43 31 30 50 33 31
		RX 52 45 54 43 31 30 50 33 31
2. Power OFF		TX 53 45 54 43 31 30 50 33 30
		RX 52 45 54 43 31 30 50 33 30
3. Get Power Status		TX 53 45 54 43 30 31 50 30
		RX 52 45 54 43 31 31 50 33 31 (ON)
		RX 52 45 54 43 31 31 50 33 30 (Standby Mode)
4. Resolution Mode Toggle		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 30
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 30
5. 640 x 480 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 32
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 32
6. 640 x 480 @75Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 33
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 33
7. 800 x 600 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 30
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 30
8. 800 x 600 @72Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 34
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 34
9. 800 x 600 @75Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 35
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 35
10. 1024 x 768 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 31
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 31
11. 1024 x 768 @70Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 36
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 36
12. 1024 x 768 @75Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 37
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 37
13. 1024 x 852 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 38
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 38
14. 1024 x 1024 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 32
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 32
15. 1280 x 960 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 33
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 33

16. 1280 x 1024 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 34
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 34
17. 1280 x 1024 @75Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 39
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 39
18. 1366 x 768 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 35
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 35
19. 1366 x 1024 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 36
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 36
20. 1600 x 1200 @60Hz		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 37
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 37
21. 576P		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 38
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 38
22. 720P		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 30 39
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 30 39
23. 1080I		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 30
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 30
24. 1080P		TX 53 45 54 43 37 30 52 33 31 30 30 31 30 31 31
		RX 52 45 54 43 37 30 52 33 31 30 30 31 30 31 31
25. Picture By Picture		TX 53 45 54 43 37 30 4D 33 31 30 30 31 30 30 32
		RX 52 45 54 43 37 30 4D 33 31 30 30 31 30 30 32
26. Swap		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 34
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 34
27. Single Mode		TX 53 45 54 43 37 30 4D 33 31 30 30 31 30 30 30
		RX 52 45 54 43 37 30 4D 33 31 30 30 31 30 30 30
28. Picture In Picture		TX 53 45 54 43 37 30 4D 33 31 30 30 31 30 30 31
		RX 52 45 54 43 37 30 4D 33 31 30 30 31 30 30 31
29. Menu		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 31
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 31
30. Up Key		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 32
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 32
31. Down Key		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 33
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 33
32. Left Key		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 34
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 34
33. Right Key		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 35
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 35
34. Select		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 31
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 31
35. Window Layout		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 33
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 33
36. Contrast/ Brightness (Toggle)		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 32 32
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 32 32
37. VGA 1 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 36
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 36
38. VGA 2 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 37
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 37
39. VGA 3 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 38
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 38
40. VGA 4 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 31 39
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 31 39
41. DVI 1 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 32 30
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 32 30
42. DVI 2 Input		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 32 31
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 32 31
43. Front Panel Lock		TX 53 45 54 43 31 30 4C 33 31
		RX 52 45 54 43 31 30 4C 33 31
44. Front Panel Unlock		TX 53 45 54 43 31 30 4C 33 30
		RX 52 45 54 43 31 30 4C 33 30
45. VOL UP		TX 53 45 54 43 35 30 56 42 31 30 30 31 30
		RX Return Code will base on Current Volume Level
46. VOL Down		TX 53 45 54 43 35 30 56 42 31 30 30 31 31
		RX Return Code will base on Current Volume Level
47. VOL Mute/Unmute		TX 53 45 54 43 37 30 4B 33 31 30 30 31 30 30 37
		RX 52 45 54 43 37 30 4B 33 31 30 30 31 30 30 37
48. VOL 01		TX 53 45 54 43 08 30 56 37 31 01 01 01 01 01 01
		RX 52 45 54 43 08 30 56 37 31 01 01 01 01 01 01
49. VOL 10		TX 53 45 54 43 08 30 56 37 31 01 01 01 01 01 01
		RX 52 45 54 43 08 30 56 37 31 01 01 01 01 01 01
50. VOL 15		TX 53 45 54 43 08 30 56 37 31 01 01 01 01 01 01
		RX 52 45 54 43 08 30 56 37 31 01 01 01 01 01 01
51. VOL 20		TX 53 45 54 43 08 30 56 37 31 01 01 01 01 01 01
		RX 52 45 54 43 08 30 56 37 31 01 01 01 01 01 01
52. VOL 32 (max)		TX 53 45 54 43 08 30 56 37 31 01 01 01 01 01 01
		RX 52 45 54 43 08 30 56 37 31 01 01 01 01 01 01
53. Output 2 Enable (VGA Only)		TX 53 45 54 43 01 30 63 34 01
		RX 52 45 54 43 01 30 63 34 01
54. Output 2 Disable (VGA Only)		TX 53 45 54 43 01 30 63 34 00
		RX 52 45 54 43 01 30 63 34 00