



SP6540/ SP6540-T

User Guide



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Safety Information

- Before setting up the IWB, carefully read all the documentation that came with the package.
- To prevent fire or shock hazard, never expose the IWB to rain or moisture.
- Never try to open the IWB cabinet. The dangerous high voltages inside the IWB may result in serious physical injury.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- Slots and openings on the back or top of the cabinet are provided for ventilation. Do not block these slots. Never place this product near or over a radiator or heat source unless proper ventilation is provided.
- The IWB should be operated only from the type of power source indicated on the label. If you are not source of the type of power supply to your home, consult your dealer or local power company.
- Use the appropriate power plug which complies with your local power standard.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Avoid dust, humidity, and temperature extremes. Do not place the IWB in any area where it may become wet. Place the IWB on a stable surface.
- Unplug the unit during a lightning storm or if it will not be used for a long period of time. This will protect the IWB from damage due to power surges.
- Never push objects or spill liquid into the slots on the IWB cabinet.
- To ensure satisfactory operation, use the IWB only with personal computers which have appropriate configured receptacles marked between 100-240V AC.
- If you encounter technical problems with the IWB, contact a qualified service technician or your retailer.
- A warning that an apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.
- When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause an electric shock and serious personal injury. Read the owner's manual of the other equipment carefully and follow the instruction when making any connections
- The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Warning: battery exposure to heat missing



The symbol of the crossed out wheeled bin indicates that the product (electrical, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

Care & Cleaning

- Before you lift or reposition your IWB, it is better to disconnect the cables and power cord. Follow the correct lifting techniques when positioning the IWB. When lifting or carrying the IWB, grasp the edges of the IWB. Do not lift the display by the stand or the cord.
- Cleaning. Turn your IWB off and unplug the power cord. Clean the IWB surface with a lint-free, non-abrasive cloth. Stubborn stains may be removed with a cloth dampened with mild cleaner.
- Avoid using a cleaner containing alcohol or acetone. Use a cleaner intended for use with the IWB. Never spray cleaner directly on the screen, as it may drip inside the IWB and cause an electric shock.

The following symptoms are normal with the IWB:

- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- When the same image is displayed for hours, an afterimage of the previous screen may remain after switching in the image. The screen will recover slowly or you can turn off the Power Switch for hours.
- When the screen becomes black or flashes, or cannot work anymore, contact your dealer or service center to fix it. Do not repair the screen by yourself!

Conventions used in this guide



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Information that you **MUST** follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

Where to find more information

Refer to the following sources for additional information and software updates

1. ASUS websites

The ASUS websites worldwide provide updated information on ASUS hardware and software products. Refer to <http://www.asus.com>

2. Optional documentation

Your product package may include optional documentation that may have been added by your dealer. These documents are not part of the standard package.

1.1 Welcome!

Thank you for purchasing the ASUS® Interactive Whiteboard (IWB) !

The latest widescreen interactive whiteboard from ASUS provides a broader, brighter and crystal clear display, plus a host of features that enhance your viewing experience.

With these features, you can enjoy the convenience and delightful visual experience that the IWB brings to you

1.2 Package Contents

Check your package for the following items:

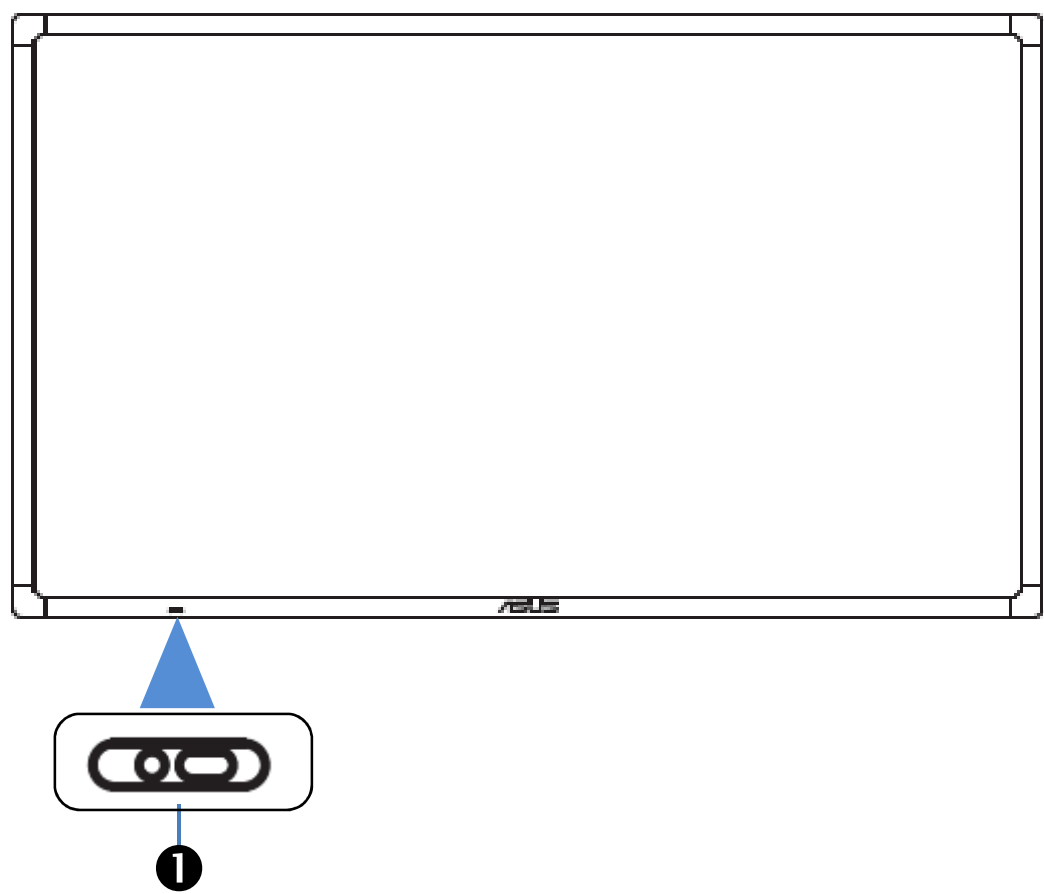
- ✓ Interactive Whiteboard
- ✓ Remote Control with battery (CR2025)
- ✓ Quick start guide
- ✓ Warranty card
- ✓ Power cord
- ✓ Touch USB A-B type cable
- ✓ HDMI Cable (*depends on the region)
- ✓ Touch Pan(*depends on the region)



If any of the above items is damaged or missing, contact your retailer immediately.

1.3 IWB Introduction

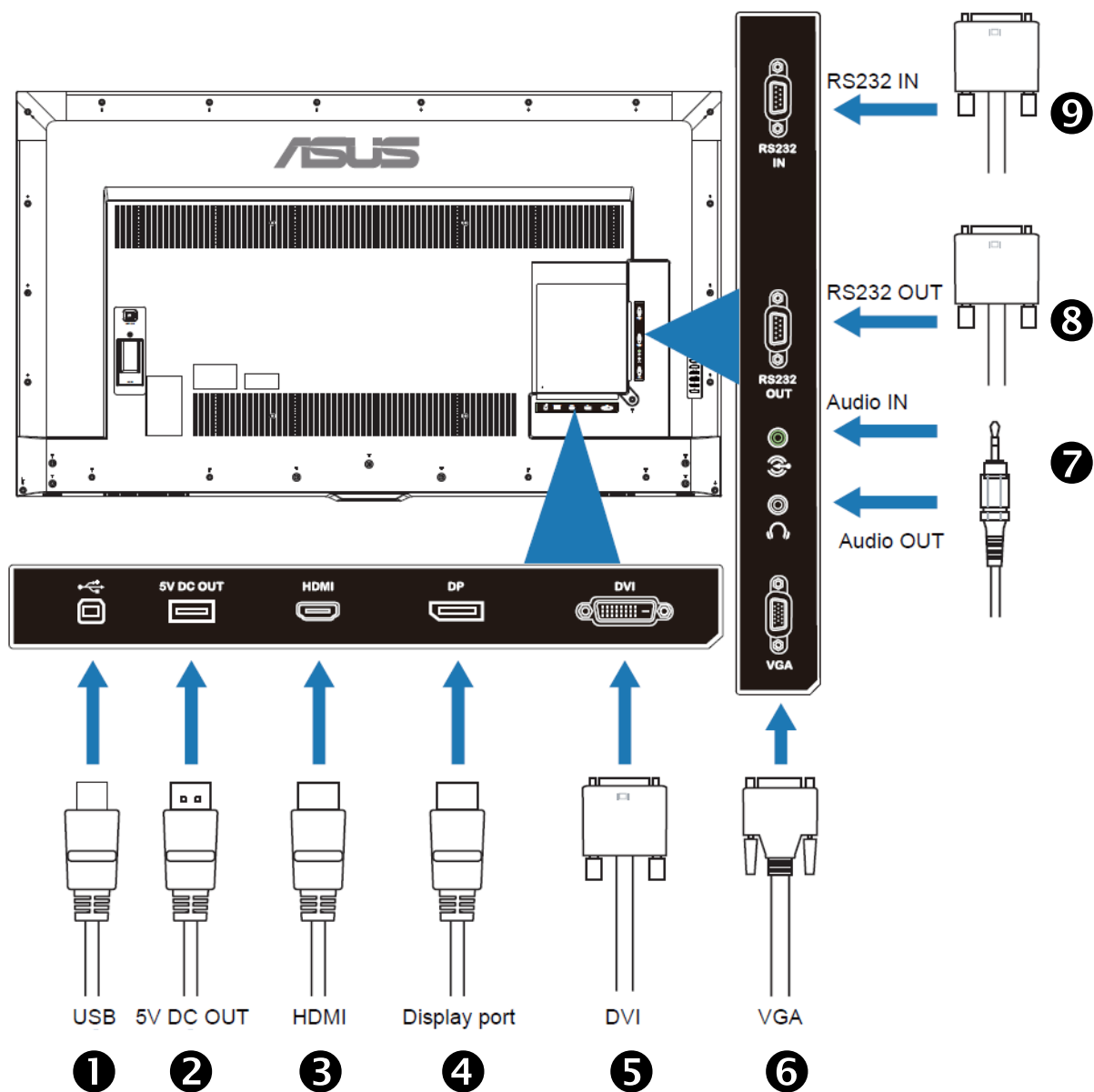
1.3.1 Front View



- ❶ Remote control sensor
 - Receives command signals from the remote control
 - Represent the status of the IWB without any OPS

Status	Description
White	ON
White Flicker	Stand by/ Power Saving
OFF	OFF

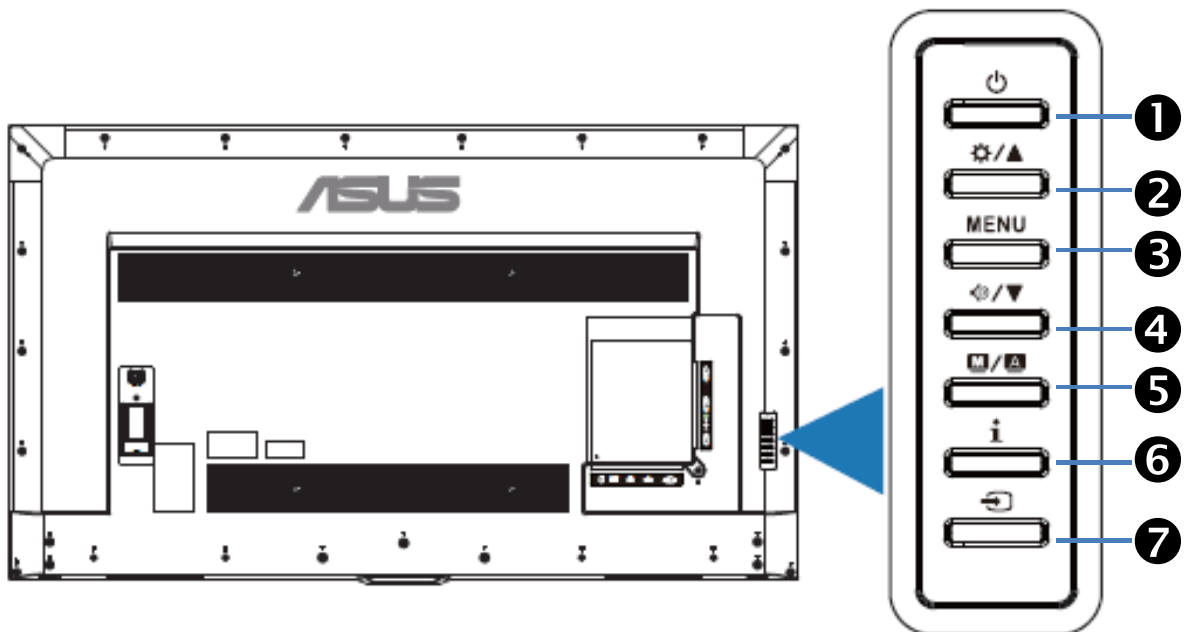
1.3.2 Input/ Output Terminals



- ❶ **Touch USB**
Connect with PC for IWB for IWB touch function
- ❷ **5V DC OUT**
To supply 5V DC power
- ❸ **HDMI**
HDMI video/ audio input
- ❹ **Display Port**
Display Port video input
- ❺ **DVI**
DVI-D video input

- ❻ **VGA**
VGA video input
- ❼ **AUDIO IN/OUT**
Audio input from external AV device
Audio output to an external AV device
- ❽ **RS232 OUT**
RS232C network output for the loop-through function
- ❾ **RS232 IN**
RS232C network input for the loop-through function

1.3.3 Control Panel



❶ **POWER button**

Use this button to turn the display on or put the display to standby.

❷ **⚙️/▲ button**

- Brightness hotkey.
- Move the highlight bar up to adjust the selected item while OSD menu is on.

❸ **MENU button**

- Turns on the OSD menu.
- Exits the OSD menu or go back to the previous menu when the OSD menu is active.

❹ **🔊/▼ button**

- Speaker volume hotkey.
- Move the highlight bar down to adjust the selected item while OSD menu is on.

❺ **M/A button**

- Selects a desired preset mode.
- Automatically adjusts the image to its optimized position, clock, and phase by pressing this button for 2-4 seconds (for VGA mode only).

❻ **i button**

Show the IWB information.

❼ **↶ button**

Selects an available input sources after connection HDMI/Display Port /DVI/VGA cable with the IWB.

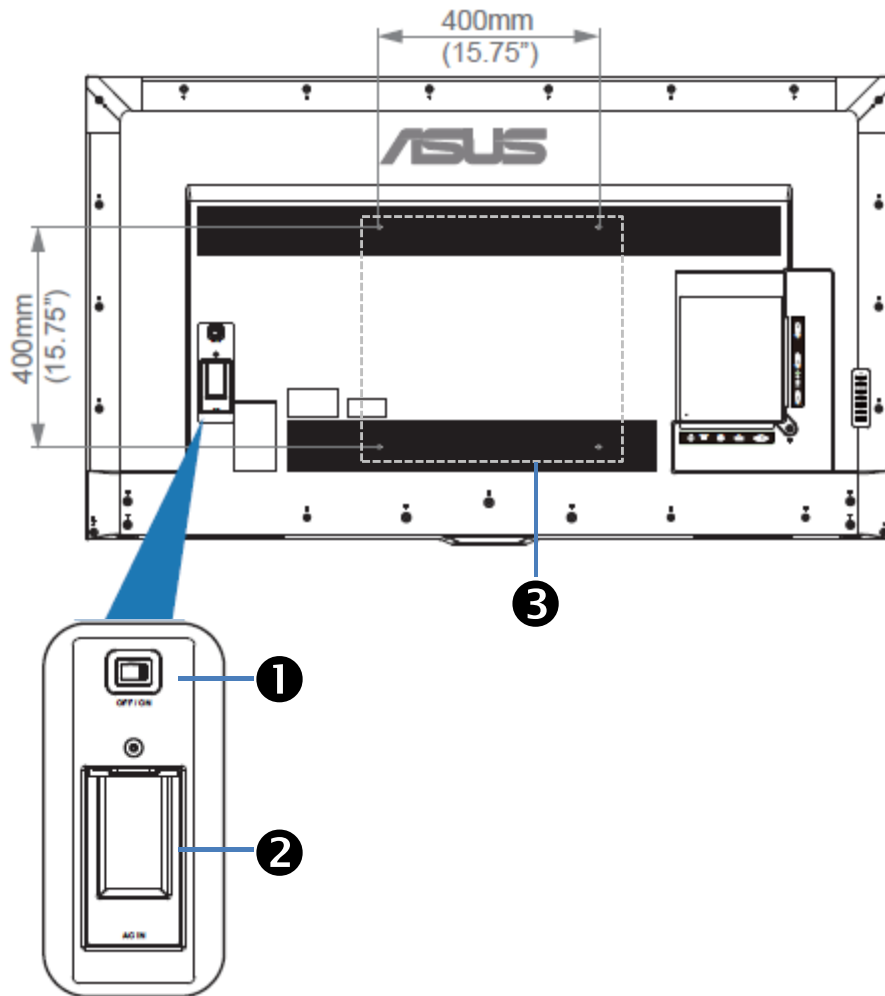


Key Lock



Press 5 secs

1.3.4 AC-IN & VESA mount grid



❶ POWER switch

Press the switch to turn on/off power

❷ AC-IN port

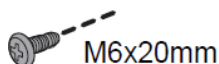
This port connects the power cord
(power source requirement: 100-240V~50/60Hz 2.5A)

❸ VESA mount

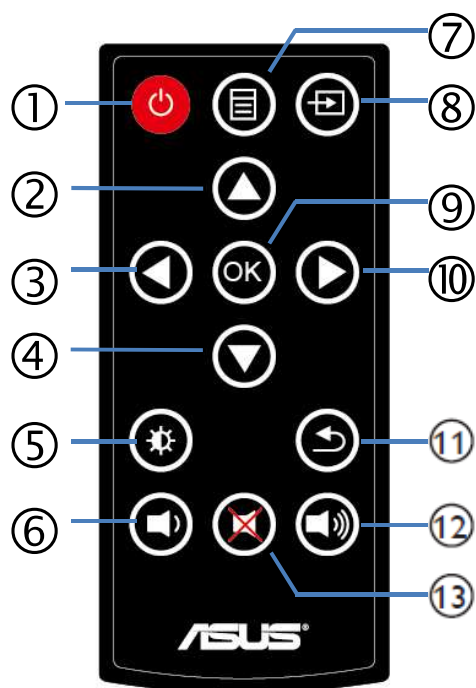
Mount this IWB by wall mount, ceiling mount, table stand, etc.



For the wall-mounting kit, use M6 mounting screws (having a length 20 mm longer than the thickness of the mounting bracket) and tighten them securely.



1.3.5 Remote Control



Key Lock



① [] button

Press to switch on the display from standby mode. Press again to turn it off and back into standby mode.

② [] button

Press to move the selection up in OSD menu.

③ [] button

Press to move the selection left in OSD menu.

④ [] button

Press to move the selection down in OSD menu.

⑤ [] button

Press to adjust Brightness.

⑥ [] button

Press to decrease the speaker value.

⑦ [] button

Press to turn the OSD menu on/off

⑧ [] button

Selects an available input sources

⑨ [] button

Press to activate the setting inside the OSD menu.

⑩ [] button

Press to move the selection right in OSD menu.

⑪ [] button

Press to turn back to the previous OSD menu.

⑫ [] button

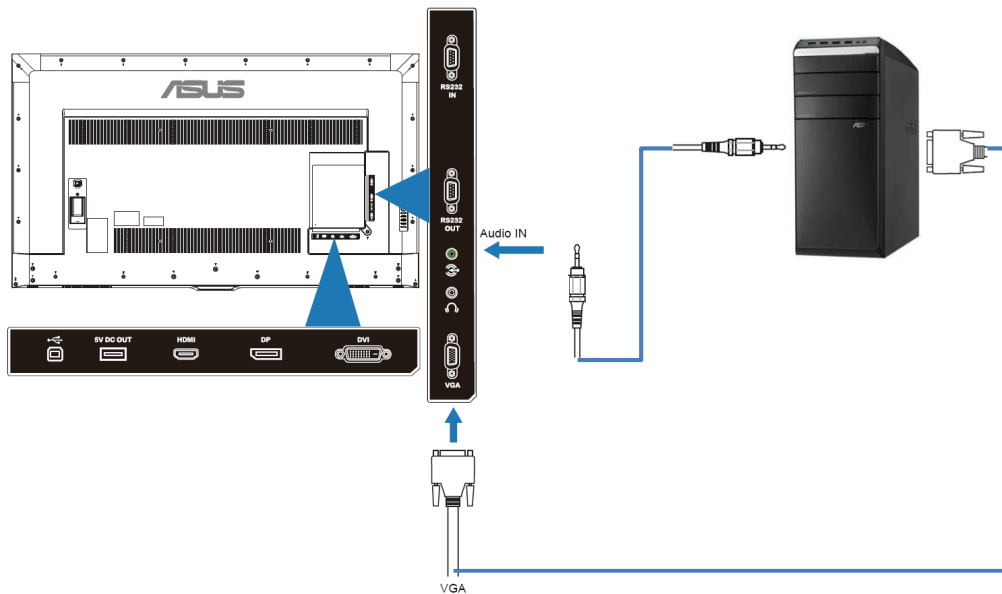
Press to increase the speaker value

⑬ [] button

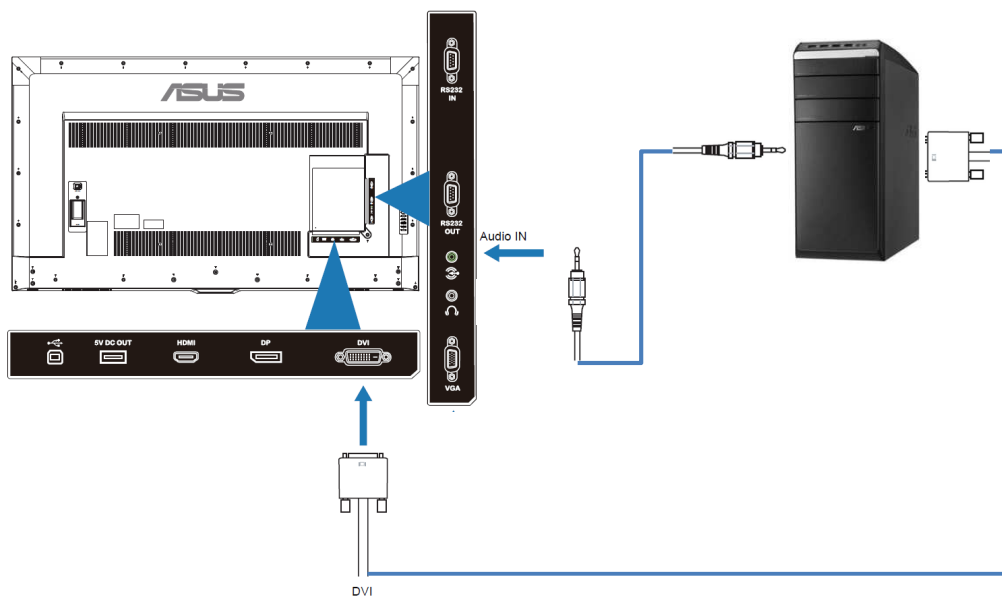
Press to turn the mute function on /off

2. Connecting the Cables

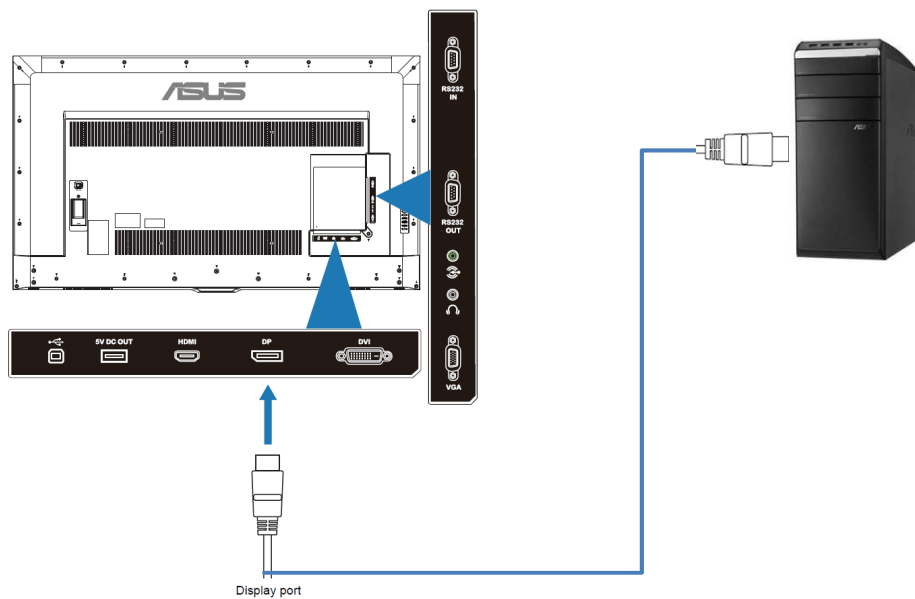
2.1 Using VGA input



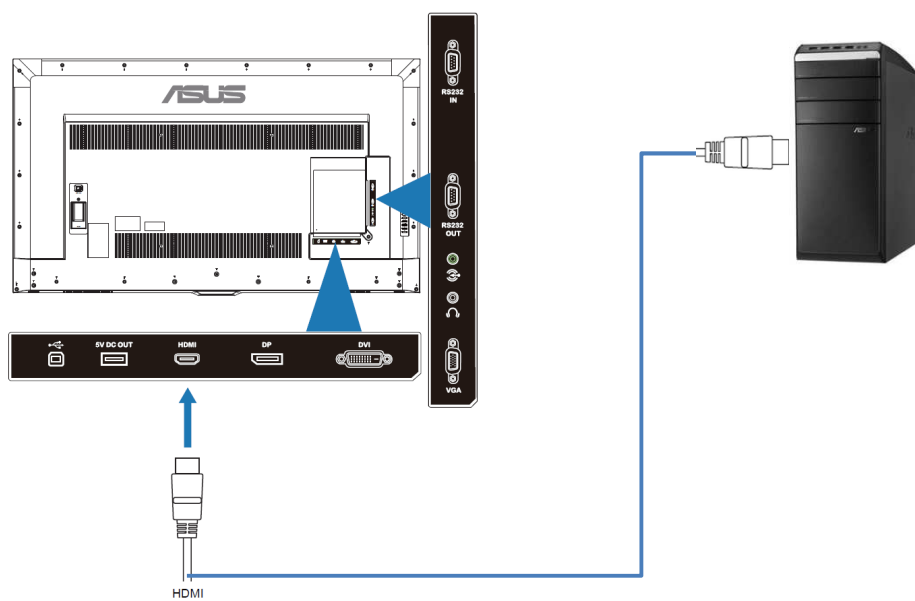
2.2 Using DVI input



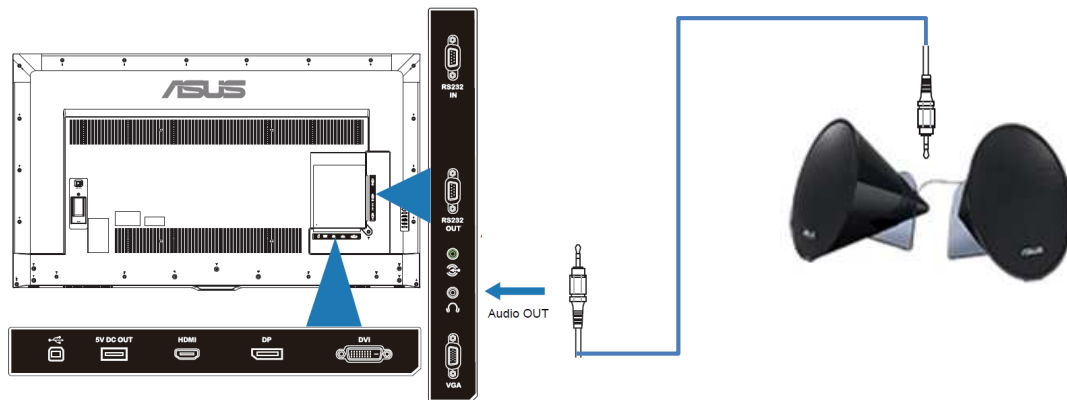
2.3 Using DP input



2.4 Using HDMI input

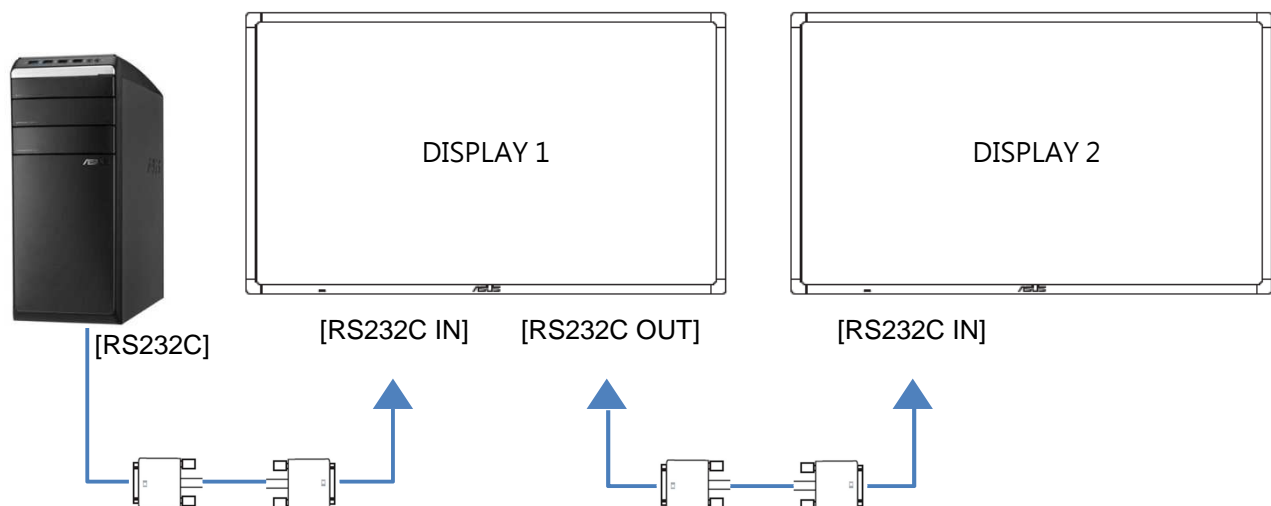


2.5 Connecting External Speakers



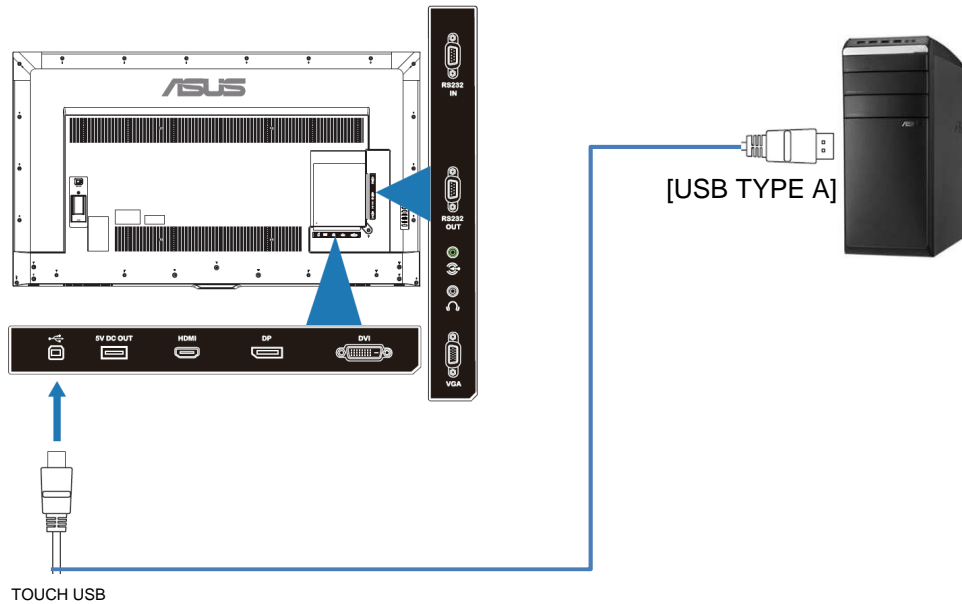
2.6 Display Control Connection

Connect the [RS232C OUT] connector of DISPLAY 1 to the [RS232C IN] connector of DISPLAY 2.



2.7 Touch Module Connection

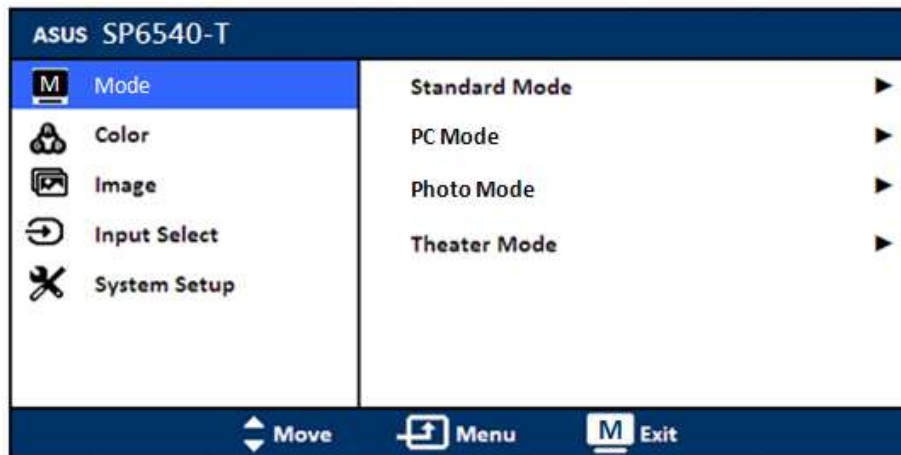
Connect the [TOUCH USB] connector to PC or devices [USB TYPE A] connector.



Please keep the gap between your fingers at least 50mm while you are using multi-touch capability.

3.1 OSD (On-Screen Display) menu

3.1.1 How to reconfigure

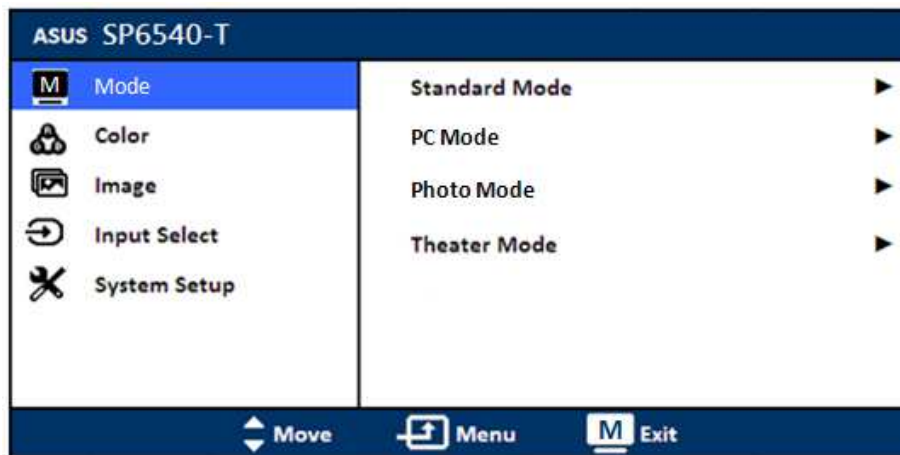


1. Press the 「**MENU**」 button to activate the OSD menu.
2. Press the /▲ and ◀/▼ buttons to navigate through the functions.
Highlight the desired function and press the **MENU** button to activate it. if the function selected has a sub-menu, press the /▲ and ◀/▼ buttons to navigate through the sub-menu functions. Highlight the desired sub-menu functions and press the **MENU** button to activate it.
3. Press the /▲ and ◀/▼ buttons change the settings of the selected function.
4. To exit and save the OSD menu, press the **M/A** button repeatedly until the OSD menu disappear adjust other functions, repeat steps 1-3. T

3.1.2 OSD function introduction

1. Mode

This function contains 4 sub-functions you can select for your preference. Each mode has the Reset selection, allowing you to maintain your setting or return to the preset mode.



- **Standard Mode:** more items are adjustable in the Color menu.
- **PC Mode:** best choice for document editing
- **Photo Mode:** best choice for scenery photo display.
- **Theater Mode:** best choice for movies.

Function	Standard Mode	PC Mode	Photo Mode	Theater Mode
Brightness	Yes	No	Yes	Yes
Contrast	Yes	No	Yes	Yes
Saturation	No	No	Yes	Yes
Color Temperature	Yes	No	Yes	Yes
Skin Tone	No	No	Yes	Yes

2. Color

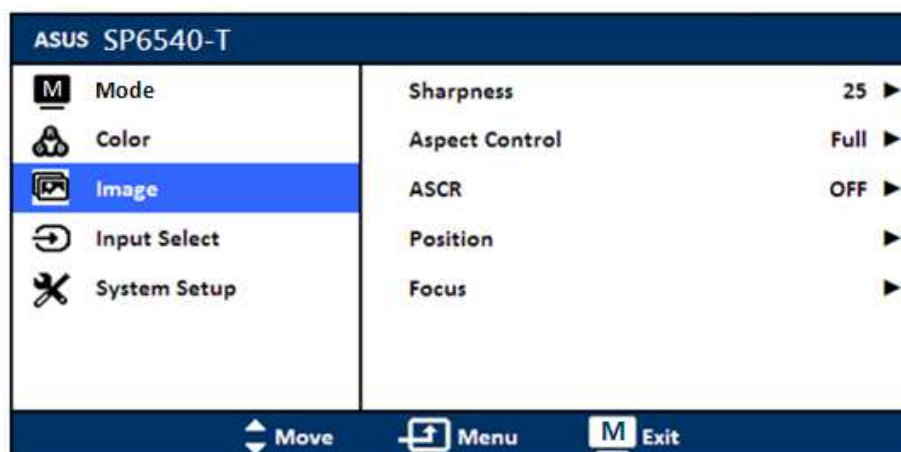
Set a desired color setting from this menu.



- **Brightness** : the adjusting range is from 0 to 100
- **Contrast** : the adjusting range is from 0 to 100
- **Saturation** : the adjusting range is from 0 to 100
- **Color Temperature** : contains 3 modes including Cool, War, and User Mode.
- **Skin Tone** : contains 3 modes including Reddish, Nature and Yellowish.

3. Image

Set the image related setting from this menu.



- **Sharpness** : the adjusting range is from 0 to 100.
- **Aspect Control** : adjusts the aspect ratio to full, 4:3, 1:1 or OverScan.

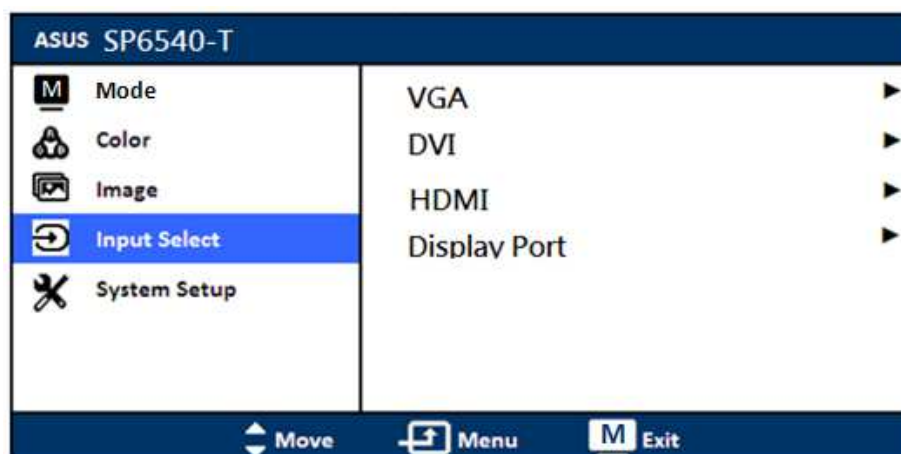


4:3 is only available when input source is in 4:3 format. OverScan is only available for HDMI input source

- **ASCR** : turns on/off the ASCR (ASUS Smart Contrast Ratio) function.
- **Position** : adjusts the horizontal position (H-Position) and the vertical position (V-Position) of the image. The adjusting range is from 0 to 100.
- **Focus** : reduces Horizontal-line noise and Vertical-line noise of the image by adjusting(Phase) and (Clock) separately. The adjusting range is from 0 to 100.

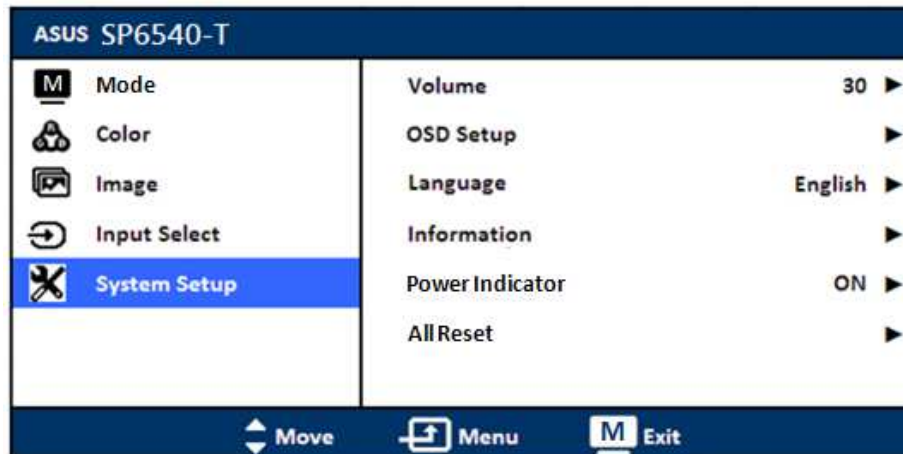
4. Input Select

In this function, you can select your desired input source.



5. System Setup

Allows you to adjust the system.




- **Volume:** the adjusting range is from 0 to 100.
- **OSD Setup :**
 - * Adjusts the horizontal position (H-Position)/the vertical position (V-Position) of the OSD from 0 to 100.
 - * Adjusts the OSD timeout from 10 to 120 seconds.
- **Language :** select OSD language • There are 21 languages for your selection, including English, French, German, Spanish, Italian, Dutch, Russian, Simplified Chinese, Traditional Chinese and Japanese...,etc.
- **Information :** shows the IWB information.
- **Power Indicator :** turns the power LED indicator on/off.
- **All Reset :** "Yes" allows you to restore the default settings.

3.2. Specifications summary

Model Name			SP6540-T
Display	Active Area/Diagonal		1428x804mm / 64.5"
	Resolution/Frame Rate		1920x1080 / 120Hz
	Pixel Pitch		0.74mm
	Brightness		350 cd/m2
	Contrast Ratio		4000:1 (normal)
	ASCR Smart Contrast Ratio		4,000,000 :1
	Viewing Angle		178°(H)/178°(V)
	Response Time		8ms (G to G)
Touch	PC connector		USB
	Driver		Windows 7, Windows 8.1
	Detection Method		Optical touch detecting, 4 points simultaneously
	Coordinate Resolution		32,767 x 32,767 pixel
	Detecting Rate		100pps
Input / Output Terminals	Video Input	Display Port	DP x1
		HDMI	HDMI x1
		DVI	DVI-D x1
		RGB	D-sub x1
	Audio Input	Stereo	3.5mm jack x1
	Audio Output	Stereo	3.5mm jack x1
		Built-in speakers	10W (x2)
	USB Ports		USB2.0 with charging Capability 0.5A
Control	Wired	Serial Bus	RS232C in, RS232C out
	Wireless	Controller	IR remote
Power	Operating (Max.)		220W
	Stand-By (Max.)		0.5 W
Mechanical Design	Chassis		Black Painted steel front bezel Black plastic rear Cover
	Mounting Interface(mm)		400x400
	Dimension (W x H x D)		1507x 882x 96mm
	Net Weight(kg)		40kg

3.3. Trouble Shooting (FAQ)

Problem	Possible Solution
Power LED is not ON	<ul style="list-style-type: none">• Press the  button to check if the IWB is in the ON mode• Check if the power cord is properly connected to the IWB and the power outlet.• Check power LED function in the OSD menu, press on to active it.
The power LED lights on but there is no screen image	<p>Check if the IWB and the computer are in the ON mode.</p> <ul style="list-style-type: none">• Make sure the signal cable is properly connected the IWB and the computer.• Inspect the signal cable and make sure none of the pins are bent.• Connect the computer with another available IWB to check if the computer is properly working.
Screen image bounces or a wave pattern is present in the image	<ul style="list-style-type: none">• Make sure the signal cable is properly connected to the IWB and the computer.• Move electrical devices that may cause electrical interference.
No sound or the sound is too low	<ul style="list-style-type: none">• Adjust the volume setting between the IWB and the PC.• Make sure the computer already install and active the computer card device driver.
Touch function is not working	<ul style="list-style-type: none">• Check the IWB is properly connected to the computer through the USB cable.• Computer must have Windows 7 version or above and does not support Android system.• Check if the computer have HID device.• Check if the reflective tape in the front bezel are dirty or broken.
Screen image is too light or dark	Adjust the Contrast and Brightness settings via OSD

3.4. Supported Timing

The following table displays optimum quality modes that the LCD IWB provides.

If the other video modes are used, the IWB will stop working or display a poor quality picture.

Mode	Resolution (active dot)	Resolution (total dot)	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Nominal Pixel Clock (MHz)
VGA	640x480@60Hz	800 x 525	31.469	59.940	25.175
SVGA	800x600@60Hz	1056 x 628	37.879	60.317	40.000
XGA	1024x768@60Hz	1344x806	48.363	60.004	65.000
SXGA	1280x1024@60Hz	1688x1066	63.981	60.020	108.000
	1280x960@60Hz	1800x1000	60.000	60.000	108.00
WXGA	1280x800@60Hz	1680x831	49.702	59.810	83.500
	1280x720@60Hz	1650x750	45.00	60.000	74.25
	1280x768@60Hz	1664x798	47.776	59.870	79.5
	1360x768@60Hz	1792x795	47.712	60.015	85.500
	1366x768@60Hz	1792x798	47.712	59.790	85.500
WXGA+	1440x900@60Hz	1904x934	55.935	59.887	106.500
UXGA	1600x1200@60Hz	2160x1250	75.000	60.000	162.000
WSXGA+	1680x1050@60Hz	2240*1089	65.290	59.954	146.250
WUXGA	1920x1080@60Hz	2200x1125	67.500	60.000	148.500
	1920x1080@60Hz	2080x1111	66.587	59.934	138.500

- **HDMI-AV mode support:** 480p/ 720p/ 1080p