• USER MANUAL •

42"Plasma Multimedia Display Monitor



IMPORTANT SAFETY INSTRUCTIONS



WARNING: To reduce the risk of electric shock, do no remove the front or back covers. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrow-head within a triangle is intended to inform the user that parts inside the product are a risk of electric shock.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are explained.

WARNINGS & PRECAUTIONS

- To prevent damage which may result in fire or shock hazard, do not expose this product to rain or moisture.
- To prevent electric shock, do not remove cover. No user serviceable parts are inside. Refer servicing to qualified service personnel only.
- Keep monitor away from excessive dust, high temperatures, moisture or direct sunlight.
- Use in a well-ventilated area and do not cover ventilation openings.
- Unauthorized modification this equipment or usage of an unshielded connecting cable may cause excessive interference.
- When the monitor is not in use for a long period of time, disconnect it from the electric outlet.
- If the picture displayed is in any way abnormal, turn off the unit and disconnect it from the electric outlet. Verify your signal wire connections and reconnect the monitor to the electric outlet.
- Disconnect from the electric outlet before cleaning. Do not use liquid or aerosol cleaners. Use only a slightly damp cloth for cleaning.
- Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage.
- Do not place the unit on a bed, sofa, rug, or other similar surfaces. Never place the unit near or over a radiator or heat source. Do not install unit in an enclosed area unless proper ventilation is provided.
- The unit should be operated from the type of power source indicated on the label. If the type of available power is unknown, consult your dealer or local power company.
- The unit is equipped with a 3-pin grounded plug. The plug will only fit into a grounded power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician. Do not alter the plug; this will defeat the safety feature.
- Do not rest objects on the power cord & avoid placing power cord near high traffic areas.
- Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
- Disconnect the unit from the main supply and refer servicing to qualified service personnel under the following conditions:
 - Power cord or plug is damaged or frayed.
 - Liquid has been spilled into the product.
 - Unit has been exposed to water or moisture.
 - Unit does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions, improper adjustment of other controls may result in damage which often requires extensive work by a qualified technician to restore the unit to normal operation.
 - Unit has been dropped or the cabinet has been damaged.
 - Unit exhibits a distinct change in performance, indicating a need for service.

TABLE OF CONTENTS

IMPORTANT SAFETY INSTRUCTIONS	1
TABLE OF CONTENTS	2
FCC STATEMENT	3
Wichtige Sicherheitshinweise	4
CLEANING AND MAINTENANCE	5
PACKAGE CONTENTS	6
UNDERSTANDING YOUR MONITOR	
Front View	7
Rear View	7
CONNECTING THE MONITOR	
Connecting a PC	8
USING THE MONITOR - BASICS	
Powering ON/OFF	9
Selecting Signal Source	9
ADVANCED FUNCTIONS	
Widescreen (16:9 Aspect Ratio) Viewing Modes	9
On-Screen Display (OSD) Settings	10
Sleep Timer Settings	10
Signal Frequency Information Display	11
ADJUSTING PICTURE	
For RGB / DVI	12
TROUBLESHOOTING	13
SPECIFICATIONS	14
WALL MOUNT (OPTIONAL) INSTALLATION	19

FCC STATEMENT

FCC Compliance Statement

The equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in strict accordance with the instruction manual, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

Shielded interconnected cables and shield power cords must be employed with this equipment to insure compliance with the pertinent RF emission limits governing this device.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment and invalidate the warranty.

Canadian Compliance Statement

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Wichtige Sicherheitshinweise

- 1. Bitte lesen Sie sich diese Hinweise sorgfältig durch.
- 2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
- Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssig- oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.
- 4. Umeine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zubehörteile verwenden, die vom Hersteller zugelassen sind.
- 5. Das Gerät ist vor Feuchtigkeit zu schützen.
- 6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.
- 7. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
- 8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
- 9. Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.
- 10. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
- 11. Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
- 12. Wird das Gerät uber einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen.Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
- 13. Durch die Lüftungsäffnungen dürfen niemals Gegenstände oder Flussigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
- 14. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.
- 15. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprufen:
- Netzkabel oder Netzstecker sind beschädigt.
- Flussigkeit ist in das Gerät eingedrungen.
- Das Gerät war Feuchtigkeit ausgesetzt.
- Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
- Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
- Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
- Bei Reparaturen d
 ürfen nur Orginalersatzteile bzw. Den Orginalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Besch
 ädigung hervorrufen.
- 17. Wenden Sie sich mit allen Fragen die Service und Reparatur betreffen an Ihren

Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerätes sicher.

CLEANING AND MAINTENANCE

Cautions When Using the Plasma Display

- Do not bring your hands, face or objects close to the ventilation holes of the plasma display. Top of plasma display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries may ocurr if any body parts are brought too close. Placing any object near the top of the display could also result in heat related damages to the object as well as the display itself.
- Be sure to disconnect all cables before moving the plasma display. Moving the display with its cables attached may damage the cables and thus case fire or electric shock danger.
- Disconnect the power plug from the wall outlet as a safety precaution before carrying out any type of cleaning or maintenance procedure.

Front Panel Cleaning Instructions

- The front of the display has been specially treated. Wipe the surface gently using only a cleaning cloth or a soft, lint-free cloth.
- If the surface is particular dirty, soak a soft, lint-free cloth in a mild detergent solution. Wring the cloth to remove excess liquid. Wipe the surface of the display to remove dirt. Then use a dry cloth of the same type to dry.
- Do not scratch or hit the surface of the panel with fingers or hard objects of any kind.
- Do not use volatile substances such as insect sprays, solvents and thinners.

Cabinet Cleaning Instructions

- If the cabinet becomes dirty, wipe the cabinet with a soft, dry cloth.
- If the cabinet is extremely dirty, soak a lint-free cloth in a mild detergent solution. Wring the cloth to remove as much moisture possible. Wipe the cabinet. Use another dry cloth to wipe over until the surface is dry.
- Do not allow any water or detergent to come into contact with the surface of the display. If water or moisture gets inside the unit, operating problems, electrical and shock hazards may result.
- Do not scratch or hit the cabinet with fingers or hard objects of any kind.
- Do not use volatile substances such as insect sprays, solvents and thinners on the cabinet.
- Do not place anything made from rubber or PVC near the cabinet for any extended periods of time.

Avoid Still Images

Do not allow a still picture to be displayed for extended periods of time. This can cause a permanent image to remain on the plasma display. Examples of still images may include: still computer images, still video game images, still logos or pictures, text and images displayed in 4:3 Normal mode.

Contents of this manual is subject to change without notice.

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PACKAGE CONTENTS

Supplied Accessories

Please verify that you received the following items with your package content:

Plasma Monitor

User Manual





Power Cable

VGA Cable





UNDERSTANDING YOUR MONITOR

Front View



Power (Standby) Button

Turns power on/off from standby mode. There is a 3-second wait between on/off cycles.

Status LED

- Not Illuminated No AC Power detected If the main power switch (rear of panel) is turned off, this LED will not illuminate.
- Solid Yellow Standby (Power OFF) with AC power detected The LED will illuminate in yellow color if the monitor is shut-off but the main power cord is plugged into the back of the unit.
- Solid Green Power ON

Rear View

Input Button

Use this button to switch between available inputs.

Menu +/- Buttons

Use this menu to engage the On Screen Display menu.

Volume Adjustment +/- Buttons

Use these buttons to adjust settingt when On Screen Display is engaged.



Connecting a PC

Using RGB or DVI Video Input

For most PC's, connect the 15-pin D-Sub RGB connector from the back of the PC to the RGB-IN Connector located on the back of the monitor. If you have a PC that is equipped with a DVI (Digital Visual Interface), you may connect the PC DVI connector from the back of the PC to the DVI-In Connector located on the back of the monitor.

Notes:

- A RGB loop-out labeled "RGB Out" will allow another RGB monitor to be connected. The RGB loop-out will display the same signal as the RGB In signal source.
- The physical display resolution is a maximum of 640x480 dots when aspect ratio is set to "4:3", and 852x480 dots when set to "16:9". If the PC's display resolution exceeds these maximums, the monitor will have to artificially eliminate dots in order to fit within the physical dot capability of the display; therefore, it is possible that the monitor may not be able to show details with adequate clarity.



USING THE MONITOR - BASICS

Powering ON / OFF

Using Front Panel or Remote Control

- Make sure the monitor is plugged into the wall outlet and the main AC switch located in the rear of the monitor is switched to ON position. If the power is plugged in and the AC switch is on, the STATUS LED will illuminate in solid yellow color.
- 2. Press the POWER button on the front panel or the remote control.
- 3. The monitor will now turn on after a brief pause. The STATUS LED will now turn green to indicate power on status.
- 4. To turn power off, simply press the POWER button on the front panel or the remote control once again.



Selecting Signal Source



Using Front Panel or Remote Control

- 1. Press the INPUT key on the front panel or the INPUT SELECT key on the remote control.
- 2. Pressing the INPUT key will cycle the monitor thru all available input signal sources in the following order:

→ RGB → DVI -

Widescreen Viewing Modes

Accessing Widescreen Viewing Modes using OSD You can use the OSD menu to access the widescreen function. To access these modes using OSD:

- 1. Press the MENU +/- keys on the front control panel.
- 2. Make sure that the following "Picture" OSD menu is displayed.
- Use the MENU +/- keys to navigate to SCREEN WIDTH and use the ADJ +/- keys to switch between 4:3 or 16:9.

PICTURE SOUND OTHER • INPUT SOURCERGB • CONTRAST50 • BRIGHTNESS50 • COLOR TEMPERATURE6500D • CLOCK PHASE50 • SCREEN WIDTH16:9 • V-SIZE50 • V-CENTER50 • H-WIDTH50 • H-POSITION50 • SELECT ITEM ← → ADJUST VALUE

ADVANCED FUNCTIONS

On-Screen Display (OSD) Settings

Accessing OSD Settings Menu

PICTURE SOUND OTHER

You can set various OSD display settings from the OSD menu.

- 1. Press the MENU +/- keys on the front control panel.
- 2. Use the ADJ +/- keys to navigate to "OTHER" OSD sub-menu as displayed below.

OSD Timeout

Turns on OSD timer when set to ON. When set to ON, the OSD will automatically disappear from the display if no key action is detected for the set number of seconds. If set to OFF, then OSD will remain on the screen.

OSD Time Setting

Sets the number of seconds the OSD will remain active on the display before turning itself off. OSD TIMEOUT must be set to ON for this setting to function.

OSD Brightness

Sets the brightness level of OSD screen between 1 and 10.

OSD Background

You can set the OSD menu's background to transparent or with a blue background. Set to OFF if you want a transparent setting. Set to ON if you want a blue background.

Note:

To prevent permanent after-image, we strongly suggest setting the "OSD Timout" to ON.

Sleep Timer Settings

SELECT ITEM

Setting Sleep Timer Using OSD

To set the sleep timer using the OSD screen:

- 1. Press the MENU +/- keys on the front control panel.
- 2. Use the ADJ +/- keys to navigate to "OTHER" OSD sub-menu as displayed below.

ADJUST VALUE

- 3. Use the MENU +/- keys to navigate to SLEEP function.
- 4. Use the ADJ +/- keys to set to ON.
- 5. The monitor will function normally until the 1-minute mark. At the 1minute mark, the sleep timer will display a second by second countdown clock to notify that you that the monitor is about to turn off.





10

ADVANCED FUNCTIONS

Signal Frequency Information Display

Displaying Frequency of Signal

This monitor is capable of displaying the frequency level of the signal being displayed. To see signal frequency information:

- 1. Press the MENU +/- keys on front control panel.
- 2. Use the ADJ +/- keys to navigate to the "OTHER" OSD sub-menu.

PICTURE SOUND OTHER



INPUT H-FREQ (KHZ)

Displays the horizontal signal frequency of the signal currently displayed. Please use the frequency cross reference tables below to see which type of signal is being displayed under various input modes.

. INPUT V-FREQ (HZ)

Displays the vertical signal frequency of the signal currently displayed. Please use the frequency cross reference tables below to see which type of signal is being displayed under various input modes.

When Using RGB & DVI Inputs

Mod	e Horizontal	Vertical	Format	Refresh
1	31.5	59.9	640×480 (VGA)	60
2	37.9	72.8	640×480 (VGA)	72
3	37.5	75.0	640×480 (VGA)	75
4	43.3	85.0	640×480 (VGA)	85
5	35.1	56.3	800x600 (SVGA)	56
6	37.9	60.3	800x600 (SVGA)	60
7	48.1	72.2	800x600 (SVGA)	72
8	46.9	75.0	800x600 (SVGA)	75
9	53.7	85.0	800x600 (SVGA)	85
10	48.4	60.0	1024x768 (XGA)	60
11	56.5	70.0	1024x768 (XGA)	70
12	60.0	75.0	1024x768 (XGA)	75
13	68.7	85.0	1024x768 (XGA)	85
14	64.0	60.0	1280x1024 (SXGA)	60
15*	80.0	75.0	1280x1024 (SXGA)	75
16*	91.1	85.0	1280x1024 (SXGA)	85
18	31.5	70.0	720x400 (DOS)	70
19	31.5	50.0	640x480 (VGA)	50
20*	45.2	60.0	1280x720P (HDTV)	60
21*	33.8	60i	1920x1080i (HDTV)	60
22	31.5	70.0	640x350 (VGA)	70
23	31.7	60.4	852x480 (WVGA)	60
24	35.0	66.7	640x480 (Apple)	67
25	49.7	74.6	832x624 (Apple)	75
26	68.7	75.0	1152x870 (Apple)	75



- Notes:
 - When using RGB mode, the OSD will display a mode number that references the table above.
- Modes 15, 16, 20, 21 under RGB mode is not available when using with DVI input.
- Modes 24-26 are for use with Apple Macintosh computers.

PICTURE ADJUSTMENT

For RGB / DVI

Accessing Picture Adjustment Mode

Various picture adjustments can be set using the Picture Adjustment OSD menu. To access the OSD menu:

- Press the MENU +/- keys on the front control panel.
 The first menu displayed is the PICTURE menu. Make sure that the "Picture" OSD menu is displayed.
- Use the MENU +/- keys to move up and down to choose the option you wish to adjust. An explanation of each adjustment is listed below.
- 4. Use the ADJ +/- keys to change the setting.

PICTURE SOUND OTHER

INPUT SOURCE	RGB
	50
🔅 BRIGHTNESS	50
	6500D
🚯 CLOCK PHASE	50
	16:9
T V-SIZE	50
	50
↔ H-WIDTH	50
□ H-POSITION	50
SELECT ITEM ADJUST	

	CONTRAST Adjust Contrast to increase the level of "white" in the video picture. Increasing contrast will make white areas of the video picture brighter. Contrast works in conjuction with BRIGHTNESS.
Ŏ.	BRIGHTNESS Adjust brightness to enhance the level of dark areas in the video picture such as night scenes and shadow scenes. Increasing brightness will make dark areas more visible.
G ^R в	COLOR TEMPERATURE Select the color temperature for white balance. There are four settings to choose from: (1) 6500D - sets the white balance to 6500D; (2) LOW - sets to 5500K; (3) MID - sets to 9300K; (4) HIGH - sets to 13800K
•	CLOCK PHASE Use clock phase to fine-tune the monitor to perfectly synchronize the video's signal source.
ЯК	SCREEN WIDTH Use to change various screen width modes. There are two selections available: 16:9 and 4:3.
\$	V-SIZE Use to change vertical size of the picture. Increase to enlarge the picture size in the vertical direction. Decrease to reduce the picture size in the vertical direction.
	V-CENTER Use to change vertical position of the picture. Increase to shift the picture up. Decrease to shift the picture down.
\longleftrightarrow	H-WIDTH Use to change horizontal size of the picture. Increase to enlarge the picture size in the horizontal direction. Decrease to reduce the picture size in the horizontal direction.
	H-POSITION Use to change horizontal position of the picture. Increase to shift the picture to the right. Decrease to shift the picturn to the left.

Notes:

1. Each of the (4) color temperature settings may not be exactly equal to the temperature setting as defined; however, it will be approximately close.

Troubleshoot Common Conditions

The following list represents possible anomalies that you may encounter and methods for remedy. Please refer to this checklist prior to contacting a service representative.

Symptom	Possible Cause	Remedy			
No picture is displayed	 The power cord is disconnected. The main power switch on the back of the monitor is not switched on. The selected input has no connection. The monitor is in standby mode in RGB mode. 	 Plug in the power cord. Make sure the power switch is switched on. Connect a signal connection to the monitor. Press any key on your keyboard. 			
Interference displayed on the monitor	 Caused by surrounding electrical appliances, cars/motorcycles or fluores- cent lights. 	 Move the monitor to another location to see if the interference is reduced. 			
Color is abnormal	 The signal cable is not connected properly. 	 Make sure that the signal cable is attached firmly to the back of the monitor. 			
Picture is distorted with abnormal patterns	 The signal cable is not connected properly. The input signal is beyond the capabilities of the monitor. 	 Make sure that the signal cable is attached firmly. Check the signal source to see if it is beyond the range of the monitor. Please verify its specifications with this monitor's specification section. 			
Display image doesn't fill up the full size of the screen	1. If under RGB mode, the H-Size and V-Size is incorrectly set.	 Use H-Size and V-Size to adjust the size of the video. 			
Some picture elements do not light up	 Some pixels of the plasma display may not turn on. 	1. This monitor is manufactured using an extremely high level of precision technology; however, sometimes some pixels of the monitor may not display. This is not a malfuction. Please see the enclosed warranty card for more information.			
After-Images can still be seen on the monitor after the monitor is powered off. (Examples of still pictures include logos, video games, computer images, and images displayed in 4:3 normal mode)	 A still picture is displayed for an over extended period of time. 	 Do not allow a still image to be displayed for an extended period of time as this can cause a permanent after-image to remain on the monitor. 			

Display Panel

Screen size	Diagonal 42 inch
Aspect ratio	16:9 wide
Number of pixels	852(Horizontal, RGB Trio) X 480(Vertical)pixels
Pixel Pitch	1.08mm X 1.08mm
Luminance	500cd/m²,at APL13%

Power Source

Input voltage	90 ~ 240 Vac , 50 / 60 Hz
Input current	3.3A
Inrush current	60 A p-p/20ms Max.
Power consumption	340±10% Watts (at 110Vac/color bar pattern)
Stand-by & DPMS	5 Watts Max. (at 110Vac)

Connection

Connector Types	9 pin D-SUB for RS232
	15 pin D-SUB for RGB

24 pin DVI

RGB Signal

Туре	
Polarity	
Amplitude	
Frequency	

TTL Positive or Negative RGB: 0.7Vp-p H: support to 31K~91KHz V: support to 50~85Hz

DVI Signal

Type Polarity Frequency Digital Positive or Negative H: support to 31K~63KHz V: support to 50~85Hz

Pin Assignments For D-SUB Connector (In / Loop Out)

Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
RED	6	RED GND	11	GND
GREEN	7	GREEN GND	12	SDA
BLUE	8	BLUE GND	13	H-SYNC
GND	9	NC	14	V-SYNC
GND	10	GND	15	SCL
	Signal Assignment RED GREEN BLUE GND GND	Signal AssignmentPinRED6GREEN7BLUE8GND9GND10	Signal AssignmentPinSignal AssignmentRED6RED GNDGREEN7GREEN GNDBLUE8BLUE GNDGND9NCGND10GND	Signal AssignmentPinSignal AssignmentPinRED6RED GND11GREEN7GREEN GND12BLUE8BLUE GND13GND9NC14GND10GND15

Pin Assignments For 24 Pin DVI Connector(Digital Only)

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	TMDS Data 2-	9	TMDS Data 1-	17	TMDS Data 0-
2	TMDS Data 2+	10	TMDS Data 1+	18	TMDS Data 0+
3	TMDS Data 2/4 Shield	11	TMDS Data 1/3 Shield	19	TMDS Data 0/5 Shield
4	TMDS Data 4-	12	TMDS Data 3-	20	TMDS Data 5-
5	TMDS Data 4+	13	TMDS Data 3+	21	TMDS Data 5+
6	DDC Clock	14	+5V Power	22	TMDS Clock Shield
7	DDC Data	15	Ground (For +5V)	23	TMDS Clock +
8	No Connect	16	Hot Plug Detect	24	TMDS Clock -

RGB/DVI For VESA Standard

		Refresh	Horizontal	Vertical	V-Sync	H-Sync	
Mode		Rate	Frequency	Frequency	Polariy	Polarity	Dot rate
No.	Resolution	(Hz)	(K Hz)	(Hz)	(TTL)	(TTL)	(MHz)
1	640(VGA)×480	60	31.5	59.94	-	-	25.175
2	640(VGA)×480	72	37.9	72.81	-	-	31.500
3	640(VGA)×480	75	37.5	75	-	-	31.500
4	640(VGA)×480	85	43.3	85.01	-	-	36.000
5	800(SVGA)×600	56	35.1	56.25	+	+	36.000
6	800(SVGA)×600	60	37.9	60.317	+	+	40.000
7	800(SVGA)×600	72	48.1	72.19	+	+	50.000
8	800(SVGA)×600	75	46.9	75	+	+	49.500
9	800(SVGA)×600	85	53.7	85.06	+	+	56.250
10	1024(XGA)×768	60	48.4	60.01	-	-	65.000
11	1024(XGA)×768	70	56.5	70.07	-	-	75.000
12	1024(XGA)×768	75	60.0	75.03	+	+	78.750
13	1024(XGA)×768	85	68.7	84.99	+	+	94.500
14	1280(SXGA)×1024	60	63.98	60.02	+	+	108.00
15*	1280(SXGA)×1024	75	79.98	75.03	+	+	135.00
16*	1280(SXGA)×1024	85	91.15	85.02	+	+	157.50
18	720(DOS)×400	70	31.46	70.08	+	-	28.320
19	640(VGA)×480	50	31.5	50	-	-	25.175
20*	1280(HDTV)×720P	60	45.15	60	-	-	74.250
21*	1920(HDTV)×1080I	60(l)	33.78	60	-	-	74.250
22	640(VGA)×350	70	31.50	70	-	-	25.175
23	852(WGA)×480	60	31.72	60.41	-	-	30.00
* These	modes are not supp	orted in I	DVI mode				

modes are not supported in DVI mode.

RGB/DVI For Apple Standard

		Refresh	Horizontal	Vertical	V-Sync	H-Sync	
Mode		Rate	Resolution	Resolution	Polarity	Polarity	Dot rate
No.	Resolution	(Hz)	(K Hz)	(Hz)	(TTL)	(TTL)	(MHz)
24	640×480	67	35.00	66.67	-	-	30.240
25	832 x 624	75	49.73	74.55	-	-	57.283
26	1152 x 870	75	68.68	75.06	-	-	100.000

Maximum ResolutionUp to 1280 x 1024

Dimensions	Without/Sta	and With/Stand
Width	1040mm	1040mm
Height	648 mm	690mm
Depth	95mm	287.5 mm

Package Dimensions

1230 mm
960 mm
470 mm

Weight

68.8lbs/31.2 Kgs (w/o stand) 77.2lbs/ 35Kgs (w/ stand) 101.4lbs/46 Kgs

Operating

Net weight

Gross weight

Temperature	0~40°C (32~104°F)
Relative humidity	20~80%
Pressure	800~1114hpa

Non-Operating

Temperature	-5~50°C
Relative humidity	20~90%
Pressure	600~1114hpa
Vibration	X/Y/Z, 0.5G/10~55Hz(sweep), 10 minutes

Acoustics

(IHF A-weighted 1meter) 40dB Max.

Reliability Requirement

The MTBF is 20000hrs under operation 25±5° C (Half luminosity, motion picture)

Emission Requirement

The unit meet the EMI limits in all screen modes as qualified by FCC class A part 15.

Power Management	
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Mode	H-sync	V-sync	Video	Power dissipation
Normal	Pulse	Pulse	Active	Normal power
Stand-by	No pulse	No pulse	No video	Poweroff
Power saving	Pulse No pulse	No pulse Pulse	blanked	Less than 5 watts

This Plasma display is Energy star compliant when used with a computer equipped with DPMS.

Preset Timing Chart



- Item Description:
- A Total time
- B Active display area including borders
- C Active display area excluding borders
- D Left/Top border
- E Right/bottom border
- F Blanking time
- G Front porch
- H Sync-width
- I Back porch

Mode No	1	2	3	4	5	6	7	8	9	
H Resolution	640	640	640	640	800	800	800	800	800	
V Resolution	480	480	480	480	600	600	600	600	600	
Refresh Rate	60	72	75	85	56	60	72	75	85	Hz
Pixel	25.175	31.5	31.5	36	36	40	50	49.5	56.25	MHz
Horizontal visible	640	640	640	640	800	800	800	800	800	Dots
Horizontal total	800	832	840	832	1024	1056	1040	1056	1048	Dots
Horizontal front porch	24	32	16	56	24	40	56	16	32	Dots
Horizontal sync	96	40	64	56	72	128	120	80	64	Dots
Horizontal back porch	48	128	120	80	128	88	64	160	152	Dots
Horiz blanking time	160	192	200	192	224	256	240	256	248	Dots
Vertical visible	480	480	480	480	600	600	600	600	600	Lines
Vertical total	525	520	500	509	625	628	666	625	631	Lines
Vertical front porch	18	17	1	1	1	1	37	1	1	Lines
Vertical sync	2	3	3	3	2	4	6	3	3	Lines
Vertical back porch	33	28	16	25	22	23	23	21	27	Lines
Vertical blanking time	45	40	20	29	25	28	66	25	31	Lines
Horizontal frequency	31.469	37.9	37.5	43.3	35.1	37.9	48.1	46.9	53.7	KHz
Vertical frequency	59.94	72.81	75	85.01	56.25	60.317	72.19	75	85.06	Hz
Vertical sync polarity	-	-	-	-	+	+	+	+	+	TTL
Horiz sync polarity	-	-	-	-	+	+	+	+	+	TTL
Dot rate	25.175	31.5	31.5	36	36	40	50	49.5	56.25	MHz

Mode No	10	11	12	13	14	15	16	18	19	
H Resolution	1024	1024	1024	1024	1280	1280	1280	720	640	
V Resolution	768	768	768	768	1024	1024	1024	400	480	
Refresh Rate	60	70	75	85	60	75	85	70	50	Hz
Pixel	65	75	78.75	94.5	108	135	157.5	28.320	25.175	MHz
Horizontal visible	1024	1024	1024	1024	1280	1280	1280	720	640	Dots
Horizontal total	1344	1328	1312	1376	1688	1688	1728	900	800	Dots
Horizontal front porch	24	24	16	48	48	16	64	18	16	Dots
Horizontal sync	136	136	96	96	112	144	160	108	96	Dots
Horizontal back porch	160	1//	176	208	2/18	2/18	224	54	<u>18</u>	Dote
Horiz blanking time	320	304	288	200	240 108	240 108	778 778	180	-0 160	Dote
Vortical visible	760	760	200	760	400	400	440	100	100	Linco
	100	100	700	100	1024	1024	1024	400	400	Lines
	806	806	400	808	1066	1000	1072	449	629	Lines
vertical front porch	3	3	1	1	1	1	1	12	62	Lines
Vertical sync	6	6	3	3	3	3	3	2	2	Lines
Vertical back porch	29	29	28	36	38	38	44	35	85	Lines
Vertical blanking time	38	38	32	40	42	42	48	49	149	Lines
Horizontal frequency	48.4	56.5	60	68.7	63.98	79.98	91.15	31.46	31.5	KHz
Vertical frequency	60.01	70.07	75.03	84.99	60.02	75.03	85.02	70.08	50	Hz
Vertical sync polarity	-	-	+	+	+	+	+	+	-	TTL
Horiz sync polarity	-	-	+	+	+	+	+	-	-	TTL
Dot rate	65	75	78.75	94.5	108	135	157.5	28.32	25.175	MHz
Mode No	20	21	22	23	24	25	26			
Mode No H Resolution	20 1280	21 1920	22 640	23 852	24 640	25 832	26 1152			
Mode No H Resolution V Resolution	20 1280 720P	21 1920 1080i	22 640 350	23 852 480	24 640 480	25 832 624	26 1152 870			
Mode No H Resolution V Resolution Refresh Rate	20 1280 720P 60	21 1920 1080i 60i	22 640 350 70	23 852 480 60	24 640 480 67	25 832 624 75	26 1152 870 75			Hz
Mode No H Resolution V Resolution Refresh Rate Pixel	20 1280 720P 60 74.250	21 1920 1080i 60i 74.25	22 640 350 70 25.175	23 852 480 60 30	24 640 480 67 30.240	25 832 624 75 57,283	26 1152 870 75 100.000)		Hz MHz
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible	20 1280 720P 60 74.250 1266	21 1920 1080i 60i 74.25 1901	22 640 350 70 25.175 640	23 852 480 60 30 852	24 640 480 67 30.240 640	25 832 624 75 57.283 832	26 1152 870 75 100.000 1152)		Hz MHz Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total	20 1280 720P 60 74.250 1266 1650	21 1920 1080i 60i 74.25 1901 2201	22 640 350 70 25.175 640 800	23 852 480 60 30 852 955	24 640 480 67 30.240 640 864	25 832 624 75 57.283 832 1152	26 1152 870 75 100.000 1152 1456)		Hz MHz Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch	20 1280 720P 60 74.250 1266 1650 42	21 1920 1080i 60i 74.25 1901 2201 68	22 640 350 70 25.175 640 800 16	23 852 480 60 30 852 955 19	24 640 480 67 30.240 640 864 64	25 832 624 75 57.283 832 1152 32	26 1152 870 75 100.000 1152 1456 32)		Hz MHz Dots Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync	20 1280 720P 60 74.250 1266 1650 42 63	21 1920 1080i 60i 74.25 1901 2201 68 63	22 640 350 70 25.175 640 800 16 96	23 852 480 60 30 852 955 19 48	24 640 480 67 30.240 640 864 64 64	25 832 624 75 57.283 832 1152 32 64	26 1152 870 75 100.000 1152 1456 32 128)		Hz MHz Dots Dots Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch	20 1280 720P 60 74.250 1266 1650 42 63 279	21 1920 1080i 60i 74.25 1901 2201 68 63 169	22 640 350 70 25.175 640 800 16 96 48	23 852 480 60 30 852 955 19 48 36	24 640 480 67 30.240 640 864 64 64 90	25 832 624 75 57.283 832 1152 32 64 224	26 1152 870 75 100.000 1152 1456 32 128 144)		Hz MHz Dots Dots Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time	20 1280 720P 60 74.250 1266 1650 42 63 279 384	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300	22 640 350 70 25.175 640 800 16 96 48 160	23 852 480 60 30 852 955 19 48 36 103	24 640 480 67 30.240 640 864 64 64 90 224	25 832 624 75 57.283 832 1152 32 64 224 320	26 1152 870 75 100.000 1152 1456 32 128 144 304)		Hz MHz Dots Dots Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time	20 1280 720P 60 74.250 1266 1650 42 63 279 384 697	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518	22 640 350 70 25.175 640 800 16 96 48 160 250	23 852 480 60 30 852 955 19 48 36 103 480	24 640 480 67 30.240 640 864 64 64 64 90 224 480	25 832 624 75 57.283 832 1152 32 64 224 320 624	26 1152 870 75 100.000 1152 1456 32 128 144 304 970)		Hz MHz Dots Dots Dots Dots Dots
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562 5	22 640 350 70 25.175 640 800 16 96 48 160 350 440	23 852 480 60 30 852 955 19 48 36 103 480 525	24 640 480 67 30.240 640 864 64 64 64 90 224 480 525	25 832 624 75 57.283 832 1152 32 64 224 320 624 667	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915)		Hz MHz Dots Dots Dots Dots Dots Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5	22 640 350 70 25.175 640 800 16 96 48 160 350 449 27	23 852 480 60 30 852 955 19 48 36 103 480 525	24 640 480 67 30.240 640 864 64 64 90 224 480 525 2	25 832 624 75 57.283 832 1152 32 64 224 320 624 667	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 2)		Hz MHz Dots Dots Dots Dots Dots Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 2)		Hz MHz Dots Dots Dots Dots Dots Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 50	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 2	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 20)		Hz MHz Dots Dots Dots Dots Dots Lines Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical sync	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 39	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 39)		Hz MHz Dots Dots Dots Dots Lines Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical back porch Vertical blanking time	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56 63	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38 44.5	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60 99	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33 45	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 39 45	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39 43	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 39 45)		Hz MHz Dots Dots Dots Dots Lines Lines Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical back porch Vertical back porch	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56 63 45.15	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38 44.5 33.78	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60 99 31.50	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33 45 31.72	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 39 45 35.00	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39 43 49.73	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 39 45 68.68)		Hz MHz Dots Dots Dots Dots Lines Lines Lines Lines Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal sync Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical sync Vertical back porch Vertical blanking time Horizontal frequency	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56 63 45.15 60	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38 44.5 33.78 60	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60 99 31.50 70	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33 45 31.72 60.41	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 39 45 35.00 66.67	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39 43 49.73 74.55	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 915 3 3 39 45 68.68 75.06)		Hz MHz Dots Dots Dots Dots Lines Lines Lines Lines Lines Lines Lines Lines Lines
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical back porch Vertical blanking time Horizontal frequency Vertical frequency	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56 63 45.15 60 -	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38 44.5 33.78 60 -	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60 99 31.50 70 -	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33 45 31.72 60.41 -	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 99 45 35.00 66.67 -	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39 43 49.73 74.55 -	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 39 45 68.68 75.06 -)		Hz MHz Dots Dots Dots Dots Lines Lines Lines Lines KHz Hz TTL
Mode No H Resolution V Resolution Refresh Rate Pixel Horizontal visible Horizontal total Horizontal front porch Horizontal back porch Horiz blanking time Vertical visible Vertical total Vertical front porch Vertical sync Vertical back porch Vertical blanking time Horizontal frequency Vertical frequency Vertical sync polarity Horiz sync polarity	20 1280 720P 60 74.250 1266 1650 42 63 279 384 687 750 1 6 56 63 45.15 60 - -	21 1920 1080i 60i 74.25 1901 2201 68 63 169 300 518 562.5 0.5 6 38 44.5 33.78 60 -	22 640 350 70 25.175 640 800 16 96 48 160 350 449 37 2 60 99 31.50 70 - -	23 852 480 60 30 852 955 19 48 36 103 480 525 10 2 33 45 31.72 60.41 -	24 640 480 67 30.240 640 864 64 64 90 224 480 525 3 3 39 45 35.00 66.67 -	25 832 624 75 57.283 832 1152 32 64 224 320 624 667 1 3 39 43 49.73 74.55 -	26 1152 870 75 100.000 1152 1456 32 128 144 304 870 915 3 3 39 45 68.68 75.06 - -)		Hz MHz Dots Dots Dots Dots Lines Lines Lines Lines Lines KHz Hz TTL TTL

WALL MOUNT INSTALLATION (OPTIONAL)

Package Content

Left Wall Mounting Angle Module



Right Wall Mounting Angle Module

Horizontal Support



Screws for Fix Angle x 8

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Screws for Wall Mounting x 8



WALL MOUNT INSTALLATION (OPTIONAL)

Set up Steps

Step 1. Set up Fix Angles to Left and Right Wall Mounting Angle Module.



Step 2.

Install the Wall Mount Bracket onto the wall.

Note:

The screws in this package is for mounting onto a cement wall. Different kind of walls (like a wooden wall) need different type screws. Please consult with authorized dealers' qualified installer.



You can adjust the mounting direction and inclination angle (0, 5, 10, 15 degrees) by adjusting the screws position on the Wall Mounting Angle Module.



WALL MOUNT INSTALLATION (OPTIONAL)

Step 3.

Remove the pedestal table-top stand on the unit, install the unit onto the wall mount bracket.



Note:

- Wall mount bracket is an optional accessory, please contact with authorized dealers for purchasing.
- This type of equipment is to be installed by the dealer's qualified installer, please contact with authouized dealer for installation.
- The force for mounting wall should be 120 kg or above.