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Usage Notice

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's guide to maximize the life of your unit.

- **Marning-** Do not look into the projector's lens when the lamp is on. The bright light may hurt your eyes.
- ★ Warning- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.
- ★ Warning- Please do not open or disassemble the product as this may cause electric shock.
- <u>^</u>Warning- When changing the lamp, please allow unit to cool down, and follow all changing instructions.
- ★ Warning- This product will detect the life of the lamp itself. Please be sure to change the lamp when it shows warning messages.
- ★ Warning- Reset the "Lamp Reset" function from the On Screen Display "Lamp Setting" menu after replacing the lamp module (refer to page 25).
- ★ Warning- When switching the projector off, please ensure the projector completes its cooling cycle before disconnecting power.
- ↑ Warning- Turn on the projector first and then the signal sources.
- <u>∧</u> Warning- Do not use lens cap when projector is in operation.
- Warning- When the lamp reaches the end of its life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under "Replacing the Lamp".

Usage Notice

Do:

- * Turn off the product before cleaning.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not being used for a long period of time.

Don't:

- Block the slots and openings on the unit provided for ventilation.
- * Use abrasive cleaners, waxes or solvents to clean the unit.
- Use under the following conditions:
 - In extremely hot, cold or humid environments.
 - In areas susceptible to excessive dust and dirt.
 - Near any appliance that generates a strong magnetic field.
 - Place in direct sunlight.

Introduction

Product Features

This product is an XGA single chip 0.7'' DLPTM projector. Outstanding features include:

- ◆ True XGA, 1024 x 768 addressable pixels
- ◆ Single chip DLP[™] technology
- ◆ NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible (480i/p, 576i/p, 720p, 1080i)
- Multi-Auto functions: Auto detection, Auto image and Auto saving the adjustments
- Full function remote with mouse control and laser pointer
- User friendly multilingual on screen display menu
- Advanced digital keystone correction and high quality full screen image re-scaling
- User friendly control panel
- SXGA+, SXGA compression and VGA, SVGA re-sizing
- Mac compatible

Introduction

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.



Projector with lens cap



Power Cord 1.8m



VGA Cable 1.8m



Composite Video Cable 1.8m



SCART RGB/S-Video Adaptor (For European Use Only)



Remote Control with Mouse Function & Laser Pointer



2 x Battery



Carrying Case



Due to the difference in applications for each country, some regions may have different accessories.

Documents:

- **✓** User's Guide
- Quick Start Card
- ✓ Warranty Card

ntroductio

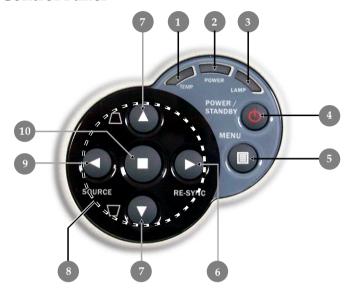
Product Overview



- Control Panel 1.
- Zoom Lever
- 3. Focus Ring
- 4. Zoom Lens
- 5. Lens Cap
- 6. Elevator Foot
- 7. Elevator Button
- IR Receivers
- **Connection Ports**
- 10. Power Socket

Introduction

Control Panel



- 1. Temp Indicator LED
- 2. Power Indicator LED
- 3. Lamp Indicator LED
- 4. Power/Standby
- 5. Menu (On/Off)
- 6. Re-Sync
- 7. Keystone Correction
- 8. Four Directional Select Keys
- 9. Source
- 10. Enter

ntroduction

Connection Ports



- 1. IR Receiver
- 2. Power Socket
- 3. PC Analog signal/SCART RGB/HDTV/Component Video Input Connector
- 4. Composite Video Input Connector
- 5. S-Video Input Connector
- 6. USB Input Connector
- KensingtonTM Lock Port

Introduction

Remote Control with Mouse Function & Laser Pointer



Installation

Connecting the Projector





Due to the difference in applications for each country, some regions may have different accessories.

1	Power Cord
	VGA Cable
3	
4	SCART RGB/S-Video Adaptor (For European Use Only)
6	
7	D-15 to RCA Adapter for YPbPr (Optional Accessory)

To ensure the projector works well with your computer, please set the display mode of your graphic card less than or equal to 1024 X 768 resolution. Make sure the timing of the display mode is compatible with the projector. Refer to the "Compatibility Modes" section on page 31.

Powering On/Off the Projector

Powering On the Projector

- **1.** Remove the lens cap. **0**
- **2.** Ensure that the power cord and signal cable are securely connected. The Power LED will turn **Orange**.
- 3. Turn on the lamp by pressing "Power/Standby" button on the control panel. 2
 - The startup screen will display for 10 seconds and the **Power LED** will turn **green**.
- **4.** Turn on your source (computer, notebook, video player, etc.). The projector will detect your source automatically.
- If you connect multiple sources at the same time, use the "Source" button on the control panel or remote control to switch.





Turn on the projector first and then the signal sources.

Installation

Powering Off the Projector

1. Press the "Power/Standby" button to turn off the projector lamp, you will see a message as below on the on-screen display.

Wait 1 minutes before you can switch on again.

Press Power key again to confirm.

Press Enter key to remove this warning.

- **2.** Press the "Power/Standby" button again to confirm. Otherwise the message will disappear after **25** seconds.
- **3.** The cooling fans continue to operate for about 120 seconds for cooling cycle and the Power LED will flash orange. When the light **stops** flashing, the projector has entered standby mode.
 - If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered standby mode. Once in standby mode, simply press "Power/Standby" button to restart the projector.
- **4.** Disconnect the power cord from the electrical outlet and the projector.
- **5.** Do not turn on the projector immediately following a power off procedure.

Warning Indicator

- When the "TEMP" indicator turns red, it indicates the projector has overheated. The projector will automatically shut itself down.
- * When the "LAMP" indicator flashes **red** (**0.5 second intervals**), it indicates a problem with the lamp. Turn off the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center.
- When the "LAMP" indicator flashes red (1 second intervals), it indicates the fan failed. Stop using the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center.

Installation

Adjusting the Projected Image

Adjusting the Projector Image Height

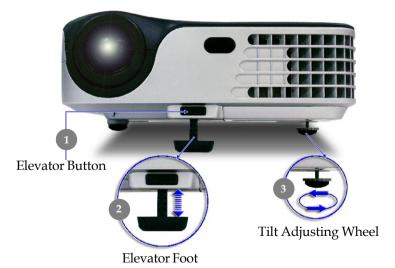
The projector is equipped with an elevator foot for adjusting the image height.

To raise the image:

- **1.** Press the elevator button **0**.
- 2. Raise the image to the desired height angle ②, then release the button to lock the elevator foot into position.
- 3. Use 3 to fine-tune the display angle.

To lower the image:

- 1. Press the elevator button.
- **2.** Lower the image, then release the button to lock the elevator foot into position.
- 3. Use **3** to fine-tune the display angle.

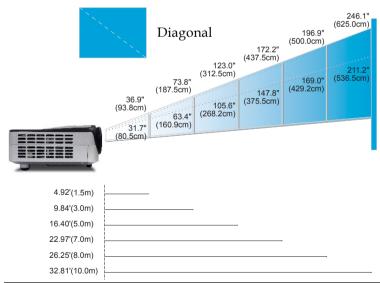


Adjusting the Projector Zoom/Focus

You may turn the zoom lever to zoom in or out. To focus the image, rotate the focus ring until the image is clear. The projector will focus at distances from 4.9 to 32.8 feet (1.5 to 10.0 meters).



Adjusting Projection Image Size



Screen	Max.	36.9"(93.8cm)	73.8"(187.5cm)	123.0"(312.5cm)	172.2"(437.5cm)	196.9"(500.0cm)	246.1"(625.0cm)
(Diagonal)	Min.	31.7"(80.5cm)	63.4"(160.9cm)	105.6"(268.2cm)	147.8"(375.5cm)	169.0"(429.2cm)	211.2"(536.5cm)
Screen	Max.(WxH)	29.52" x 22.14" (75.0 x 56.3cm)	59.04" x 44.28" (150.0 x 112.5cm)	98.40" x 73.80" (250.0 x 187.5cm)	137.76" x 103.32" (350.0 x 262.5cm)	157.52" x 118.14" (400.0 x 300.0cm)	196.88" x 147.66" (500.0 x 375.0cm)
Size	Min.(WxH)	25.36" x 19.02" (64.4 x 48.3cm)	50.72" x 38.04" (128.7 x 96.5cm)	84.48" x 63.36" (214.6 x 160.9cm)	118.24" x 88.68" (300.4 x 225.3cm)	135.20" x 101.40" (343.4 x 257.5cm)	168.96" x 126.72" (429.2 x 321.9cm)
Dista	ance	4.92'(1.5m)	9.84'(3.0m)	16.40'(5.0m)	22.97'(7.0m)	26.25'(8.0m)	32.81'(10.0m)

^{*}This graph is for user's reference only.

Control Panel & Remote Control

There are two ways for you to control the functions: Remote Control and Control Panel.

Control Panel

Remote Control





Using the Control Panel

Power/Standby (b)

Refer to the "Power On/Off the Projector" section on pages 11-12.

Source **4**

▶ Press "Source" to choose RGB, Component-p, Component-i, S-Video, Composite Video and HDTV sources.

Menu 🗐

Press "Menu" to launch the on screen display (OSD) menu. To exit OSD, press "Menu" again.

Keystone ▲ △ / ▼ □

▶ Adjusts image distortion caused by tilting the projector (±8 degrees).

Four Directional Select Keys

▶ Use ▲ ▼ ◀ ▶ to select items or make adjustments to your selection.

Enter

▶ Confirm your selection of items.

Re-Sync ▶

▶ Automatically synchronizes the projector to the input source.

Using the Remote Control

Power

Refer to the "Power On/Off the Projector" section on pages 11-12.

Source

Press "Source" to choose RGB, Component-p, Component-i, S-Video, Composite Video and HDTV sources.

Auto

▶ Automatically synchronizes the projector to the input source.

Keystone

▶ Adjusts image distortion caused by tilting the projector (±8 degrees). Press "Keystone" button, then use ◀ ▶ to adjust the setting.

Hide

"Hide" immediately turns the screen black. Press "Hide" again to restore the displayed image.

Laser Button

Aim the remote at the viewing screen, press and hold this button to activate the laser pointer.

Freeze

▶ Press "Freeze" to pause the screen image.

Mouse/Mouse Right Click/Mouse Left Click (*)

▶ These functions are the same as a mouse of PC or Mac.

Four Directional Select Keys

Use ▲ ▼ ◀ ▶ to select items or make adjustments to your selection.

Enter

Confirm your selection of items.

Menu

Press "Menu" to launch the on screen display menu. To exit OSD, press "Menu" again.





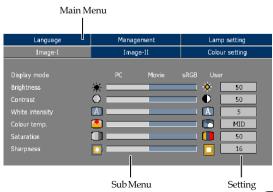
Remark: "" this is computer mode only. And these functions are only available when the projector is connected to a computer via an USB cable.

On Screen Display Menus

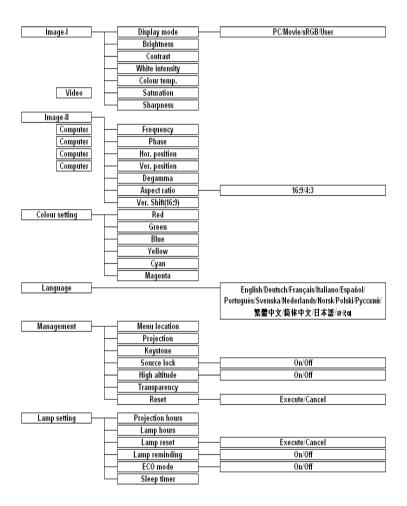
The Projector has multilingual On Screen Display menus that allow you to make image adjustments and change a variety of settings. The projector will automatically detect the source.

How to operate

- **1.** To open the OSD menu, press "Menu "on the Remote Control or Control Panel.
- Use ▲ ▼ keys to select the desired item and adjust the settings by ◀ ▶ key.
- **4.** Select the next item to be adjusted in the sub menu and adjust as described above.
- **5.** Press "Menu " to confirm, and the screen will return to the main menu.
- **6.** To exit, press "Menu "again. The OSD menu will close and the projector will automatically save the new settings.



Menu Tree





Language

Language

Choose the multilingual OSD menu . Use the $\, \blacktriangle \,$ or $\, \blacktriangledown \,$ key to select your preferred language.

Press "Enter" to finalize the selection.



Colour Setting

Colour Setting

Adjust the Red, Green, Blue, Yellow, Cyan and Magenta colors for advanced adjustment of the individual colors.



Image-I

Display Mode

There are many factory presets optimized for various types of images.

- ▶ PC: For computer or notebook.
- Movie: For home theater.
- ▶ sRGB: For standard color.
- User: Memorize user's settings.

Brightness

Adjust the brightness of the image.

- ▶ Press the ▶ to lighten the image.

Contrast

The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

- ▶ Press the to decrease the contrast.
- ▶ Press the ▶ to increase the contrast.

White Intensity

Use the white peaking control to set the white peaking level of DMD chip. 0 stands for minimal peaking, and 10 stands for maximum peaking. If you prefer a stronger image, adjust towards the maximum setting. For a smooth and more natural image, adjust towards the minimum setting.

Color Temp.

Adjust the color temperature. At higher temperature, the screen looks colder; at lower temperature, the screen looks warmer.



"Saturation" function is not supported under computer mode.

Saturation

Adjusts a video image from black and white to fully saturated color.

- ▶ Press the to decrease the amount of color in the image.
- ▶ Press the ▶ to increase the amount of color in the image.

Sharpness

Adjusts the sharpness of the image.

- ▶ Press the ◀ to decrease the sharpness.
- ▶ Press the ▶ to increase the sharpness.

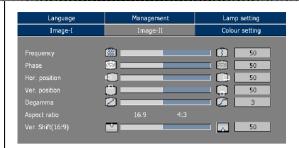


Image-II

Frequency

"Frequency" changes the display data frequency to match the frequency of your computer's graphic card. If you experience a vertical flickering bar, use this function to make an adjustment.

Phase

"Phase" synchronizes the signal timing of the display with the graphic card. If you experience an unstable or flickering image, use this function to correct it.

Hor. Position (Horizontal Position)

- ▶ Press the ◀ to move the image left.
- ▶ Press the ▶ to move the image right.

Ver. Position (Vertical Position)

- ▶ Press the to move the image down.
- ▶ Press the ▶ to move the image up.

Degamma

This allows you to choose a degamma table that has been finetuned to bring out the best image quality for the input.

Aspect Ratio

Use this function to choose your desired aspect ratio.

- ▶ 4:3 : The input source will be scaled to fit the projection screen.
- ▶ 16:9: The input source will be scaled to fit the width of the screen.

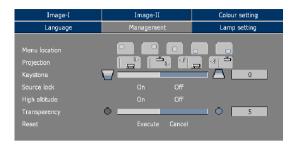
Ver. Shift (16:9)

Adjust the image position to up or down, when you select the aspect ratio to 16:9.

- ▶ Press the to move the image down.
- ▶ Press the ▶ to move the image up.



*"Frequency/Phase/ Hor. Position/Ver. position" function is not supported under video mode.



Management

Menu Location

Choose the menu location on the display screen.

Projection

Front-Desktop

The factory default setting.

▶ [Rear-Desktop

When you select this function, the projector reverses the image so you can project behind a translucent screen.

Front-Ceiling

When you select this function, the projector turns the image upside down for ceiling-mounted projection.

▶ 🗐 🖹 Rear-Ceiling

When you select this function, the projector reverses and turns the image upside down at same time. You can project from behind a translucent screen with ceiling mounted projection.

Keystone

Correct image distortion caused by tilting the projector vertically.

Source Lock

When this function is turned off, the projector will search for other signals if the current input signal is lost. When this function is turned on, it will search specified connection port.

High Altitude

Choose "On" to turn on High Altitude mode. Operates the fans at full speed continuously to allow for proper high altitude cooling of the projector.

Translucence

Choose the menu transparency on the display screen.

Reset

Return the adjustments and settings to the factory default values.

- ▶ Execute: Returns the settings for all menus to factory default values.
- ▶ Cancel: Cancel the revised settings



Lamp Setting

Projection Hours

Display the projection time.

Lamp Hours

Display the cumulative lamp operating time.

Lamp Reset

Reset the lamp life hour after replacing a new lamp.

Lamp Reminding

Choose this function to show or to hide the warning message when the changing lamp message is displayed. The message will show up 30 hours before end of life.

ECO Mode

Choose "On" to dim the projector lamp which will lower power consumption and extend the lamp life by up to 130%. Choose "Off" to return to normal mode.

Sleep Timer

Sets the interval of power-off of the system, if there is no signal input. (In minutes)

Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local reseller or service center.

Problem: No image appears on screen.

- Ensure all the cables and power connections are correctly and securely connected as described in the "Installation" section.
- Ensure the pins of connectors are not crooked or broken.
- ▶ Check if the projection lamp has been securely installed. Please refer to the "Replacing the lamp" section.
- Make sure you have removed the lens cap and the projector is switched on.
- Ensure that the "Hide" feature is not turned on.

Problem: Partial, scrolling or incorrectly displayed image.

- Press "Auto" on the Remote Control or press "Re-sync" on the Control Panel.
- If you are using a PC:

For Windows 3.x:

- **1.** In the Windows Program Manager, double click the "Windows Setup" icon in the Main group.
- 2. Verify that your display resolution setting is less than or equal to 1280×1024 .

For Windows 95, 98, 2000, XP:

- **1.** From the "My Computer" icon, open the "Control Panel" folder, and double click the "Display" icon.
- 2. Select the "Settings" tab
- 3. Click on the "Advanced Properties" button.

If the projector is still not projecting the whole image, you will also need to change the monitor display you are using. Refer to the following steps.

- 4. Verify the resolution setting is less than or equal to 1280×1024 resolution.
- 5. Select the "Change" button under the "Monitor" tab.
- **6.** Click on "Show all devices." Next, select "Standard monitor types" under the SP box; choose the resolution mode you need under the "Models" box.
- ▶ If you are using a Notebook:
 - First, follow the steps above to adjust resolution of the computer.
 - **2.** Press the toggle output settings. example:[Fn]+[F4]

Compaq=> Dell =>	[Fn]+[F4] [Fn]+[F8]	NEC=> [Fn]+[F3] Toshiba => [Fn]+[F5]
Gateway=>	[Fn]+[F4]	Mac Apple:
Hewlett		System Preference>
Packard=>	[Fn]+[F4]	Display>Arrangement>
IBM=>	[Fn]+[F7]	Mirror display

If you experience difficulty changing resolutions or your monitor freezes, restart all equipment including the projector.

Problem: The screen of the Notebook or PowerBook computer is not displaying a presentation.

If you are using a Notebook PC: Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different way to be reactivated. Refer to your computer's documentation for detailed information.

Problem: Image is unstable or flickering

- Use "Phase" to correct it. Refer to page 22.
- ▶ Change the monitor color setting from your computer.

Problem: Image has vertical flickering bar

- ▶ Use "Frequency" to make an adjustment. Refer to page 22.
- Check and reconfigure the display mode of your graphic card to make it compatible with the product.

Problem: Image is out of focus

- Adjusts the Focus Ring on the projector lens. Refer to page 14.
- Make sure the projection screen is between the required distance 4.9 to 32.8 feet (1.5 to 10.0 meters) from the projector.

Problem: The image is stretched when displaying 16:9 DVD.

The projector automatically detects 16:9 DVD and adjusts the aspect ratio by digitizing to full screen with 4:3 default setting.

If the image is still stretched, you will also need to adjust the aspect ratio by referring to the following:

- ▶ Please select 4:3 aspect ratio type on your DVD player if you are playing a 16:9 DVD.
- ▶ If you can't select 4:3 aspect ratio type on your DVD player, please select 4:3 aspect ratio in the on screen menu.

Problem: Image is reversed.

Select "Management-->Projection" from the OSD and adjust the projection direction. See page 23.

Problem: Lamp burns out or makes a popping sound

▶ When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Replacing the Lamp". See page 30.

Problem: LED lighting message

Моссово	Pow	er LED	Tomm I EF	Lamp LED	
Message	Green	Orange	Temp LEL		
Standby State (Input power cord)	0	*	0	0	
Normal Mode	₩	0	0	0	
Warming	Flashing	0	0	0	
Cooling	0	Flashing	0	0	
Error (Lamp failed)	0	0	0	Flashing	
Error (Fan failed)	0	0	0	Flashing	
Error (Over Temp.)	0	0	*	0	
Error (Lamp cover failed)	0	0	0	*	



Problem: Message Reminders

▶ Standby:

Wait 1 minutes before you can switch on again.

Press Power key again to confirm.

Press Enter key to remove this warning.

Replacing the lamp:

Lamp life exceeded

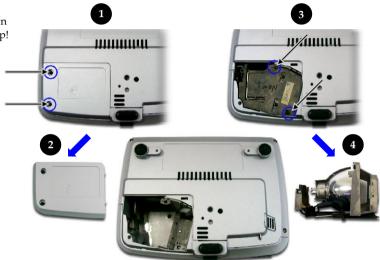
Replacing the lamp

The projector will detect the lamp life itself. It will show you a warning message "Lamp life exceeded" When you see this message, change the lamp as soon as possible.

Make sure the projector has been cooled down for at least 30 minutes before changing the lamp.



Warning: Lamp compartment is hot! Allow it to cool down before changing lamp!





Warning: To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.

Lamp Replacing Procedure:

- **1.** Switch off the power to the projector by pressing the Power button.
- **2.** Allow the projector to cool down at least 30 minutes.
- **3.** Disconnect the power cord.
- **4.** Use a screwdriver to remove the screw from the cover. **0**
- **5.** Push up and remove the cover. **2**
- **6.** Remove the 2 screws from the lamp module.
- 7. Pull out the lamp module. 4

To replace the lamp module, reverse the previous steps.

Compatibility Modes

26.1	D. Le	(ANALOG)		
Mode	Resolution	V.Frequency (Hz)	H.Frequency (kHz)	
VESA VGA	640 x 350	70	31.5	
VESA VGA	640 x 350	85	37.9	
VESA VGA	640 x 400	85	37.9	
VESA VGA	640 x 480	60	31.5	
VESA VGA	640 x 480	72	37.9	
VESA VGA	640 x 480	75	37.5	
VESA VGA	640 x 480	85	43.3	
VESA VGA	720 x 400	70	31.5	
VESA VGA	720 x 400	85	37.9	
SVGA	800 x 600	56	35.2	
SVGA	800 x 600	60	37.9	
SVGA	800 x 600	72	48.1	
SVGA	800 x 600	75	46.9	
SVGA	800 x 600	85	53.7	
VESA XGA	1024 x 768	60	48.4	
VESA XGA	1024 x 768	70	56.5	
VESA XGA	1024 x 768	75	60.0	
VESA XGA	1024 x 768	85	68.7	
* VESA SXGA	1152 x 864	70	63.8	
* VESA SXGA	1152 x 864	75	67.5	
* VESA SXGA	1152 x 864	85	77.1	
* VESA SXGA	1280 x 1024	60	63.98	
* VESA SXGA	1280 x 1024	75	79.98	
* VESA SXGA+	1400 x 1050	60	63.98	
MAC LC 13"	640 x 480	66.66	34.98	
MAC II 13"	640 x 480	66.68	35	
MAC 16"	832 x 624	74.55	49.725	
MAC 19"	1024 x 768	75	60.24	
* MAC	1152 x 870	75.06	68.68	
MAC G4	640 x 480	60	31.35	
i Mac DV	1024 x 768	75	60.0	
* i Mac DV	1152 x 870	75	68.49	
* i Mac DV	1280 x 960	75	75.0	



Remark:

1.> "*"compressed computer image.

2.> The interlaced analog signals are not supported.