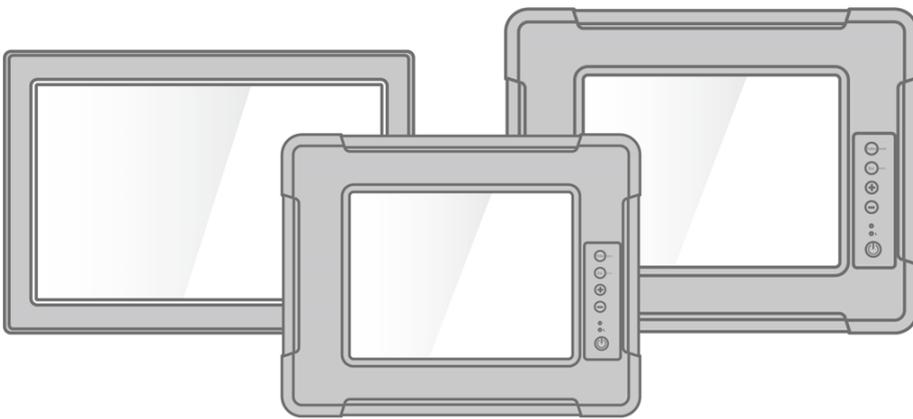




# G-WIN Rugged Vehicle Mount Display

8.4"/ 10.4"/12.1"



## User Manual

V1.0

For more information on this and other Winmate products, please visit our website at:  
[www.winmate.com](http://www.winmate.com)

Document Part Number: 91521111102H

Please read this instructions before operating the device and retain them for future reference.

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## FCC Statement



This device complies with part 15 FCC rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "B" digital device, pursuant to part 15 of the 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 accordance with the instruction manual, may cause harmful interference to radio communications. 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 his own expense.

## European Union



### **Electromagnetic Compatibility Directive (2014/30/EU)**

- EN55024: 2010/ A1: 2015
  - IEC61000-4-2: 2009
  - IEC61000-4-3: 2006+A1: 2007+A2: 2010
  - IEC61000-4-4: 2012
  - IEC61000-4-5: 2014
  - IEC61000-4-6: 2014
  - IEC61000-4-8: 2010
  - IEC61000-4-11: 2004
- EN55032: 2012/AC:2013
- EN61000-3-2:2014
- EN61000-3-3:2013

### **Low Voltage Directive (2014/35/EU)**

- EN 60950-1:2006/A11:2009/A1:2010/A12:2011/ A2:2013

This equipment is in conformity with the requirement of the following EU legislations and harmonized standards. Product also complies with the Council directions.

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## Copyright Notice

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## Trademark Acknowledgement

Brand and product names are trademarks or registered trademarks of their respective owners.

## Disclaimer

Winmate Inc. reserve the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. We assume no responsibility or liability for the use of the described product(s) conveys no license or title under any patent, copyright, or masks work rights to these products, and make no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. Applications that are described in this manual are for illustration purposes only. We make no representation or guarantee that such application will be suitable for the specified use without further testing or modification.



### NOTE:

Some pictures in this guide are samples and can differ from actual product.

## Warranty

Winmate Inc. warranty guarantees that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, we will, at his/her option, repair or replace the defective product at no charge to the customer, provide it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service. If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W14Axxxxxxx means October of year 2014.

## Customer Service

We provide a service guide for any problem by the following steps: First, visit the website of our distributor to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance.

You may need the following information ready before you call:

- Product serial number
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

## Safety Information

### WARNING! / AVERTISSEMENT!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis. Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connexions lorsque l'alimentation est présente. Des composants électroniques sensibles peuvent être endommagés par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.

### CAUTION/ATTENTION



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis. Toujours vérifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques modernes sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composants électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

---

## Advisory Conventions

Four types of advisories are used throughout the user manual to provide helpful information or to alert you to the potential for hardware damage or personal injury. These are Notes, Important, Cautions, and Warnings. The following is an example of each type of advisory.



**NOTE:**

A note is used to emphasize helpful information



**IMPORTANT:**

An important note indicates information that is important for you to know.



**CAUTION/ ATTENTION**

A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.

Un avertissement d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.



**WARNING!/AVERTISSEMENT!**

An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.

Un avertissement de choc électrique indique le potentiel de choc sur des emplacements électriques et comment éviter ces problèmes.



**ALTERNATING CURRENT / MISE À LE TERRE!**

The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.

Le symbole de Mise à Terre indique le risque potentiel de choc électrique grave à la terre incorrecte.

# 1 INTRODUCTION

Congratulations on purchasing Winmate® G-WIN Vehicle Mount Display. Winmate® G-WIN Vehicle Mount Display comes in rugged aluminum alloy housing with IP65 protection and anti-corrosion coating and great ability for shock and vibration resistance. Sunlight readable panel provide great visibility even in bright light conditions.

Both of great mobility and robust design are fitting the demands for every harsh environment applications such as logistics, transportation/ fleet management, heavy vehicles, utility and also outdoor usage.

## 1.1 Features

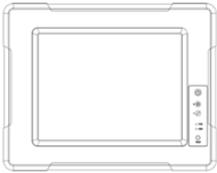
Winmate® G-WIN Vehicle Mount Display features:

- 8.4", 10.4", and 12.1"
- Front IP65 rain and dust proof
- 5 Wire Resistive touch/ Anti-reflective protection glass
- Aluminum housing with anti-corrosion
- Wide range isolation 9-36V DC input
- Mounting options suitable for vehicle mounting: VESA Mount, Yoke Mount and Roof Mount
- Compliance with MIL-STD 810 & IEC 60068-2-27 for shock and vibration
- Compliance with EN50155

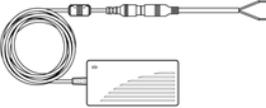
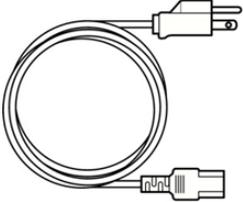
## 1.2 Package Contents

Carefully remove the box and unpack your device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

Standard factory shipment list:

			
<b>Display</b>	<b>User Manual (Hardcopy)</b>	<b>Touch Driver CD</b>	<b>3 Pin Terminal Block</b>
Varies by product specifications	91521111102H	91711111T100D	Cable: 94EL02X020E0 Connector: 604520105004

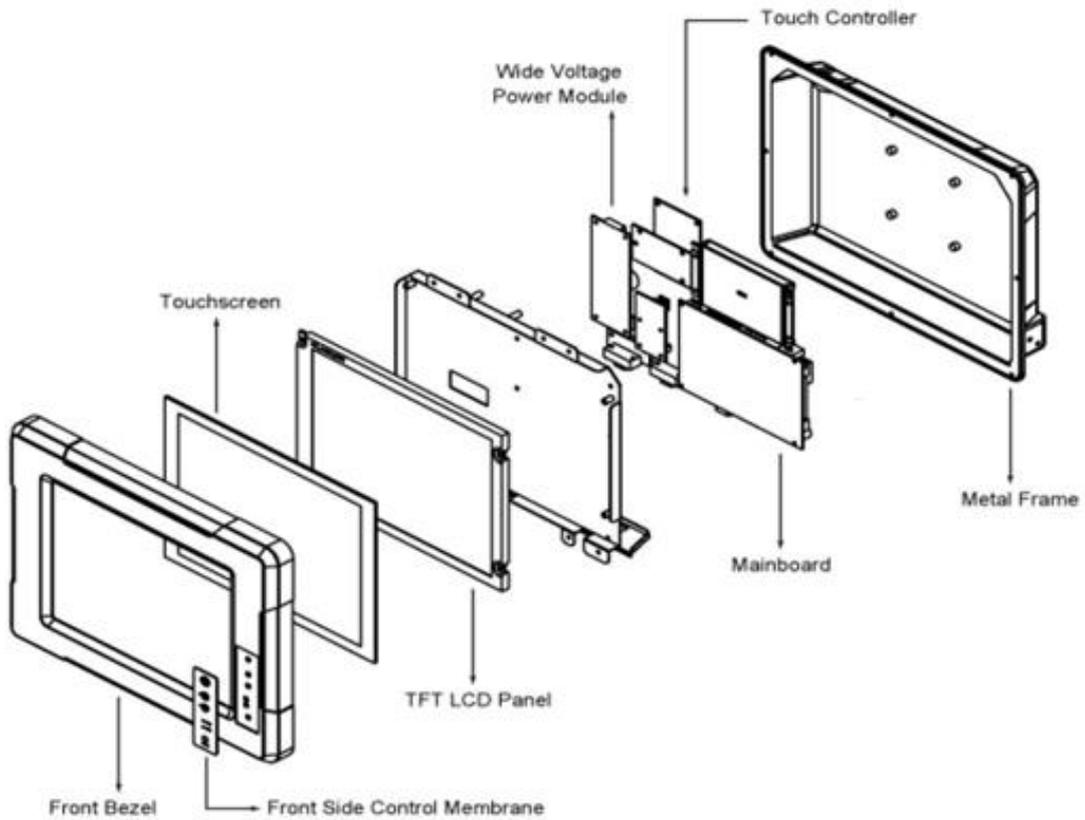
Package may include the following items based on your order (optional):

		
<b>AC Adapter</b>	<b>Power Cord</b>	<b>Mounting Bracket</b>
50W: 90PO12050000 80W: 90PO12800000	Varies by destination	8.4": 99KK08Z00010 10.4": 99KK00Z00010

## 1.3 Mechanical Concept

On the picture below you can see spare parts exploded drawing of a standard Vehicle Mount Display.

G-WIN

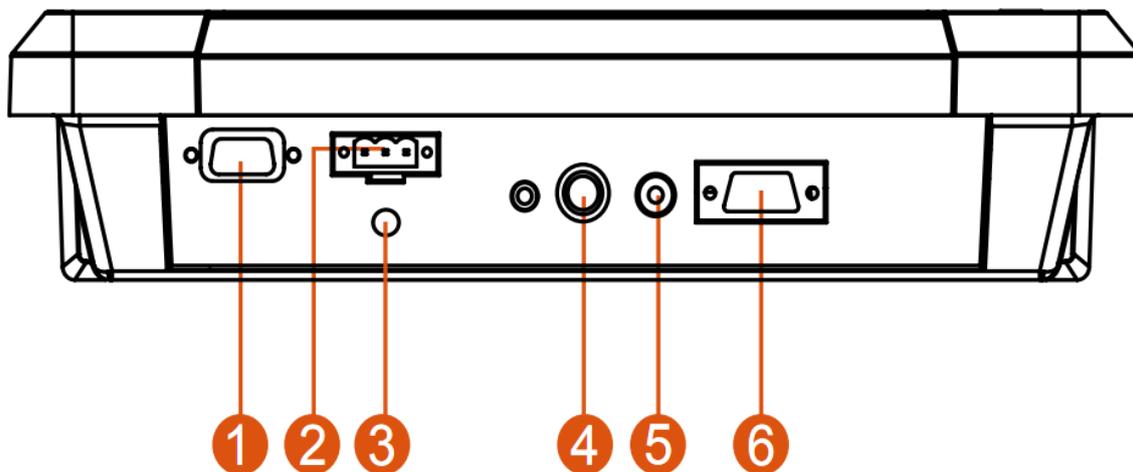


## 1.4 Description of Parts

### 1.4.1 Connector Placement

*G-WIN Display 8.4"*

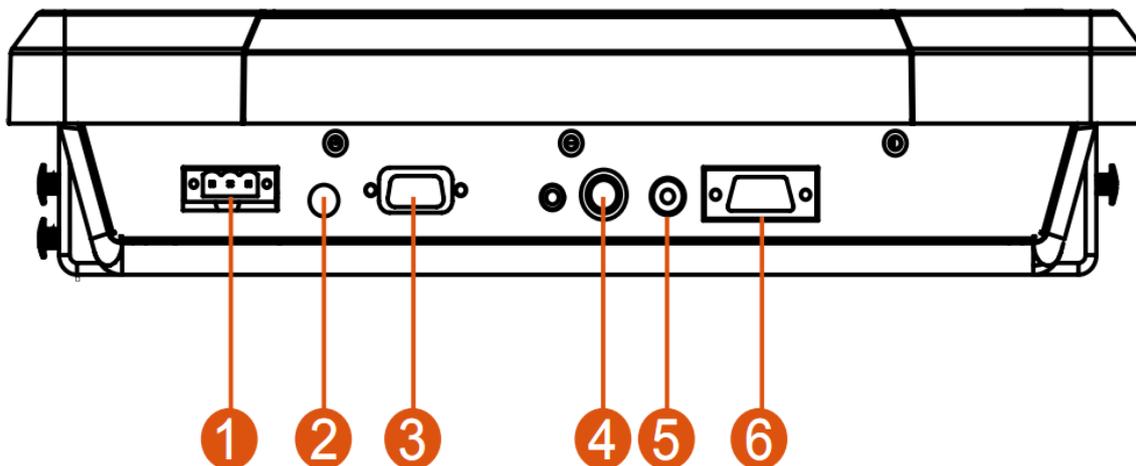
*R08T200-VMU1*



No	Description	No	Description
①	RS232 or USB for Touch (Optional)	④	S-Video (Optional)
②	9-36V DC Terminal Block (Default)	⑤	Composite (Optional)
③	DC Lockable Input (Optional)	⑥	VGA (Default)

## G-WIN Display 10.4"

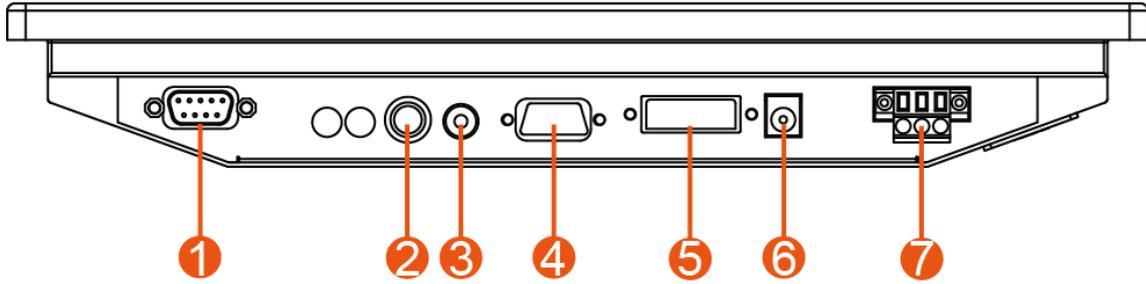
R10L600-VMP1, R10L100-VMP3



No	Description	No	Description
①	9~36V DC Terminal Block (Default)	④	S-Video (Optional)
②	DC Lockable Input (Optional)	⑤	Composite (Optional)
③	RS-232 or USB for Touch (Optional)	⑥	VGA

## G-WIN Display 12.1"

R12L100-VMM2, W12L100-VMM9



No	Description	No	Description
①	RS-232 or USB for Touch(Optional)	⑤	DVI-D(Optional)
②	S-Video(Optional)	⑥	DC Lockable input(Optional)
③	Composite(Optional)	⑦	9~36V DC Terminal Block(Default)
④	VGA		

## 1.4.2 Physical Buttons and LED Indicators

Physical buttons and LED indicators located in front or on the rear side of the Display.

### Physical Buttons



Icon	Button	Function
	Enter/Menu	Enter / Call the main OSD menu.
	Exit / Auto adjustment	Exit / Auto adjustment
	Brightness UP	Increase the brightness of the display screen, or allows user to navigate items of a single OSD menu.
	Brightness DOWN	Decrease the brightness of the display screen, or allows user to navigate items of a single OSD menu.
	Power	Turn ON or turn OFF the system.

### LED Indicators

Icon	Description	Function
	Power Indicator	Lights up in "Green" when the monitor turn on
	Stand by Indicator	Lights up in "Orange" when the device cannot detect any input source

---

## 2 INSTALLATION

### 2.1 Wiring Requirements

The following common safety precautions should be observed before installing any electronic device:

- Strive to use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must cross make sure the wires are perpendicular at the intersection point.
- Keep the wires separated according to interface. The rule of thumb is that wiring that shares similar electrical characteristics may be bundled together.
- Do not bundle input wiring with output wiring. Keep them separate.
- When necessary, it is strongly advised that you label wiring to all devices in the system.



#### CAUTION

- Do not run signal or communication wiring and power wiring in the same conduit. To avoid interference, wires with different signal characteristics (i.e., different interfaces) should be routed separately.
- Be sure to disconnect the power cord before installing and/or wiring your device.
- Verify the maximum possible current for each wire gauge, especially for the power cords. Observe all electrical codes dictating the maximum current allowable for each wire gauge.
- If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.

Be careful when handling the unit. When the unit is plugged in, the internal components generate a lot of heat which may leave the outer casing too hot to touch.

## 2.2 MOUNTING

G-WIN Vehicle Mount Display devices come with different mounting options suitable for most of the industrial and commercial applications.

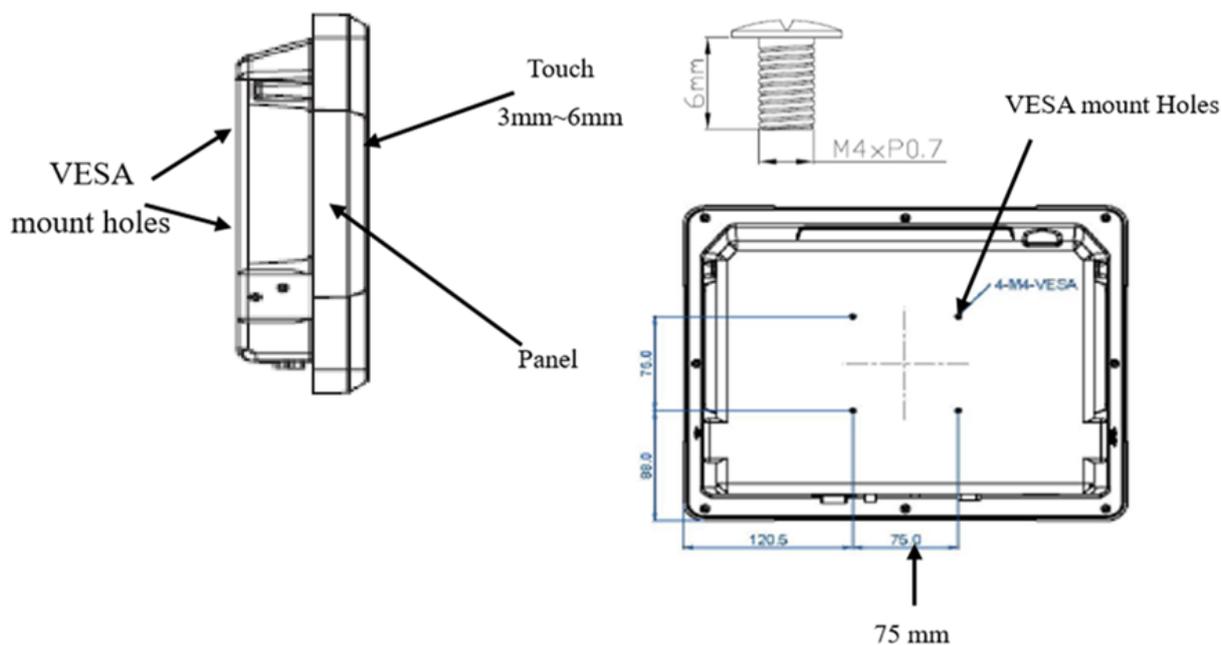
### 2.2.1 VESA Mounting

G-WIN Vehicle Mount Display has VESA mount holes on the rear side. Follow instructions below to mount the unit with VESA Mount bracket (not supplied by Winmate).

Size	VESA Plate Dimensions	Screw hole diameter
8.4", 10.4", 12.1	75 x 75 mm	VESA M4x6 mm

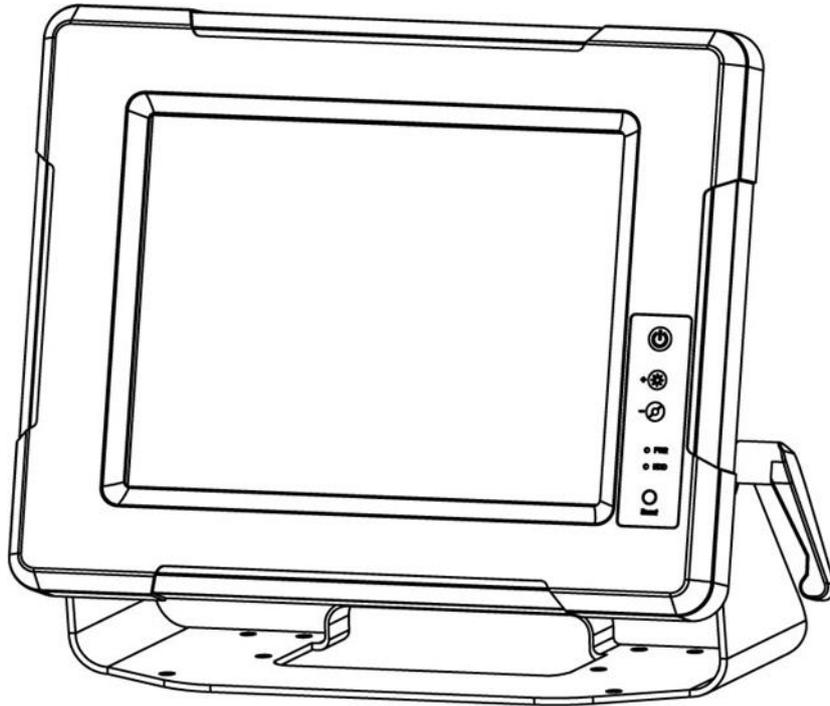
#### Mounting Instruction:

1. Screw VESA Bracket to the fixture (ex. wall) with M4 flathead screws.
2. Place the device on VESA bracket.
3. Carefully mount the device to the fixture (for ex. wall).
4. When the installation is complete, plug the power cord into a grounded AC outlet. Turn on the power.



## 2.2.2 Yoke Mounting

Yoke Mount solution allows to mount your device on a wall or ceiling. You can purchase dash/ yoke mounting kit from Winmate as an optional accessory.

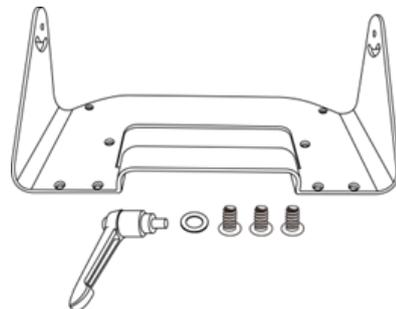


### Yoke Mounting Kit:

Size	Winmate Part Number
8.4"	99KK08Z00010
10.4"	99KK00Z00010

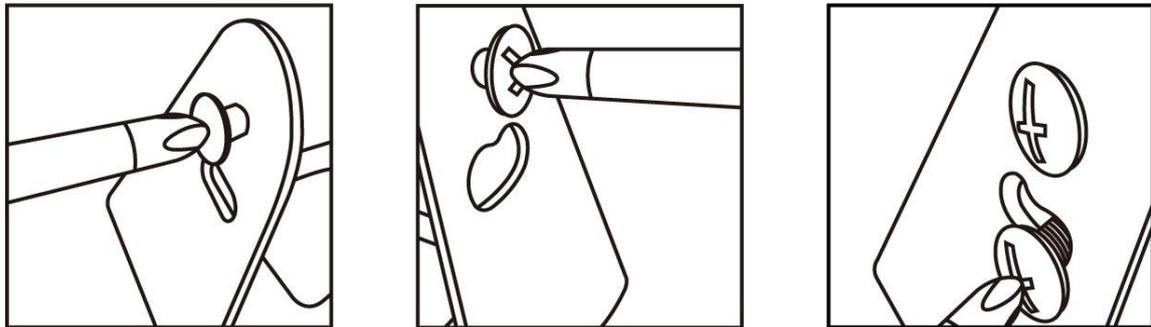
### Yoke Mount Kit includes:

- One bracket stand
- Three M5 x10 screws with washer
- One locking handle adjustment tool with metal washer

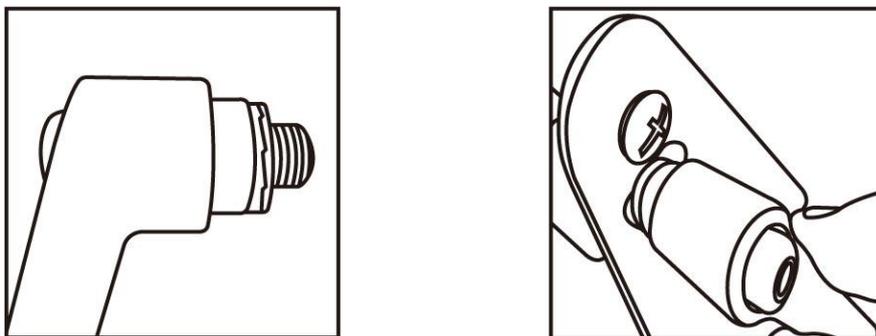


### Mounting Instruction:

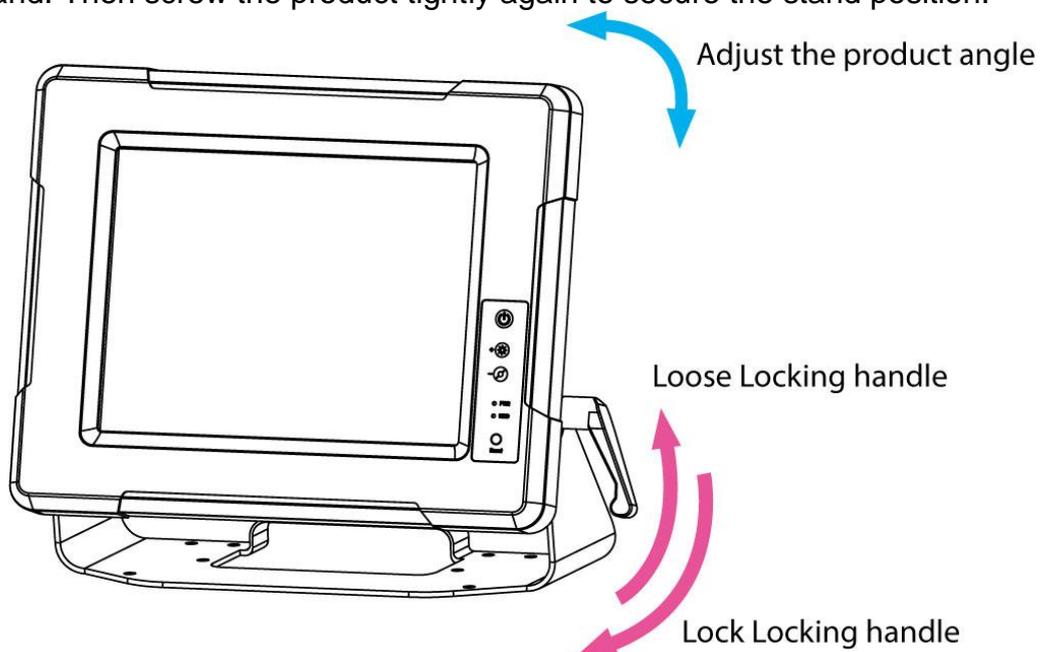
1. Place the G-WIN Vehicle Mount Display on the bracket stand, aiming screw hole for each other.
2. Secure three M5x10 screws to fix the device upon the bracket stand.



3. Secure tightly locking handle to the Display.



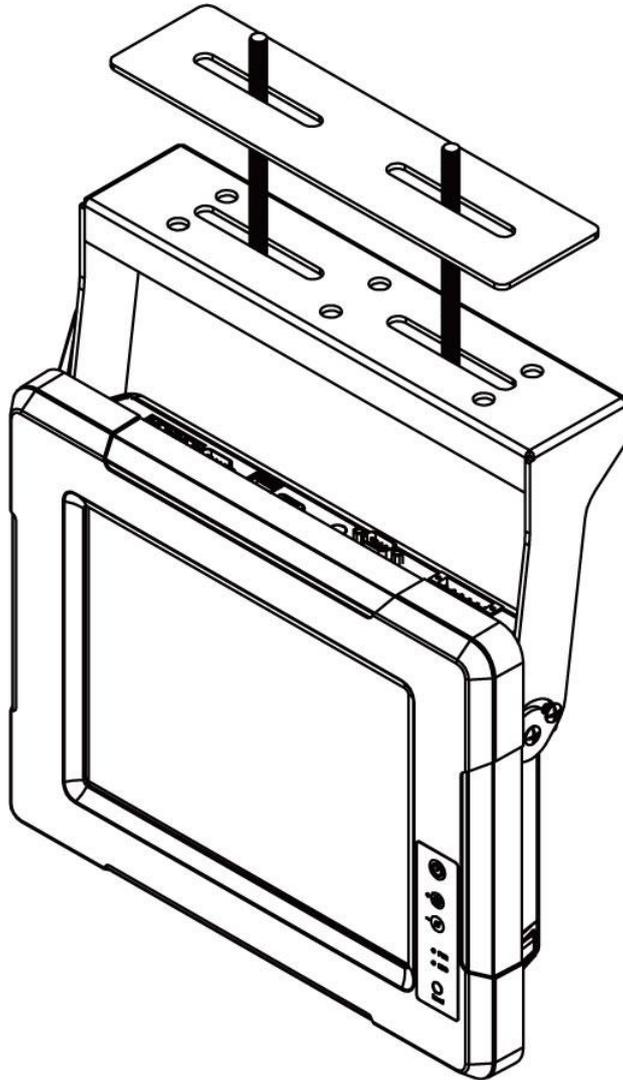
4. Loosen the hand-screw adjustment tool, then you can adjust product angle on the stand. Then screw the product tightly again to secure the stand position.



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## **2.2.3 Roof Mounting**

Roof mounting allows mounting your device on the roof. You can purchase roof mounting kit from Winmate as an optional accessory.

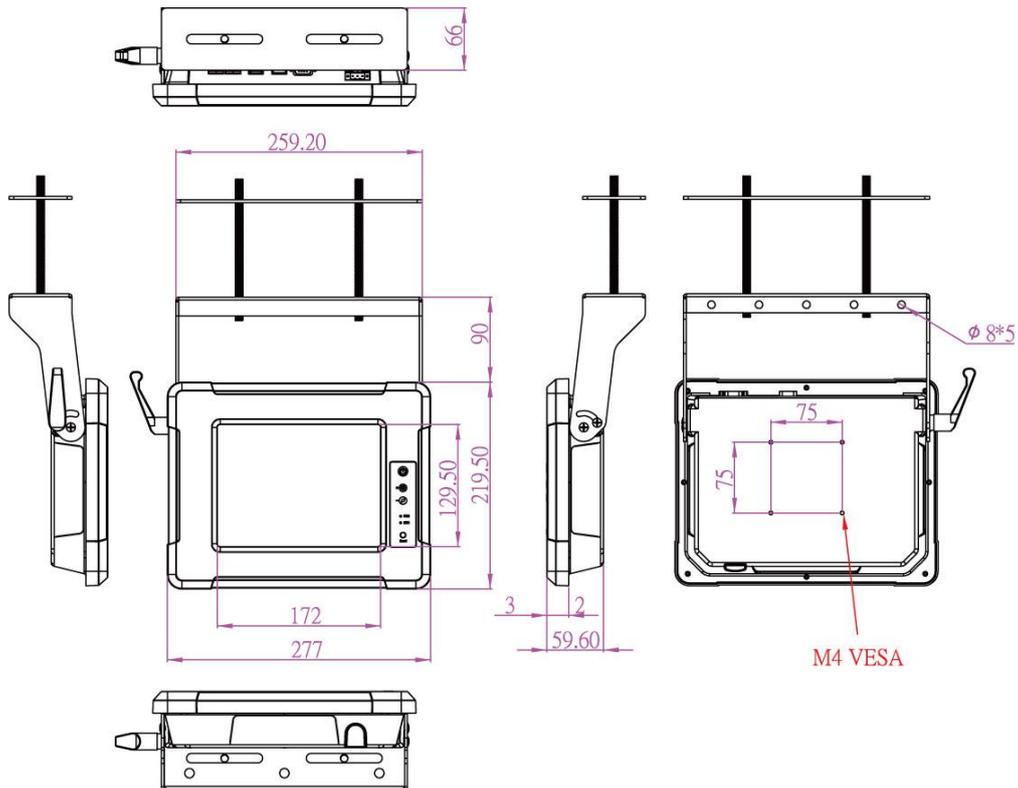


### **U-Shape Mounting Kit:**

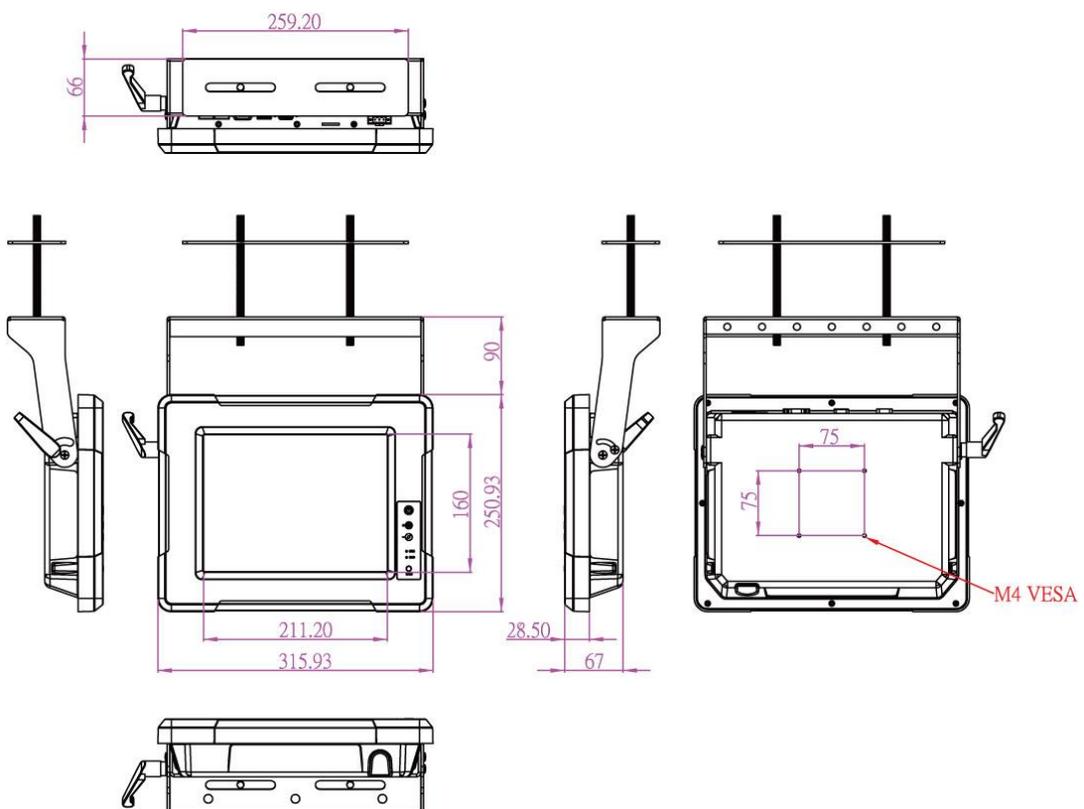
<b>Size</b>	<b>Winmate Part Number</b>
8.4"	98K008A0000R
10.4"	98K010A00018

## U-Shape Mounting Kit Mechanical Drawing

For 8.4" G-WIN Vehicle Mount Display



For 10.4" G-WIN Vehicle Mount Display



---

## 2.3 Cable Mounting Considerations

For a nice look and safe installation, make sure cables are neatly hidden behind the device.



**CAUTION/ ATTENTION**

Observe all local installation requirements for connection cable type and protection level.

Suivre tous les règlements locaux d'installations, de câblage et niveaux de protection.



**CAUTION/ ATTENTION**

Turn off the device and disconnect other peripherals before installation.

Éteindre l'appareil et débrancher tous les périphériques avant l'installation.

## 2.4 Connecting Power

Please refer to maximum power consumption note before connecting your display to the source of power.

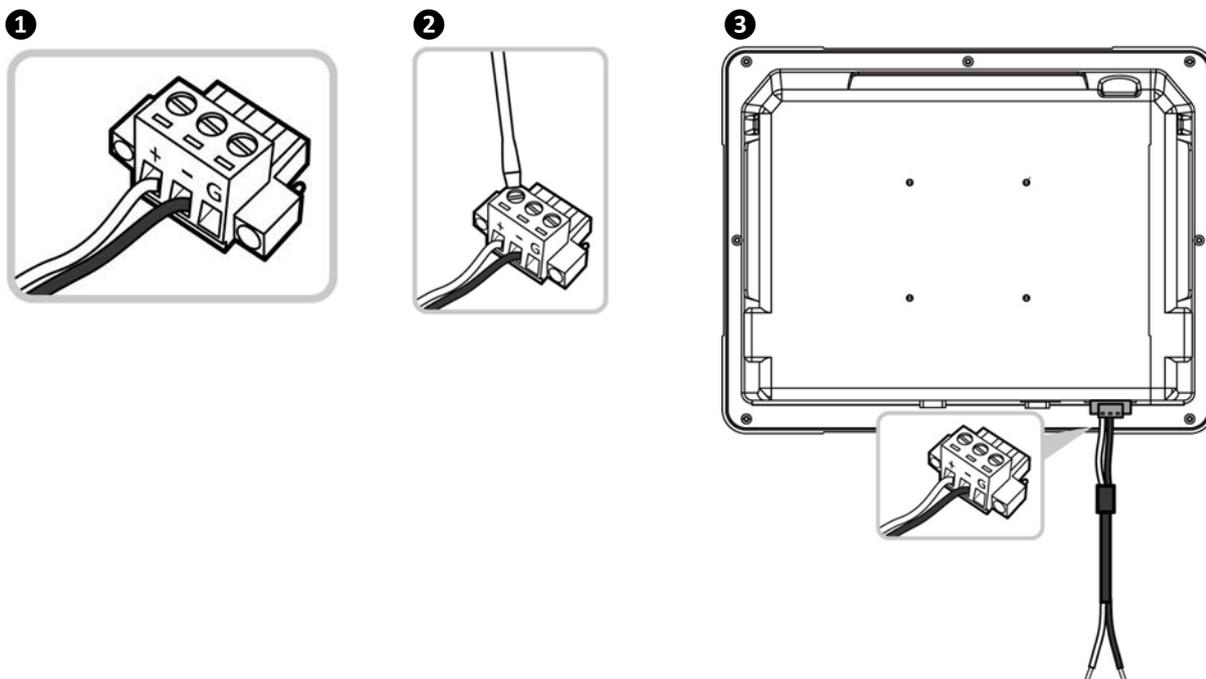
Size	8.4"	10.4"	12.1"
Maximum power consumption	30W	40W	50W

### 2.4.1 Connecting to DC Power Source

1. Connect the 3-pin terminal block.
2. Screw the Terminal block to fix the cable.
3. Connect terminal block to the Display.

“+” Connect to power supply until 0V.

“-” Connect to power supply until it get 9~36V DC.



The device is ready to work once is connected to the source of power.

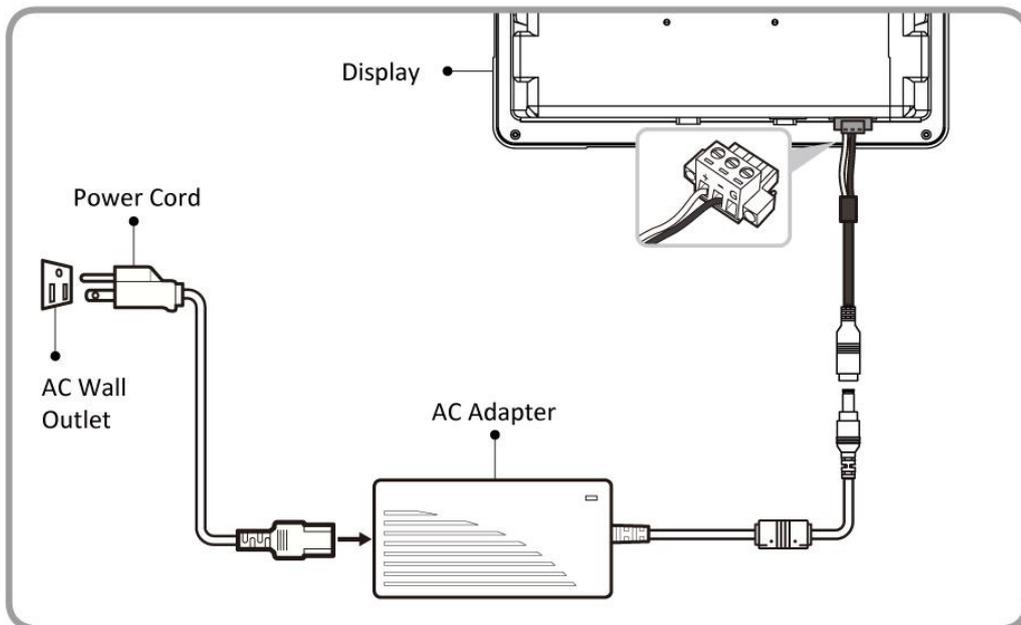
## 2.4.2 Connecting to AC Power Source



### IMPORTANT:

Use AC Adapter to connect the device to AC power source for testing purposes only.

1. Connect the AC adapter to the 3 pin terminal block located on the back side of the Display.
2. Connect the power cord to AC adapter.
3. Plug the power cord in to the AC outlet and the device will turn on automatically.



AC Adapter specifications vary by panel size.

Size	8.4"	10.4"	12.1"
AC Adapter	12V/ 50W	12V/ 50W	12V/ 50W



### CAUTION

Use only the AC adapter included in your package. Using other AC adapters may damage the device.



### ALTERNATING CURRENT

This product must be grounded. Use only a grounded AC outlet. Install the additional PE ground wire if the local installation regulations require it.

## 2.5 Connecting Peripherals

The panel control port is designed for monitors that work with a variety of compatible video sources. Due to the possible deviations between these signal sources, you may have to make adjustments to the monitor settings from the OSD menu when switching between these sources.



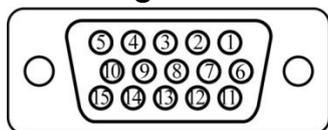
**NOTE:**

Notice that standard input terminals include VGA. Your device may be equipped with DVI-D, S-Video or Composite input terminals based on your order.

### 2.5.1 VGA Connector

G-WIN Rugged Display uses standard 15pin D-sub connector. Plug 15-pin VGA signal cable to the VGA connector in the rear of motherboard, and plug the other end to the monitor. Secure cable connectors with hexagonal copper pillars M3x4mm.

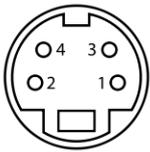
***Pin Assignment and signal names for VGA connector***



Pin №	Signal Name	Pin №	Signal Name
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	AGND
7	AGND	8	AGND
9	VGA_DE	10	GND
11	NC	12	DDCSDA
13	H Sync	14	V Sync
15	DDCSCL		

## 2.5.2 S-Video

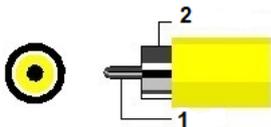
Use Mini-DIN connector to connect S-Video to the display.



Pin №	Signal Name	Pin №	Signal Name
1	GND	2	GND
3	Y	4	C

## 2.5.3 Composite

Use composite video cable to connect composite video input.



Pin №	Signal Name	Pin №	Signal Name
1	Composite Video Signal	2	GND

## 2.5.4 DVI-D Connector

Use DVI-D to connector in the rear of PC system, and plug the other end to the TFT LCD display. Fasten cable connectors with screws.



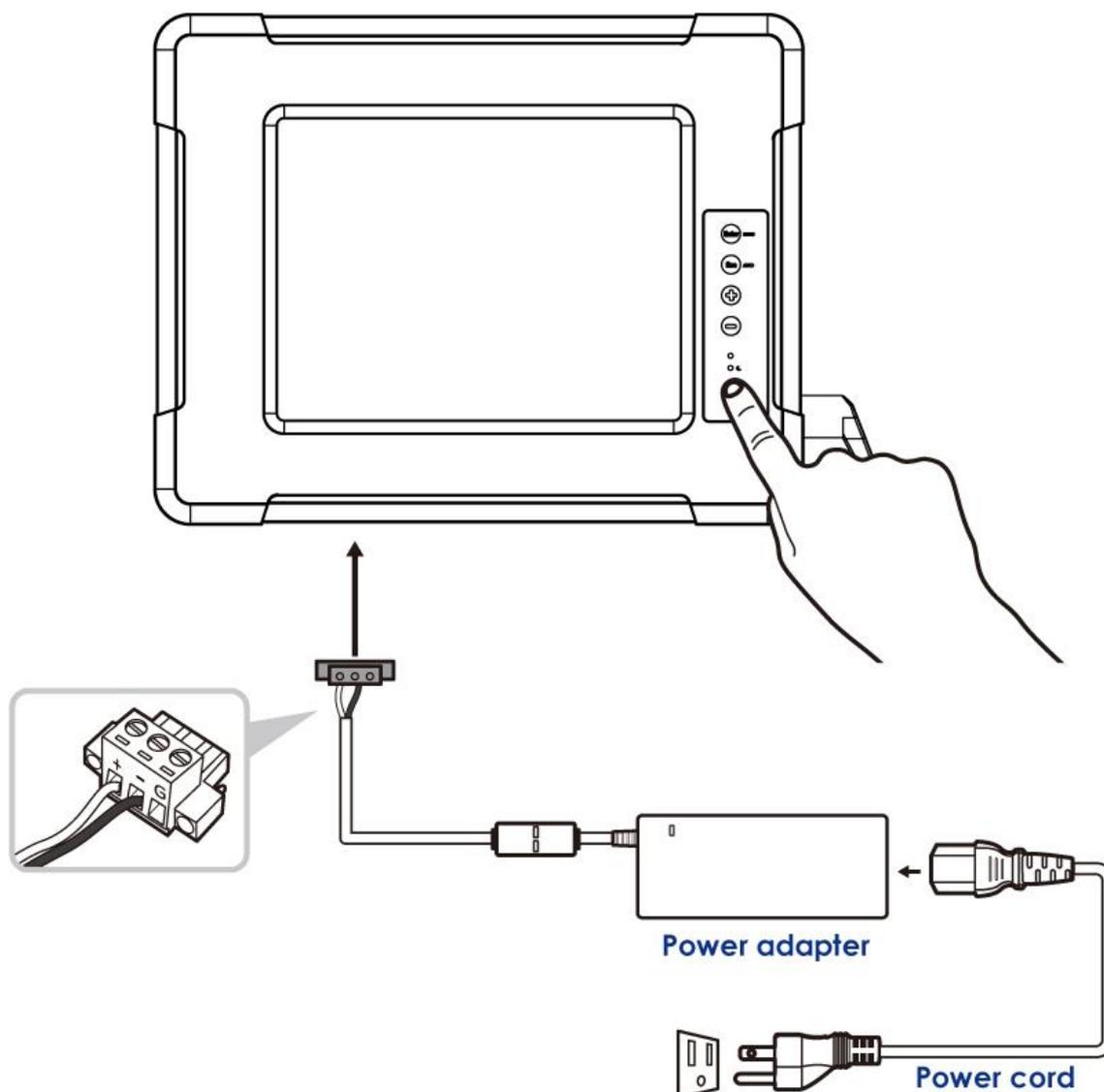
Pin №	Signal Name	Pin №	Signal Name
1	DVI_RX2-	2	DVI_RX2+
3	GND	4	4-
5	4+	6	DVI_SCL
7	DVI_SDA	8	NC
9	DVI_RX1-	10	DVI_RX1+
11	GND	12	3-
13	3+	14	+5V
15	DVI_CON_CABLE	16	DVI_CON_HP
17	DVI_RX0-	18	DVI_RX0+
19	GND	20	5-
21	5+	22	GND
23	DVI_CLKP	24	DVI_CLKN
C1	NC	C2	NC
C3	NC	C4	NC
C5	NC		

## 3 OPERATING THE DEVICE

### 3.1 Turning on the System

To turn on the Display:

1. Connect the display to the source of power (Refer to [Connecting Power](#) section of this quick start guide for more details).
2. Press the power on switch to turn the display on.



**IMPORTANT:**

Use AC Adapter to connect the device to AC power source for testing purposes only.

To turn off your device, disconnect power source and unplug from the power outlet, disconnect all the peripherals if needed.

---

## 3.2 Navigating the OSD Menu

This section describes how to navigate the OSD Menu.

OPTION	ACTION	EFFECT
Enter the main menu	Press the MENU button	Display the main menu on the screen.
Select the menu you want to adjust	Press the <b>+/-</b> button	Shift the item selections up or down until it is desired, and then press the button again to enter the menu item.
Adjust item settings	Press the <b>+/-</b> button	Adjust the value of setting. Once you adjust the value of setting, the value will be stored automatically.
Exit the OSD menu	Select the <b>"EXIT OSD"</b> item or press the Exit Key directly	Return the regular screen viewing,. If there is no command respond for 30 seconds, OSD menu will be closed automatically.

## 3.4 OSD Menu in VGA Mode

### Summary

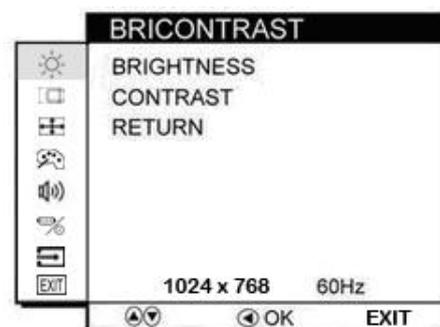
Icon	Description	Options	Icon	Description	Options
	BRICONTRAST	BRIGHTNESS CONTRAST		AUDIO	VOLUME ADJUST SPEAK ON/OFF
	POSITION	H-POSITION V-POSITION		CHANNEL	ANALOG DVI (Optional) CVBS (Optional) S-Video (Optional) HDMI (Optional)
	IMAGE	AUTO CLOCK PHASE WHITE BALANCE		RECALL	YES NO
	COLOR	USER └(RED/GREEN/BLUE) 9300K 6500K ADC BRIGHTNESS		OSD EXIT	YES NO

Description of items on the navigation menu:

#### **BRICONTRAST**

Press "+" to increase or "-" to decrease the brightness or contrast.

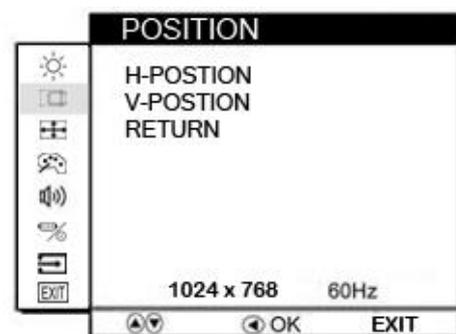
- **BRIGHTNESS:** Use to adjust the screen's brightness
- **CONTRAST:** Use to adjust the screen's contrast



#### **POSITION**

You can adjust the screen's position by horizontal and vertical manually.

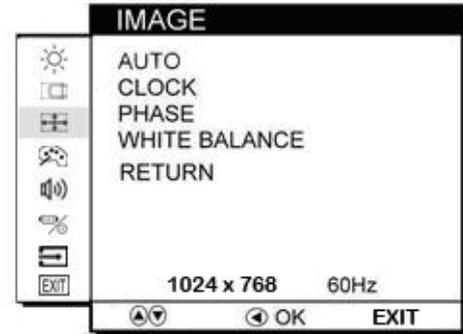
- **H-POSITION:** Use to adjust the image to the left or right on the screen
- **V-POSITION:** Use to adjust the image up or down on the screen



## **IMAGE**

You can adjust the value of screen quality automatically.

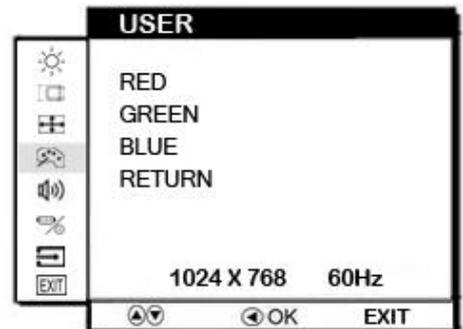
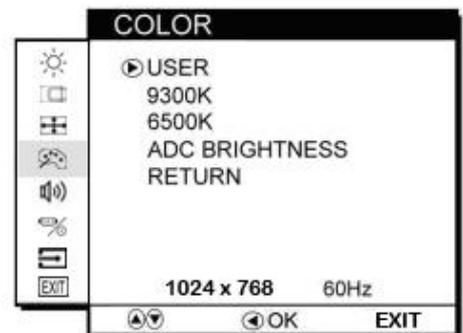
- **AUTO:** Use to choose the best settings for the current input signal
- **CLOCK:** Use to adjust the value of horizontal image
- **PHASE:** Use to adjust the phase control (Phase adjustment may be required to optimize the display quality)
- **WHITE BALANCE:** Use to set RGB signal voltage level



## **COLOR**

You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine tune the color temperature by USER option if necessary.

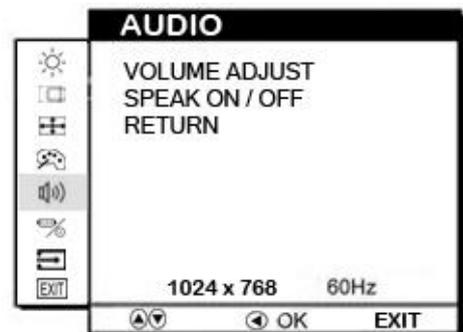
- **USER:** Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- **9300K:** Use to set value of monitor for the CIE coordinate 9300 color temperature
- **6500K:** Use to set value of monitor for the CIE coordinate 6500 color temperature
- **ADC Brightness:** Set value of monitor for ADC Brightness



## **AUDIO (optional)**

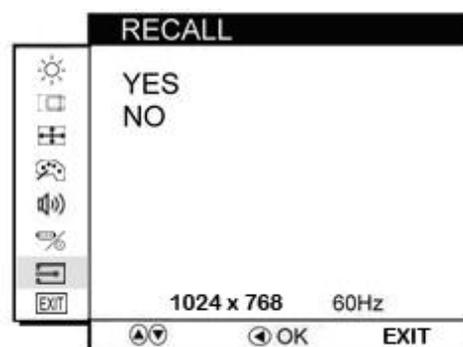
You can adjust the setting of speaker, including volume and mute.

- **VOLUME ADJUST:** Use to adjust the volume of speaker
- **SPEAK ON/OFF:** Use to make the speaker work or mute



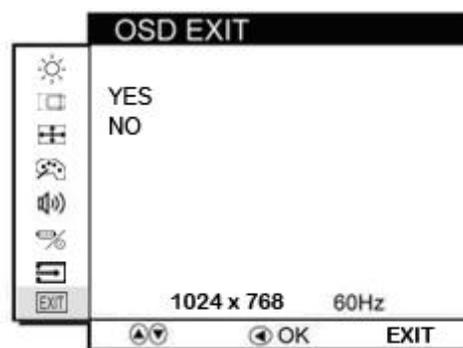
## **RECALL**

You can recall the factory default setting by selecting “YES”. Select “NO” to return the main menu.



## **OSD EXIT**

You can exit the OSD menu by selecting “YES”. Select “NO” to return the main menu.



## 3.5 OSD Menu in DVI Mode

### Summary

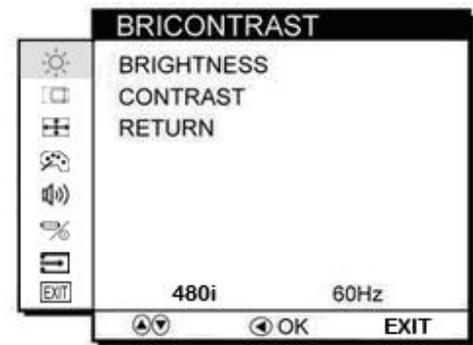
	<b>BRICONTRAST</b>	BRIGHTNESS CONTRAST		<b>AUDIO</b>	VOLUME ADJUST SPEAK ON/OFF
	<b>POSITION</b>	Not available under DVI mode		<b>CHANNEL</b>	VGA DVI BNCs
	<b>IMAGE</b>	Not available under DVI mode		<b>RECALL</b>	YES NO
	<b>COLOR</b>	USER └(RED/GREEN/BLUE)		<b>OSD EXIT</b>	YES NO

Description of items at the navigation menu:

#### **BRICONTRAST**

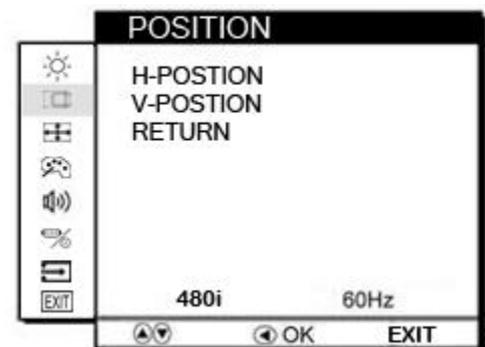
Press "+" to increase or "-" to decrease the brightness or contrast.

- **BRIGHTNESS:** Use to adjust the screen's brightness
- **CONTRAST:** Use to adjust the screen's contrast



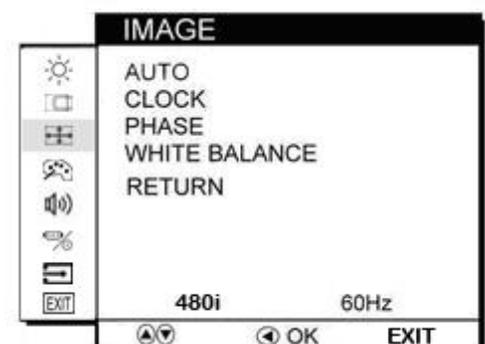
#### **POSITION**

These functions are not available under DVI mode.



#### **IMAGE**

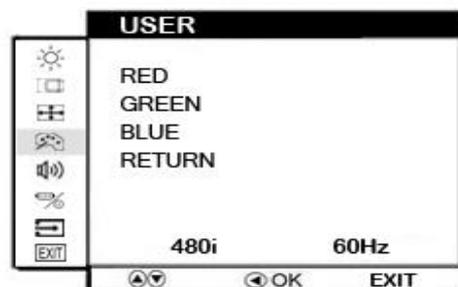
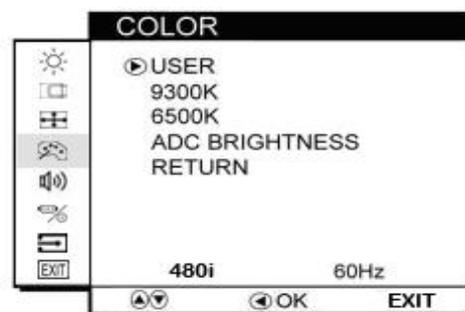
These functions are not available under DVI mode.



## **COLOR**

You can fine tune the color temperature by USER option if necessary.

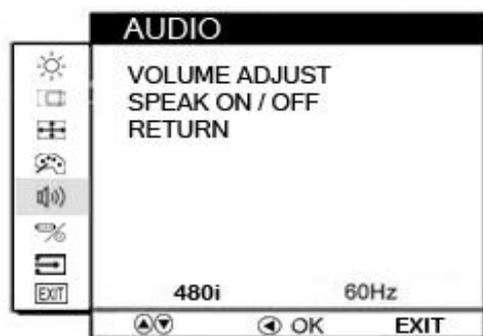
- **USER:** Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- For 9300K, 6500K, and ADC BRIGHTNESS, these functions are not available under DVI mode.



## **AUDIO (optional)**

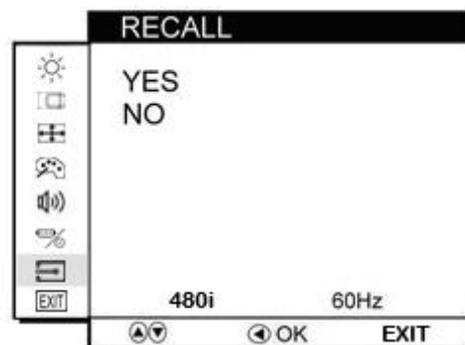
You can adjust the setting of speaker, including volume and mute.

- **VOLUME ADJUST:** Use to adjust the volume of speaker
- **SPEAK ON/OFF:** Use to make the speaker work or mute



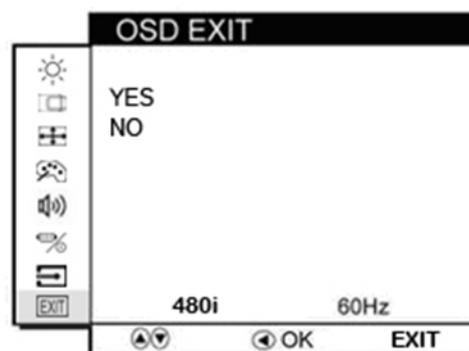
## **RECALL**

You can recall the factory default setting by selecting "YES". Select "NO" to return the main menu.



## **OSD EXIT**

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



## 3.6 OSD Menu in AV (CVBS/S-Video) Mode

Summary:

	<b>BRICONTRAST</b>	BRIGHTNESS CONTRAST		<b>AUDIO</b>	VOLUME ADJUST SPEAK ON/OFF
	<b>SHARPNESS</b>			<b>CHANNEL</b>	ANALOG DVI CVBS S-Video
	<b>SATURATION</b>			<b>RECALL</b>	YES NO
	<b>HUE</b>			<b>OSD EXIT</b>	YES NO
<b>XII</b>	<b>GAMMA</b>	GAMMA 0 GAMMA 1 GAMMA 2 GAMMA 3			

Description of items on the navigation menu:

### \* **BRICONTRAST**

Press "+" to increase or "-" to decrease the brightness or contrast.

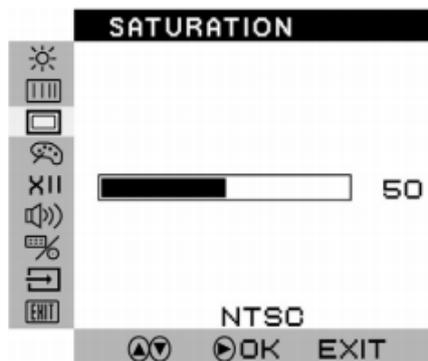
- **BRIGHTNESS:** Use to adjust the screen's brightness
- **CONTRAST:** Use to adjust the screen's contrast

### **SHARPNESS**

Press "+" to increase or "-" to decrease the value of sharpness. This function allows the user to optimize the sharpness of the image.

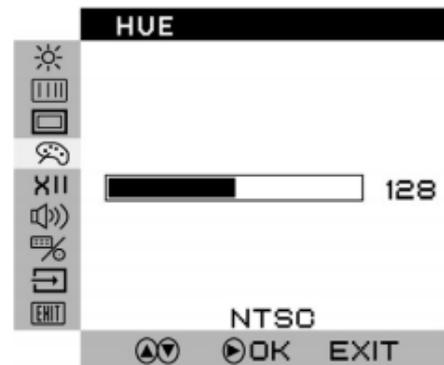
### **SATURATION**

Press "+" to increase or "-" to decrease the value of saturation.



## HUE

Press “+” to increase or “-” to obtain the desired color settings. The HUE is defined as a phase shift of the sub-carrier with respect to the burst.



## AUDIO (optional)

You can adjust the setting of speaker, including volume and mute.

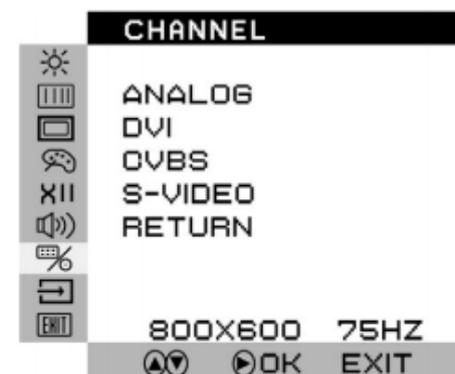
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



## CHANNEL(optional)

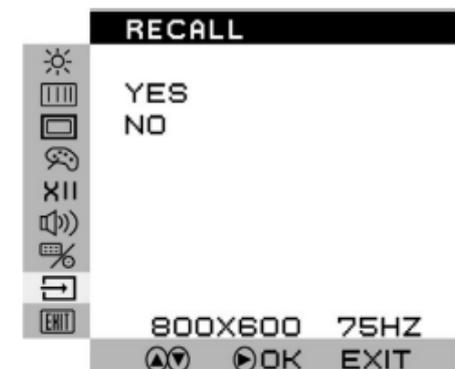
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode



## RECALL

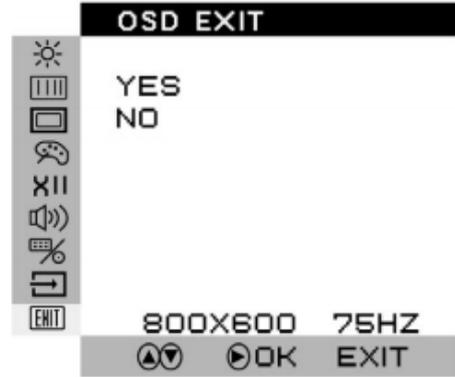
You can recall the factory default setting by selecting “YES”. Select “NO” to return the main menu.



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**EXIT OSD EXIT**

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



# 4 TROUBLESHOOTING

## 4.1 Troubleshooting Guide

If your monitor fails to operate correctly, check the following chart for possible solution before calling for repairs:

Condition	Check Point
The picture does not appear	<ul style="list-style-type: none"> <li>• Check if the signal cable is firmly seated in the socket.</li> <li>• Check if the Power is ON at the computer</li> <li>• Check if the brightness control is at the appropriate position, not at the minimum.</li> </ul>
The screen is not synchronized	<ul style="list-style-type: none"> <li>• Check if the signal cable is firmly seated in the socket.</li> <li>• Check if the output level matches the input level of your computer.</li> <li>• Make sure the signal timings of the computer system are within the specification of the monitor.</li> <li>• If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.</li> </ul>
The position of the screen is not in the center	<ul style="list-style-type: none"> <li>• Adjust the H-position, and V-position, or Perform the Auto adjustment.</li> </ul>
The screen is too bright (too dark)	<ul style="list-style-type: none"> <li>• Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).</li> </ul>
The screen is shaking or waving	<ul style="list-style-type: none"> <li>• Perform the Auto adjustment.</li> <li>• Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor.</li> <li>• Check if the specific voltage is applied.</li> <li>• Check if the signal timing of the computer system is within the specification of monitor.</li> </ul>

*\*If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.*

# 5 SPECIFICATIONS

## 5.1 Hardware Specifications

	Model Name				
	R08T200-VMU1	R10L600-VMP1	R10L100-VMP3	R12L100-VMM2	W12L100-VMM9
<b>Display</b>					
Size/Type	8.4"	10.4"	10.4"	12.1"	12.1"
Resolution	800 x 600	800 x 600	640 x 480	1024 x 768	1280 x 800
Brightness	600 (typ.)	600 (typ.)	450 (typ.)	500 (typ.)	400 (typ.)
Contrast Ratio	600:1 (typ.)	400:1 (typ.)	750:1 (typ.)	700 (typ.)	1000 (typ.)
Viewing Angle	-75~75 (H) ; -70~60 (V)	-70~70 (H) ; -70~60 (V)	-80~80 (H) ; -60~80 (V)	-80~80 (H) ; -70~70 (V)	-88~88 (H) ; -88~88 (V)
Max Colors	232, 144 (6bits/color)	232, 144 (6bits/color)	16.2M (8bits/color)	262K colors (RGB 6bits)	262K colors (RGB 6bits)
Touch (Optional)	5 wire resistive, 4 wire resistive	5 wire resistive, IR touch	5 wire resistive, IR touch	5 wire resistive	4 wire resistive
<b>Input/ Output</b>					
Power Input	1 x 9~36V Terminal Block (Default) 1 x DC Lockable Input (Optional)				
VGA	1 x VGA (Default)				
S-Video	1 x S-Video (Optional)				
Composite	1 x Composite (Optional)				
Touch	1 x RS-232 or USB for Touch (Optional)				
<b>Power Specifications</b>					

Power Input	9-36V DC (Default)				
Maximum Power Consumption	30W	40W	40W	50W	50W
<b>Mechanical Specifications</b>					
Dimensions (W x D x H, mm)	277 x 219.5 x 59.7	315.9 x 250.9 x 67			
Mounting	VESA Mount, Yoke Mount, Roof Mount	VESA Mount, Yoke Mount, Roof Mount	VESA Mount, Yoke Mount, Roof Mount	VESA Mount, Yoke Mount, Roof Mount	VESA Mount
<b>Environment Considerations</b>					
Operating Temperature	-10 ~ 55°C				
Storage Temperature	-30 ~ 70°C				
Operating Humidity	10 ~ 95% non-condensing				
IP Rating	Front IP65				
Shock	Compliance with MIL-STD-810F				
Vibration	Compliance with MIL-STD-810F				
EMC	CE, FCC Class B				
Reliability	Need to apply 9~36V DC isolation power				
<b>Optional Items</b>					
Sunlight Readable	Transflective film enhancement for optional				
Anti-reflective Glass	3mm (Replace touch)				

# APPENDIX

## Appendix A: Cleaning the Monitor

### Before cleaning:

- Make sure the device is turned off.
- Disconnect the power cable from any AC outlet.

### When cleaning:

- Never spray or pour any liquid directly on the screen or case.
- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- The display area is highly prone to scratching. Do not use ketene type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
- If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
- Don not use water or oil directly on the display screen. If droplets are allowed to drop on the screen, permanent staining or discoloration may occur.

## Appendix B: Frequency Table

The choice of supported modes depends on the monitor native resolution. Refer to the table below for more information about available input signals.

### B-1 Separate RGB Video Signal (VGA) Input Timing

Input Timing Range: H : 30-80KHz; V : 50-75Hz

Mode	Resolution	H-Freq. (Hz)	V-Freq. (Hz)
Mode 1	640x350	31.5	70
Mode 2	640x400	31.5	70
Mode 3	640x480	31.5	60
Mode 4	640x480	37.9	72
Mode 5	640x480	37.5	75
Mode 6	720x400	31.47	70
Mode 7	800x480	31.5	60
Mode 8	800x600	35.1	56
Mode 9	800x600	37.9	60
Mode 10	800x600	48.1	72
Mode 11	800x600	46.9	75
Mode 12	1024x768	48.4	60
Mode 13	1024x768	56.5	70
Mode 14	1024x768	60.0	75
Mode 15	1024x768	48.4	60
Mode 16	1024x768	56.5	70
Mode 17	1024x768	60.0	75
Mode 18	1280x800	48.4	60
Mode 19	1280x1024	64.0	60
Mode 20	1280x1024	80.0	75
Mode 21	1600x1200	75	60
Mode 22	1680x1050	65.3	60
Mode 23	1920x1080	67.5	60

### B-2 Composite Video Input; Y/C Video input (S-Video) (Optional)

Video Format	Resolution	Frequency	Country Support
NTSC-M	525x60	3.58 MHz	U.S., Japan, others
PAL	525x60	4.43 MHz	China, Europe, others

### B-3 DVI Input Timing (Optional)

Input Timing Range: H : 31.47-80 KHz; V : 60Hz

Mode	Resolution	H-Freq. (Hz)	V-Freq. (Hz)
Mode 1	640x480	31.47	60
Mode 2	800x600	37.87	60
Mode 3	1024x768	48.36	60
Mode 4	1280x1024	64.0	60
Mode 5	1600x1200	75	60
Mode 6	1680x1050	65.3	60
Mode 7	1920x1080	67.5	60



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