

NEXCOM International Co., Ltd.

**IoT Automation Solutions Business Group**  
**Industrial Panel Display**  
**IPPD 1600P/1800P/2100P**  
**User Manual**

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# PREFACE

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## Disclaimer

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## Acknowledgements

IPPD 1600P, IPPD 1800P and IPPD 2100P are trademarks of NEXCOM International Co., Ltd. All other product names mentioned herein are registered trademarks of their respective owners.

## Regulatory Compliance Statements

This section provides the FCC compliance statement for Class B devices and describes how to keep the system CE compliant.

## Declaration of Conformity

### FCC

This equipment has been tested and verified to comply with the limits for a Class B 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 accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area (domestic environment) is likely to cause harmful interference, in which case the user will be required to correct the interference (take adequate measures) at their own expense.

### CE

The product(s) described in this manual complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

## RoHS Compliance



### NEXCOM RoHS Environmental Policy and Status Update

NEXCOM is a global citizen for building the digital infrastructure. We are committed to providing green products and services, which are compliant with European Union RoHS (Restriction on Use of Hazardous Substance in Electronic Equipment) directive 2011/65/EU, to be your trusted green partner and to protect our environment.

RoHS restricts the use of Lead (Pb) < 0.1% or 1,000ppm, Mercury (Hg) < 0.1% or 1,000ppm, Cadmium (Cd) < 0.01% or 100ppm, Hexavalent Chromium (Cr<sub>6+</sub>) < 0.1% or 1,000ppm, Polybrominated biphenyls (PBB) < 0.1% or 1,000ppm, and Polybrominated diphenyl Ethers (PBDE) < 0.1% or 1,000ppm.

In order to meet the RoHS compliant directives, NEXCOM has established an engineering and manufacturing task force to implement the introduction of green products. The task force will ensure that we follow the standard NEXCOM development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which NEXCOM are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant.

### How to recognize NEXCOM RoHS Products?

For existing products where there are non-RoHS and RoHS versions, the suffix "(LF)" will be added to the compliant product name.

All new product models launched after January 2013 will be RoHS compliant. They will use the usual NEXCOM naming convention.

# Warranty and RMA

## NEXCOM Warranty Period

1. NEXCOM makes products in accordance with the Industry standard and, NEXCOM warrants that all her Industry-grade IPC and System products will be free from defect in neither material nor workmanship for twenty-four (24) months from the day of invoice issued.
2. For NEXCOM Panel PC product lines (the APPC, MPPC series), they are also guaranteed against defect in materials and workmanship for the period of twenty-four (24) months in their motherboard design. For 3rd party parts, it follows with original suppliers' standard: 12 months for battery pack and LCD, 24 months for adapter / add on modules (including GSM module, RFID module, and antenna).
3. If NEXCOM determines customer's warranty claim is valid, NEXCOM will repair or replace product(s) without additional charge for parts and labor. An extended Warranty Program will extend the warranty period of the product accordingly.

## Warranty Coverage

The warranty applies only to products manufactured or distributed by NEXCOM and her subsidiaries. This warranty covers all the products/shipments except for:

1. Any claimed defect, products that have been repaired or modified by persons who have not been authorized by NEXCOM or, products which have been subjected to misuse, abuse, accident, improper installation, or usage not in accordance with the product instruction. NEXCOM assumes no liability as a consequence of such events under the term of this warranty.

One example is the replacement of Tablet's or Hand-held's LCD display due to scratching stains or other degradation; these will not be covered under this warranty.

2. Damages caused by customers' delivery/shipping of the product or, product failure resulted from electrical power/voltage shock, or, installation of parts/components which are not supplied/approved by NEXCOM in advance.
3. Third-party products:
  - a. Software, such as the device drivers,
  - b. External devices such as HDD, printer, scanner, mouse, LCD panel, battery, and so on,
  - c. Accessory/parts that were not approved by NEXCOM and,
  - d. Accessory/parts were added to products after they were shipped from NEXCOM.

Product will be treated as "Out of Warranty" if:

- a. It expires the warranted 24 months period from the day it was purchased.
- b. It had been altered by persons other than an authorized NEXCOM service person or, which have been subjected to misuse, abuse, accident, or improper installation.
- c. It doesn't have the original NEXCOM Serial Number labeling for NEXCOM's warranty period identification or, tracking.

RMAs that NEXCOM has determined not to be covered by the warranty will be charged the NEXCOM Standard Repair Fee for the repairing. If a RMA is determined to be not repairable, customer will be notified and product(s) may be returned to customer at their request; a minimum service fee may be charged however.

### **NEXCOM Return Merchandise Authorization (RMA) Procedure**

For the RMA (Return Merchandise Authorization) shipment, customer is responsible for packaging and shipping the product to the designated NEXCOM service sites, with shipping charges prepaid by the customer. The original NEXCOM shipping box should be used whenever possible. NEXCOM shall pay for the return of the product to the customer's location. In case of expedited shipping request, an extra service charge shall be assessed and the customer is responsible for this extra return shipping charge.

1. Customers should enclose the "NEXCOM RMA Service Form" with the returned products.
2. Customers need to write down all the information related to the problem on the " NEXCOM RMA Service Form " when applying for the RMA service; information will help to understand the problem, including the fault description, on-screen messages, and pictures if possible.
3. Customers could send back the faulty product with or without the accessories and key parts such as the CPU and DIMM. If the key parts are included, please be noted clearly within the return form. NEXCOM takes no responsibility for the parts which are not listed in the return form.
4. Customers hold the responsibility to ensure that the packing of defective products is durable enough to be resistant against further damage due to the transportation; damage caused by transportation is treated as " Out of Warranty " under our Warranty specification.
5. RMA product(s) returned by NEXCOM to any location other than the

customer registered delivery address will incur an extra shipping charge, the customer is responsible for paying the extra shipping charges, duties, and taxes of this shipment.

### **Product Repairing**

1. NEXCOM will repair defective products covered under this limited warranty that are returned to NEXCOM; if products do prove to be defective, they will be repaired during their warranty period unless other warranty terms have been specified.
2. NEXCOM owns all parts removed from repaired products.
3. NEXCOM will use parts made by various manufacturers in performing the repair.
4. The repaired products will be warranted subjected to the original warranty coverage and period only.
5. For products returned as defective but, proved to be no defect/fault after the RMA process, NEXCOM reserves the right to claim for a NDF (No Defect Found) Service Charge.
6. NEXCOM will issue RMA Report which included Repair Detailed Information to the customer when the defective products were repaired and returned.
7. In addition to the above, NEXCOM may authorize Independent/Third-party suppliers to repair the defective products for NEXCOM.

## Out Of Warranty Service

There will be a service charge from NEXCOM for the "Out Of Warranty" product service; they are the Basic Diagnostic Service Fee and the Advanced Component Replacement Fee respectively. And, if the product can not be repaired, NEXCOM will either return the product to the customer or, just scrap it, followed by customer's instruction.

### 1. Testing and Parts Replacement

NEXCOM will have the following Handling Charges for those OoW products that returned:

- a. Basic Labor Cost and Testing Fee: as Table listed.
- b. Parts Fee: NEXCOM will charge for main IC chipsets such as the N.B., S.B., Super-IO, LAN, Sound, Memory, and so on.
- c. 3rd-party Device Fee: products replacement for CPU, DIMM, HDD, Chassis, and UPS.

2. Out of Warranty product will have a three months warranty for the fixed issues. If the product failed with different problem within 3 months, they will still incur the service charge of "Out of Warranty".

3. Out of Warranty "products will not be repaired without a signed PI from the customer, the agreement of the repair process.

Add-on card, 3rd Party Device and board level repair cost higher than new product prices, customer can abandon to sign PI to repair and, please contact with sales to buy new products.

## Safety Information

Before installing and using the device, note the following precautions:

- Read all instructions carefully.
- Do not place the unit on an unstable surface, cart, or stand.
- Follow all warnings and cautions in this manual.
- When replacing parts, ensure that your service technician uses parts specified by the manufacturer.
- Avoid using the system near water, in direct sunlight, or near a heating device.
- The load of the system unit does not solely rely for support from the rackmounts located on the sides. Firm support from the bottom is highly necessary in order to provide balance stability.

## Installation Recommendations

Ensure you have a stable, clean working environment. Dust and dirt can get into components and cause a malfunction. Use containers to keep small components separated.

Adequate lighting and proper tools can prevent you from accidentally damaging the internal components. Most of the procedures that follow require only a few simple tools, including the following:

- A Philips screwdriver
- A flat-tipped screwdriver
- A grounding strap
- An anti-static pad

Using your fingers can disconnect most of the connections. It is recommended that you do not use needle-nose pliers to disconnect connections as these can damage the soft metal or plastic parts of the connectors.

## Safety Precautions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a stable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection to protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Place the power cord in a way so that people will not step on it. Do not place anything on top of the power cord. Use a power cord that has been approved for use with the product and that it matches the voltage and current marked on the product's electrical range label. The voltage and current rating of the cord must be greater than the voltage and current rating marked on the product.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
  - a. The power cord or plug is damaged.
  - b. Liquid has penetrated into the equipment.
  - c. The equipment has been exposed to moisture.
  - d. The equipment does not work well, or you cannot get it to work according to the user's manual.
  - e. The equipment has been dropped and damaged.
  - f. The equipment has obvious signs of breakage.
15. Do not place heavy objects on the equipment.
16. The unit uses a three-wire ground cable which is equipped with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this kind of plug, contact your electrician to replace your obsolete outlet.
17. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

## Technical Support and Assistance

1. For the most updated information of NEXCOM products, visit NEXCOM's website at [www.nexcom.com](http://www.nexcom.com).
2. For technical issues that require contacting our technical support team or sales representative, please have the following information ready before calling:
  - Product name and serial number
  - Detailed information of the peripheral devices
  - Detailed information of the installed software (operating system, version, application software, etc.)
  - A complete description of the problem
  - The exact wordings of the error messages

### Warning!

1. Handling the unit: carry the unit with both hands and handle it with care.
2. Maintenance: to keep the unit clean, use only approved cleaning products or clean with a dry cloth.

## Conventions Used in this Manual



### Warning:

Information about certain situations, which if not observed, can cause personal injury. This will prevent injury to yourself when performing a task.



### Caution:

Information to avoid damaging components or losing data.



### Note:

Provides additional information to complete a task easily.

# Global Service Contact Information

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## Package Contents

Before continuing, verify that the package you received is complete. The IPPD series package, IPPD 1600P/1800P/2100P, should have all the items listed in the table.



Note: Package contents may vary depending on your country region, some items may be optional. Please contact your local distributor for more information.

Item	Description	Qty
1	USB Touch Cable (1.8m)	1
2	VGA Cable (1.8m)	1
3	Terminal blocks 3-pin Phoenix Contact Plug	1



USB Touch Cable



VGA Cable



Terminal blocks  
3-pin Phoenix  
Contact Plug

## Ordering Information

The following provides ordering information for the Industrial Panel Display series.

- **Barebone**

**IPPD 1600P-B (P/N: 10IZ1600P01X0)**

15.6" WXGA heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

**IPPD 1800P-B (P/N: 10IZ1800P01X0)**

18.5" WXGA heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

**IPPD 2100P-B (P/N: 10IZ2100P01X0)**

21.5" Full HD heavy industrial 16:9 LED backlight P-Cap touch monitor with VGA, DVI-D and DisplayPort input, 12~24VDC input

**Optional**

- **12V, 60W AC/DC power adapter w/o power cord (P/N: 7400060031X00)**
- **1.8m DVI-D male to DVI-D male cable (P/N: 603DVI0007X00)**
- **1.8m DisplayPort cable (P/N: 6030000122X00)**

Power Adapter (P/N: 7400060019X00)

DIN Rail Power Supply (P/N: 7440060001X00)



US Power Cord (P/N: 60233POW17X00)



UK Power Cord (P/N: 60233POW19X00)



EU Power Cord (P/N: 60233POW18X00)



1.8m DVI-D Cable (P/N: 60233DVI28X00)



# CHAPTER 1: PRODUCT INTRODUCTION

## Overview - IPPD 1600P



## Key Features

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interfaces: Analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series
- Ultra slim in depth
- OSD multi-language function
- All connectors with lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~24V DC

Note: Photo is for reference. Please refer to the mechanical engineering drawing for final appearance.

## Overview - IPPD 1800P



## Key Features

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interfaces: Analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series
- Ultra slim in depth
- OSD multi-language function
- All connectors with lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~24V DC

Note: Photo is for reference. Please refer to the mechanical engineering drawing for final appearance.

## Overview - IPPD 2100P



## Key Features

- IP66 compliant and metal housing with robust aluminum front zero bezel for harsh environment
- 10 points P-Cap multi-touch with zero bezel flush front design
- 3 display input interfaces: Analog VGA/DVI-D/DisplayPort
- Shares identical appearance with IPPC series
- Ultra slim in depth
- OSD multi-language function
- All connectors with lock
- Mounting support: panel/wall/stand/VESA 100mm x 100mm
- Wide range power input 12V~24V DC

Note: Photo is for reference. Please refer to the mechanical engineering drawing for final appearance.

# Specifications

## IPPD 1600P

### Panel

- LED size: 15.6", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400cd/m<sup>2</sup>
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

### Touch Screen

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX CONTACT terminal block

### OSD Function

- OSD keypad
- Multilanguage OSD

### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 417.4 x 312.4 x 51.75mm
- Weight: 5.48kg

### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B

# Specifications

## IPPD 1800P

### Panel

- LED size: 18.5", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400cd/m<sup>2</sup>
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

### Touch Screen

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX CONTACT terminal block

### OSD Function

- OSD keypad
- Multilanguage OSD

### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12V~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 490.8 x 320.6 x 50.65mm
- Weight: 6.24kg

### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B

# Specifications

## IPPD 2100P

### Panel

- LED size: 21.5", 16:9
- Resolution: Full HD 1920 x 1080
- Luminance: 300cd/m<sup>2</sup>
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

### Touch Screen

- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

### Rear I/O

- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-Pin PHOENIX CONTACT terminal block

### OSD Function

- OSD keypad
- Multilanguage OSD

### Mechanical & Environment

- Color: Pantone 432C/RAL 70 24 front bezel
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- Vibration:
  - IEC 68 2-64
  - 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  - 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
  - IEC 68 2-27
  - HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4 x 382.4 x 50.85mm
- Weight: 7.87kg

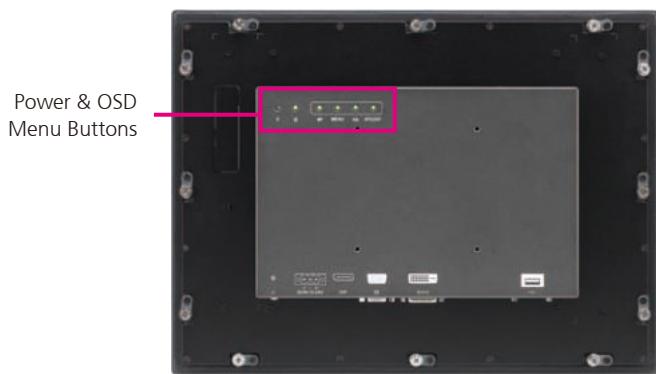
### Certifications

- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B

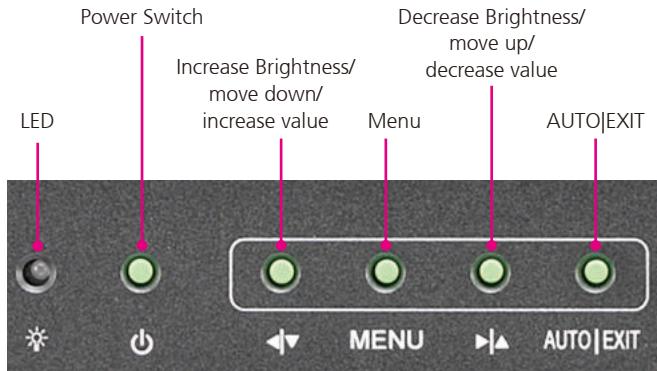


# Knowing Your IPPD Series

## Rear View



## Power & OSD Menu Button Description



### LED

Displays the power status of the display. Green LED indicates the display is switched on, if the display is not connected to a computer, the LED will flash red.

### Power Switch

Press to power-on or power-off the display.



Inside OSD menu: Press to move the selection down in OSD menu.  
Configuring options: Press to increase the value.



Inside OSD menu: Press to move the selection up in OSD menu.  
Configuring options: Press to decrease the value

### OSD Menu

No OSD Menu: Press to load the OSD menu.

Inside OSD Menu: Press to select the highlighted option in OSD menu.

### AUTO|EXIT

Press to exit the OSD menu, or return to main menu.

## Rear Bottom View



## External I/O Description



### Touchscreen Connector (USB) (Optional)

This USB connector must be attached to the USB port of the PC. The touchscreen cable is included in the accessory box.

### DVI Port (DVI-D)

Connected with a standard DVI connector through I/O port of this unit. Only supports digital signals.

### VGA Port (DB-15)

Used to connect an analog VGA monitor.

### DisplayPort

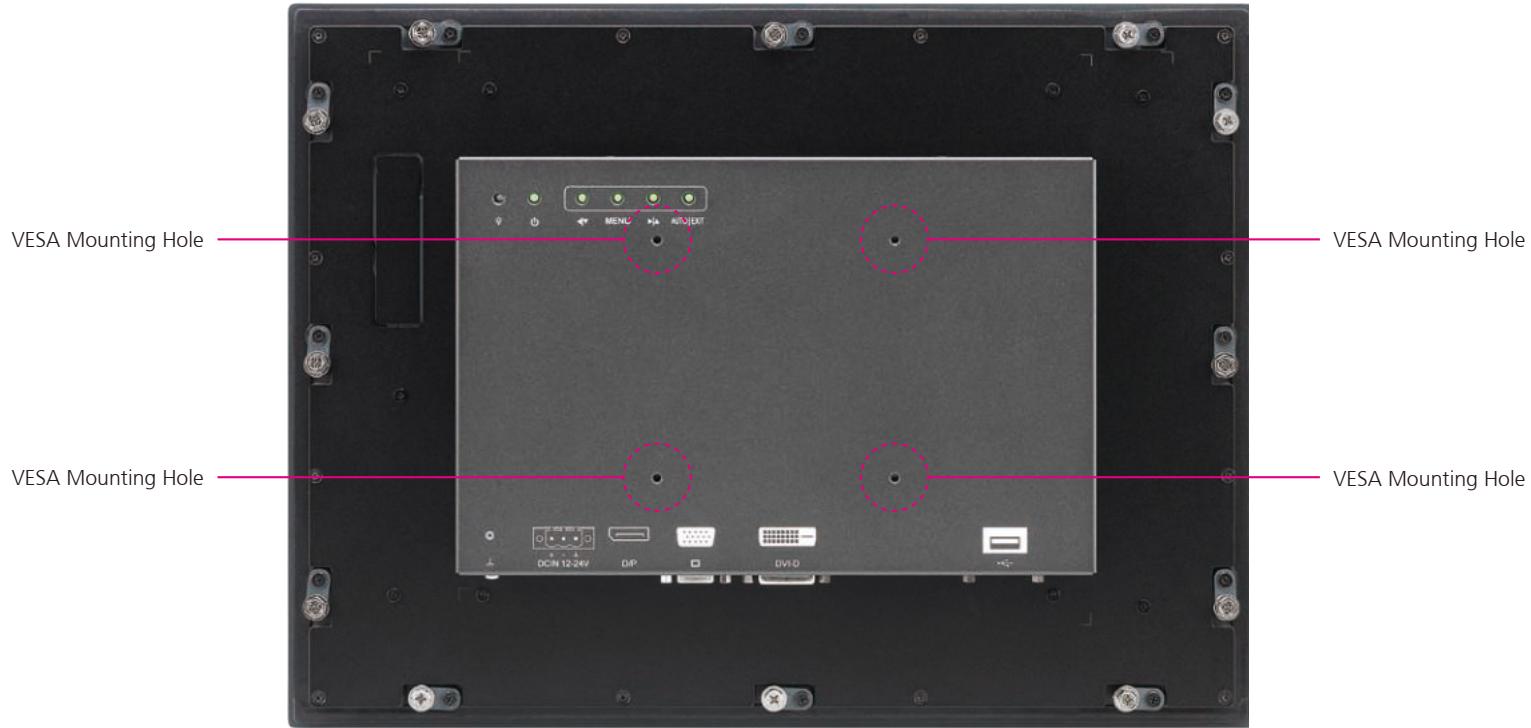
DisplayPort to connect the system with display devices.

### 12 – 24V DC Input

Terminal block socket used to plug a DC power cord.



## Rear View of IPPD 1600P



### VESA Mounting Holes

These are mounting holes for VESA mount (100x100mm)

## Rear View of IPPD 1800P

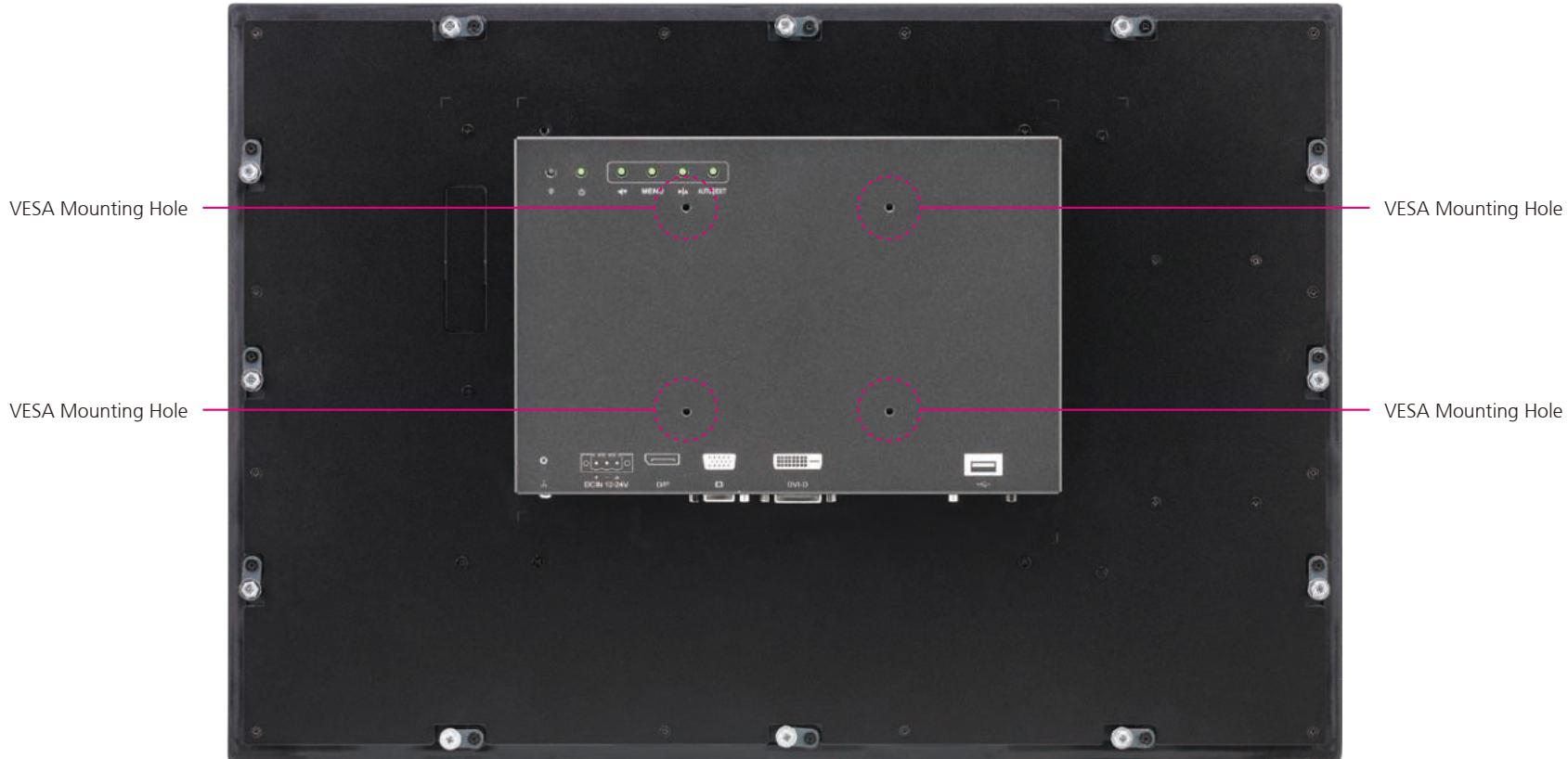


### VESA Mounting Holes

These are mounting holes for VESA mount (100x100mm)



## Rear View of IPPD 2100P

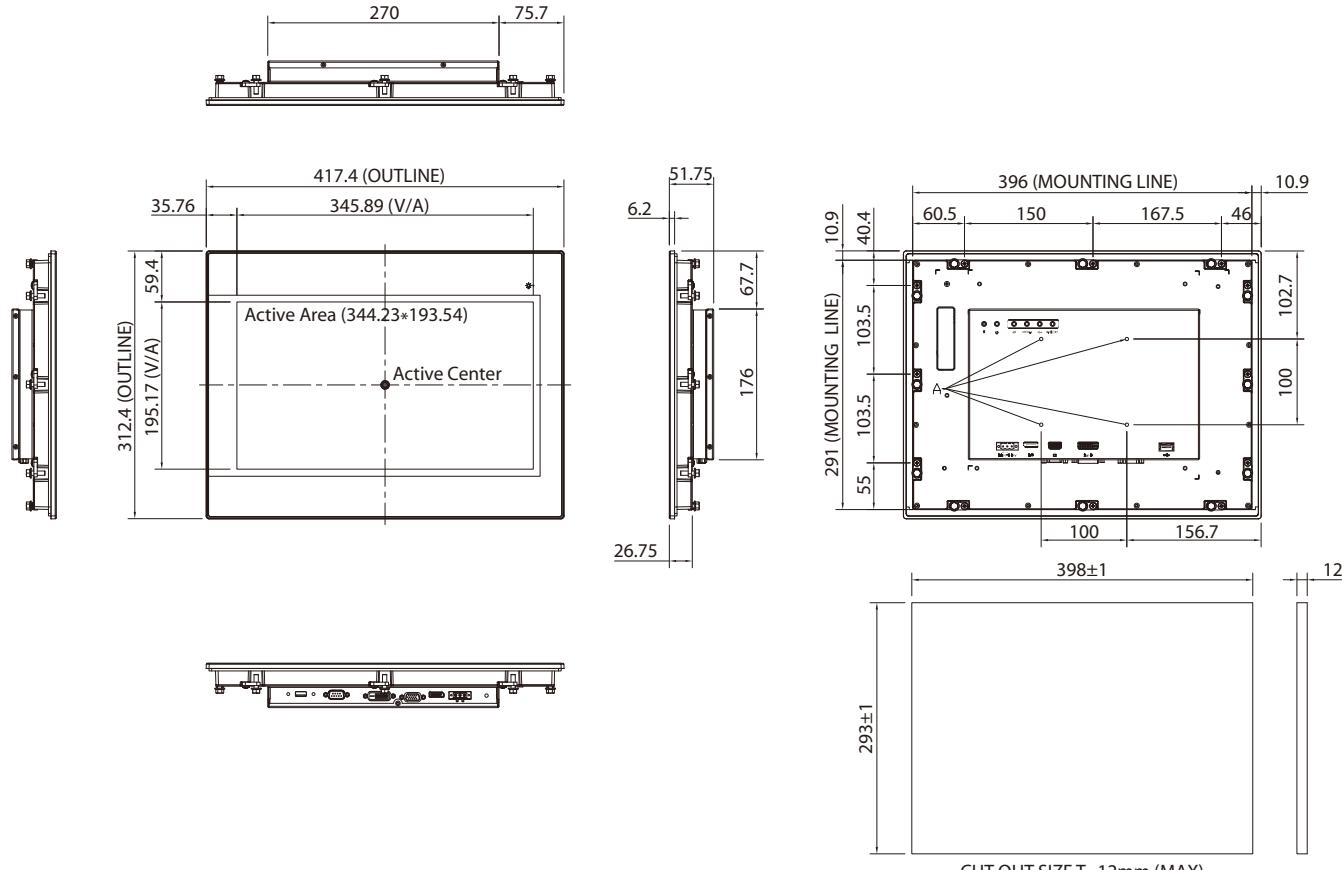


### VESA Mounting Holes

These are mounting holes for VESA mount (100x100mm)

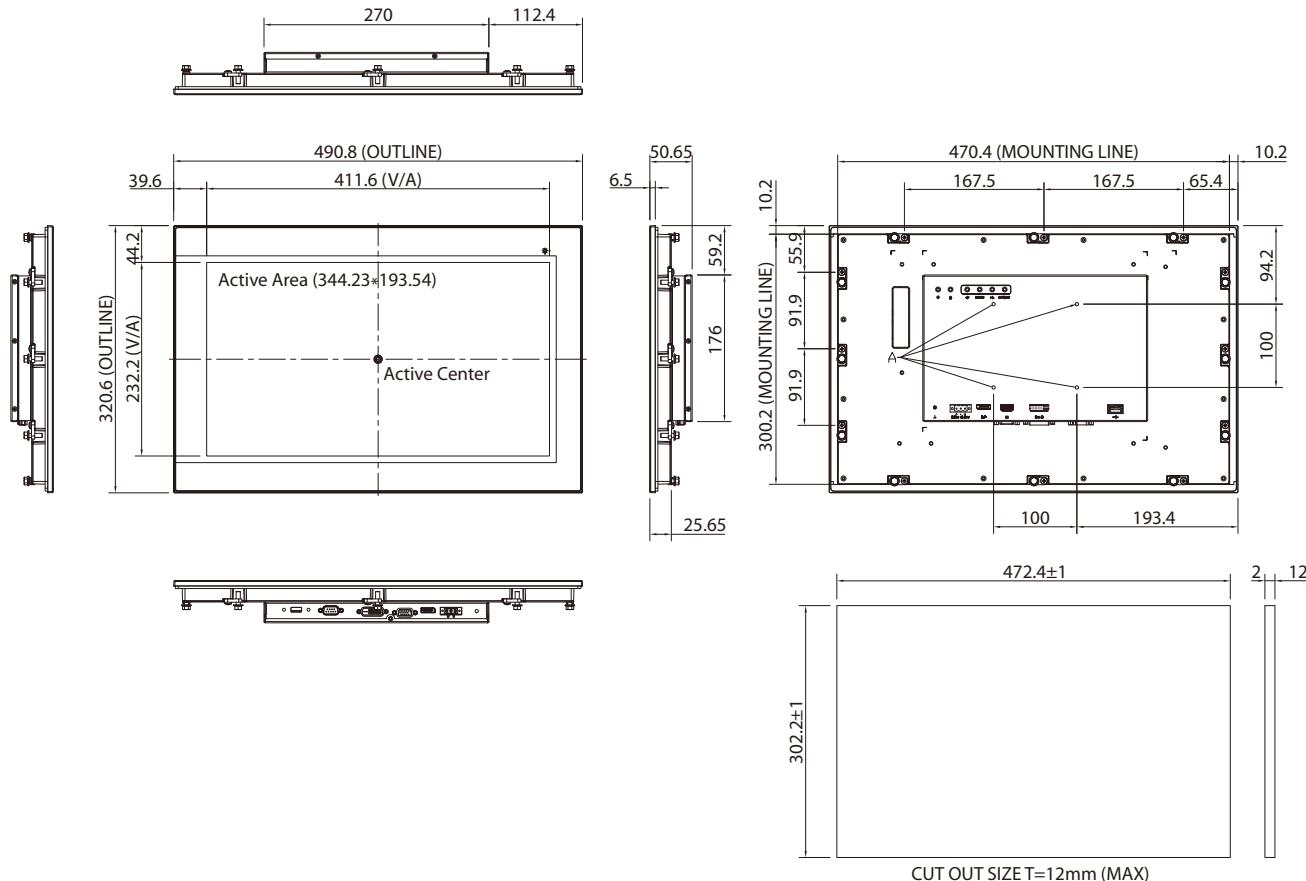
## Mechanical Dimensions

### IPPD 1600P

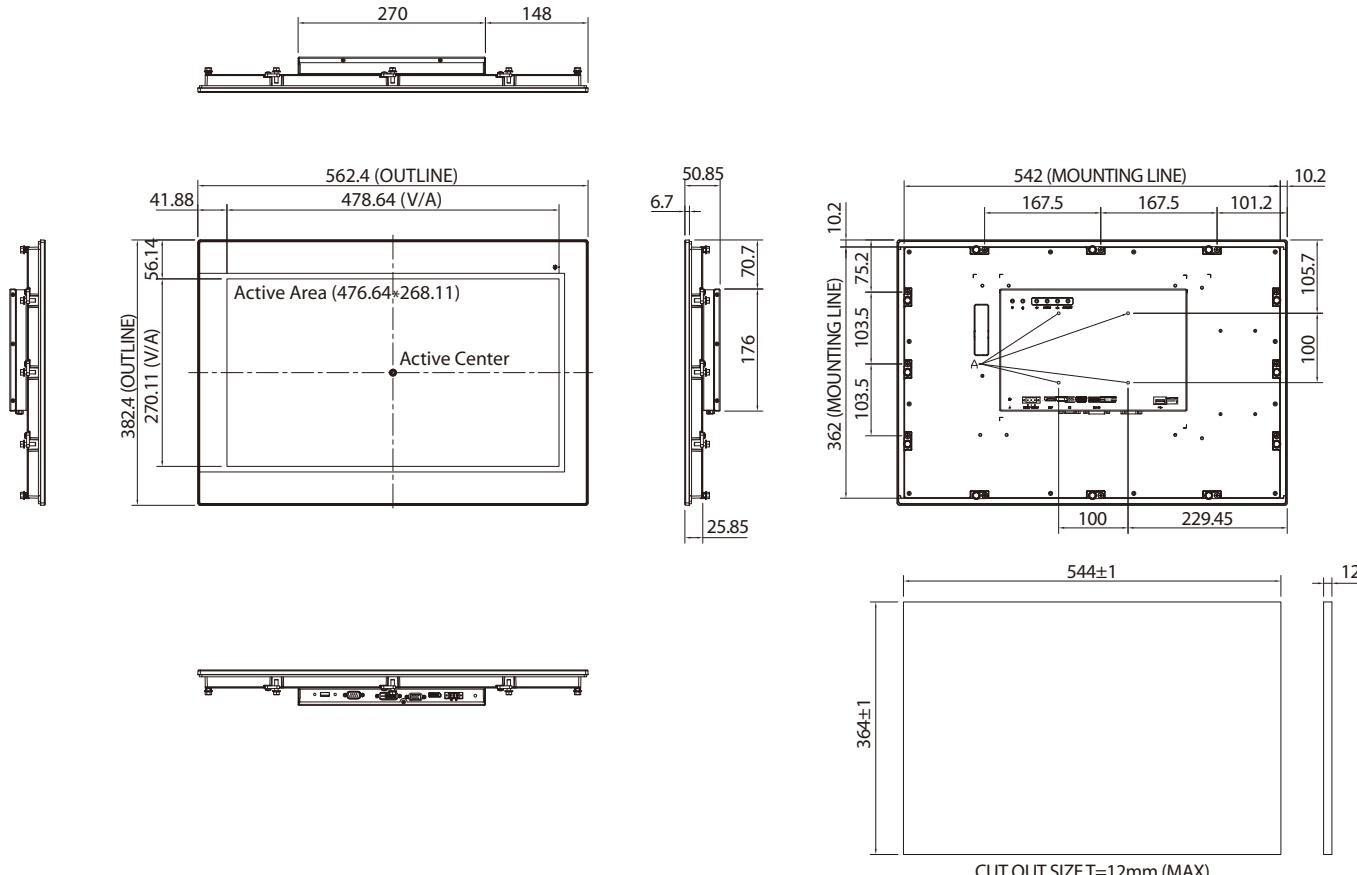




## IPPD 1800P



## IPPD 2100P



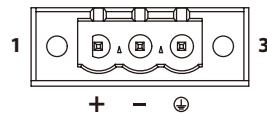


# CHAPTER 2: CONNECTOR PIN DEFINITIONS

## External I/O Interfaces

### 12V-24V DC Power Input

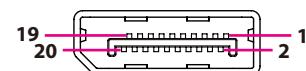
Connector type: Phoenix Contact 1x3 3-pin terminal block



Pin	Definition
1	+
2	-
3	GND

### DisplayPort

Connector type: DisplayPort

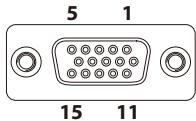


Pin	Definition	Pin	Definition
1	LANE0_P	2	GND
3	LANE0_N	4	LANE1_P
5	GND	6	LANE1_N
7	LANE2_P	8	GND
9	LANE2_N	10	LANE3_P
11	GND	12	LANE3_N
13	CONFIG1	14	CONFIG2
15	AUX_CH_P	16	GND
17	AUX_CH_N	18	HPD
19	RETURN	20	DP_PWR



## VGA Port

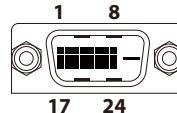
Connector type: DB-15 port, 15-pin D-Sub



Pin	Definition	Pin	Definition
1	RED	2	GREEN
3	BLUE	4	ID2
5	GND	6	RGND
7	GGND	8	BGND
9	KEY	10	SGND
11	ID0	12	SDA
13	HSYNC or CSYNC	14	VSYNC
15	SCL		

## DVI Port (DVI-D)

Connector type: 24-pin D-Sub, 2.0mm-M-180 (DVI)



Pin	Definition	Pin	Definition
1	TMDS Data 2-	2	TMDS Data 2+
3	Shield	4	NC
5	NC	6	DDC clock
7	DDC data	8	Reserved
9	TMDS Data 1-	10	TMDS Data 1+
11	Shield	12	NC
13	NC	14	+5V
15	GND	16	Hot plug detect
17	TMDS data 0-	18	TMDS data 0+
19	Shield	20	NC
21	NC	22	Shield
23	TMDS clock+	24	TMDS clock-
C1	NC	C2	NC
C3	NC	C4	NC
C5	NC		



## USB Port

Connector type: USB port



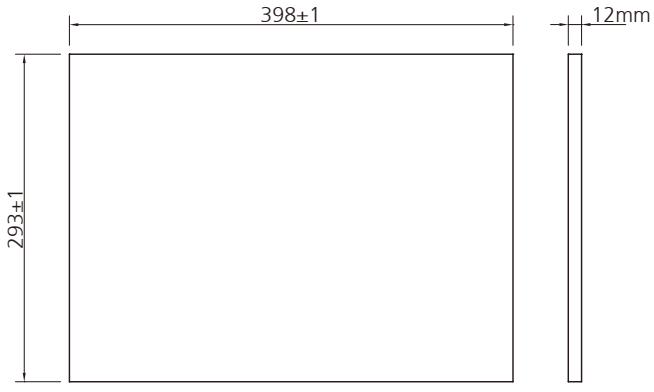
Pin	Definition
1	VCC5
2	DATA_N
3	DATA_P
4	GND

# CHAPTER 3: SYSTEM SETUP

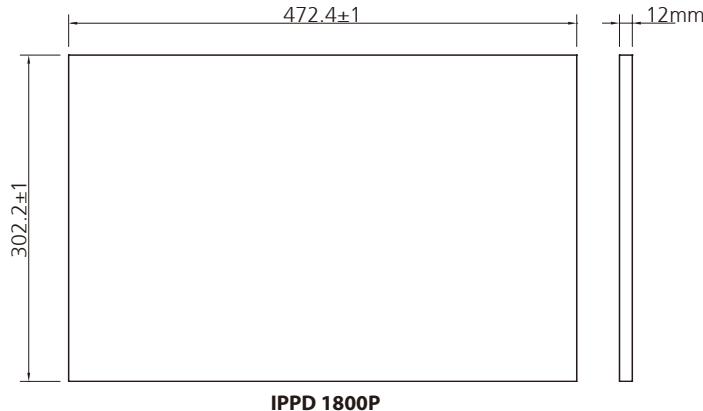
## Panel Mounting

1. Select a place on the panel where you will mount the Industrial Touch Monitor.
2. Cut out a shape on the panel that corresponds to the Industrial Touch Monitor's rear dimensions.

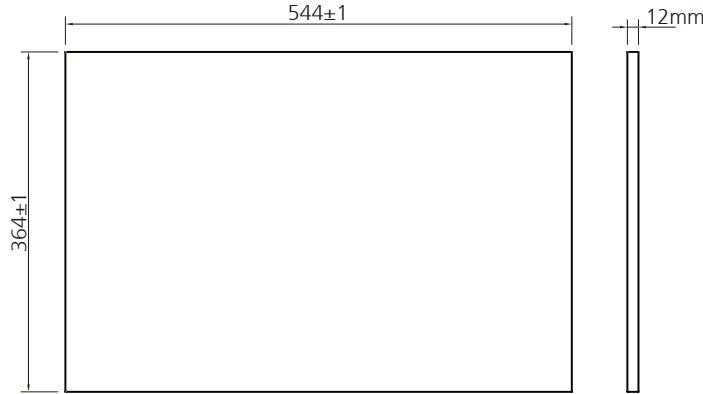
The thickness of the panel (e.g. steel board, plank, acrylic board, wall, etc.) where you will mount the Industrial Touch Monitor must not exceed 12mm. If the distance between the front bezel and panel mount hole is too wide, it will not fit the panel mount kit.



**IPPD 1600P**



**IPPD 1800P**



**IPPD 2100P**



3. Slide the Industrial Touch Monitor through the hole until it is properly fitted against the panel.
4. Position the mounting clamps along the rear edges of the Industrial Touch Monitor. The first and second clamps must be positioned and secured diagonally prior to mounting the rest of the clamps. Tighten the clamp's screw until it touches the panel.



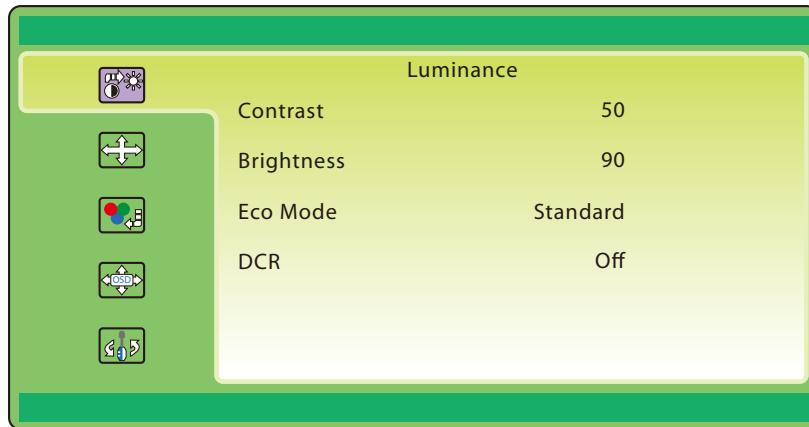
Do not overtighten the screws to prevent damaging the Panel PC.

# CHAPTER 4: ADJUSTING THE DISPLAY

## OSD Menu Functions

The On Screen Display (OSD) menu provides options to adjust the display. Press the MENU button on the back of the display panel to open the OSD menu. Refer to the images below for each OSD menu option.

### 1. Luminance



### Contrast





## Brightness

to increase the brightness.

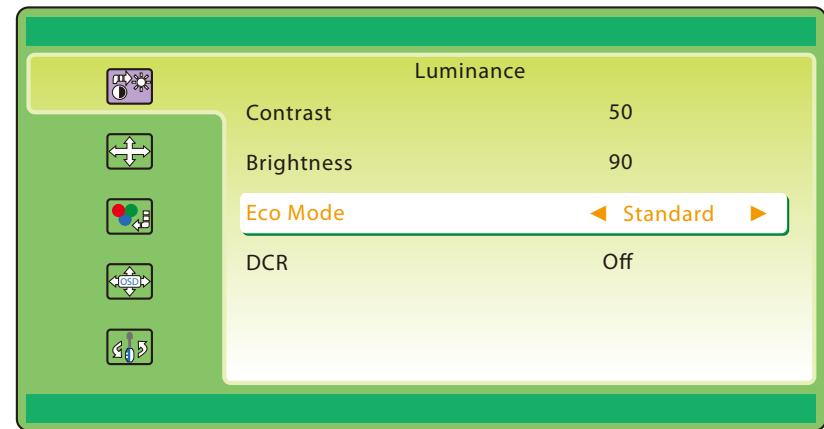
to decrease the brightness.



## Eco Mode

to scroll left to change between the Eco Mode settings.

to scroll right to change between the Eco Mode settings.



The following Eco Mode options are available: Text, Standard, Sports, Movie, Game and Internet.



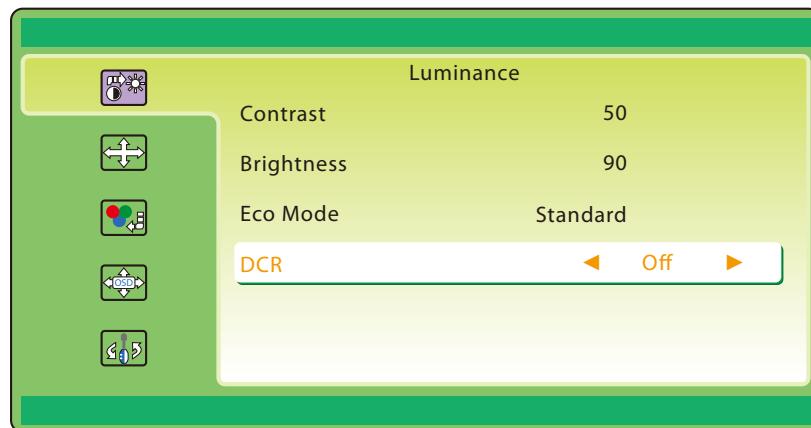
## DCR



DCR On or Off.



DCR On or Off.





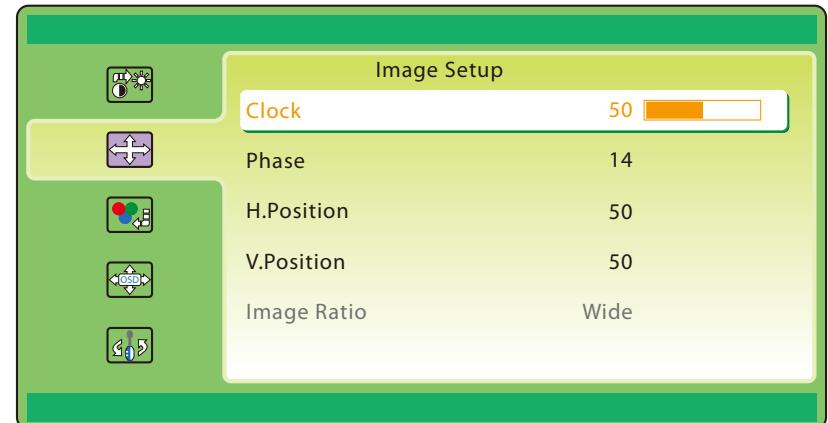
## 2. Image Setup



### Clock

stretch  
the screen towards right.

stretch  
the screen towards left.





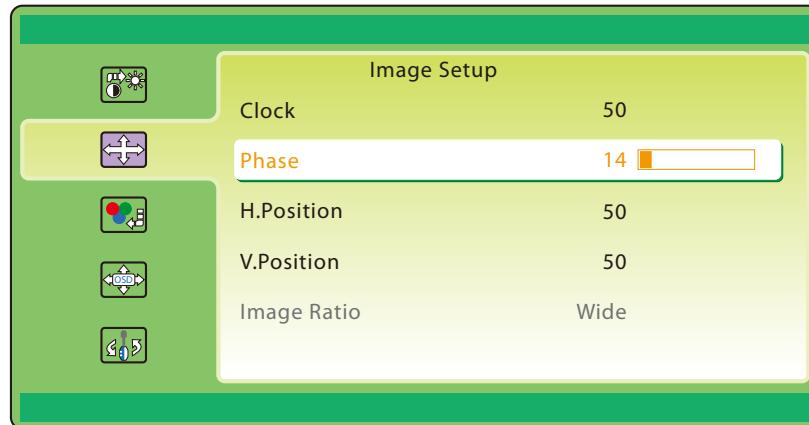
## Phase



to increase the phase value.



to decrease the phase value.



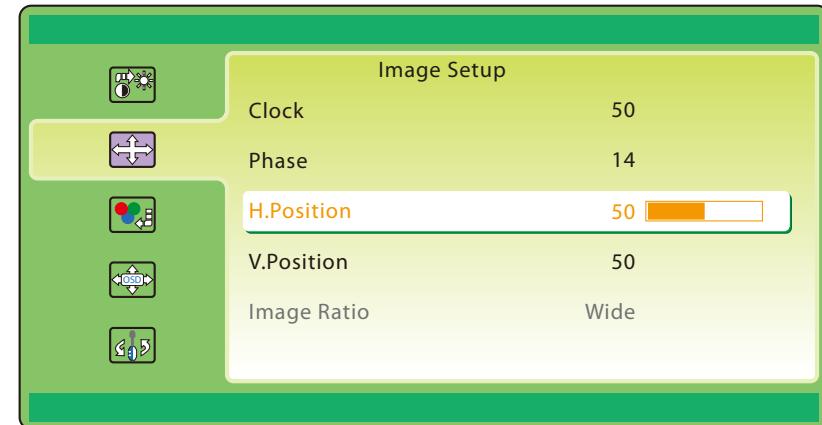
## H. Position



to move the screen towards right.



to move the screen towards left.





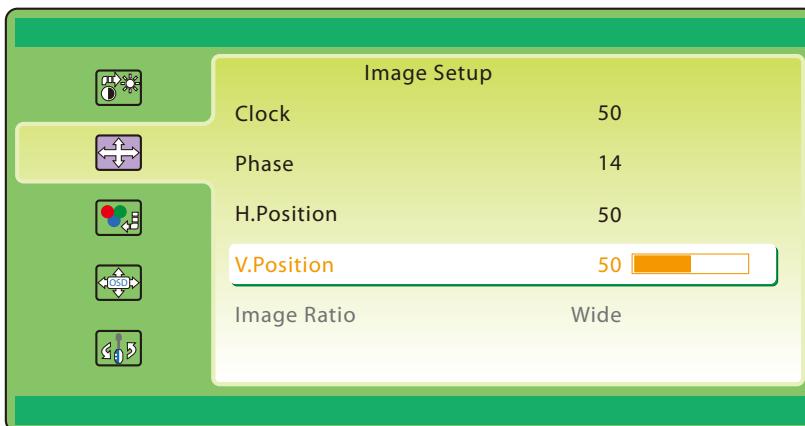
## V. Position



to move the screen up.

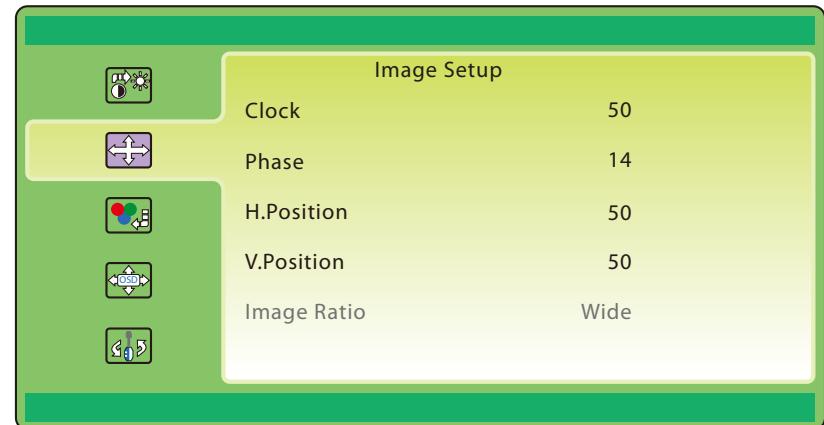


to move the screen down.

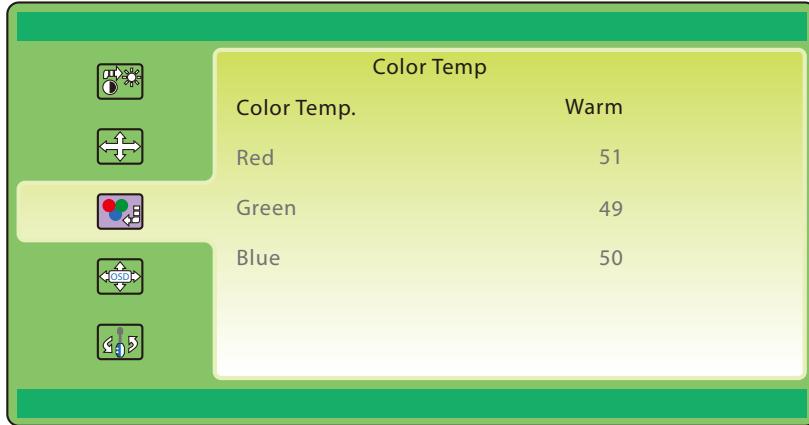


## Image Ratio

Displays the current image ratio.



### 3. Color Temperature



### Color Temperature



to scroll right to change between the Color Temp. settings.



to scroll left to change between the Color Temp. settings.



The following color temperature options are available: Warm, Normal, Cool, User and sRGB. To configure the RGB values manually, select **User** from the Color Temp. options.



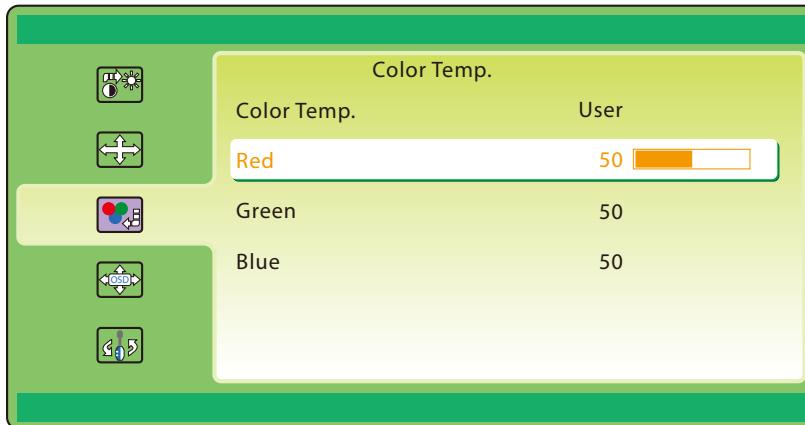
## Color Temperature (User Defined)

luminance Color Temp. Red to

increase the value.

luminance Color Temp. Red to

decrease the value.



## 4. OSD Setup



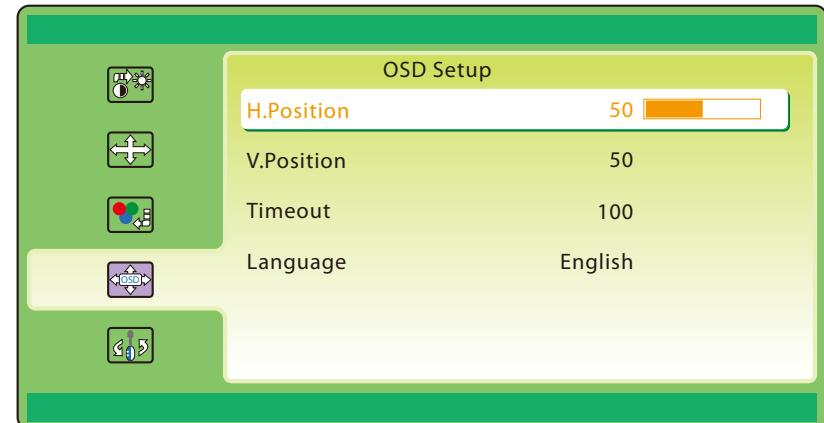
### H. Position



to move the OSD screen towards right.



to move the OSD screen towards left.





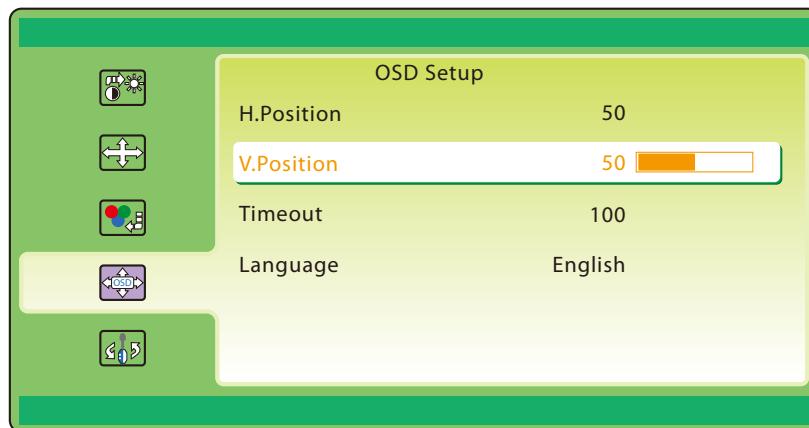
## V. Position



to move the OSD screen up.



to move the OSD screen down.



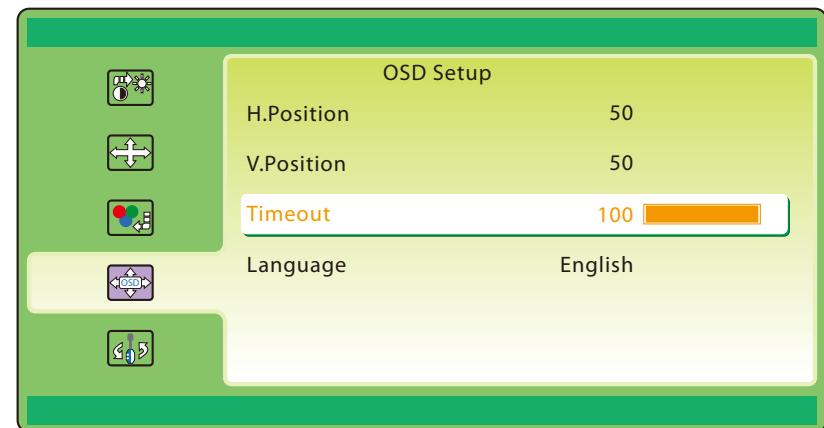
## Timeout



to increase the OSD screen timeout value.



to decrease the OSD screen timeout value.





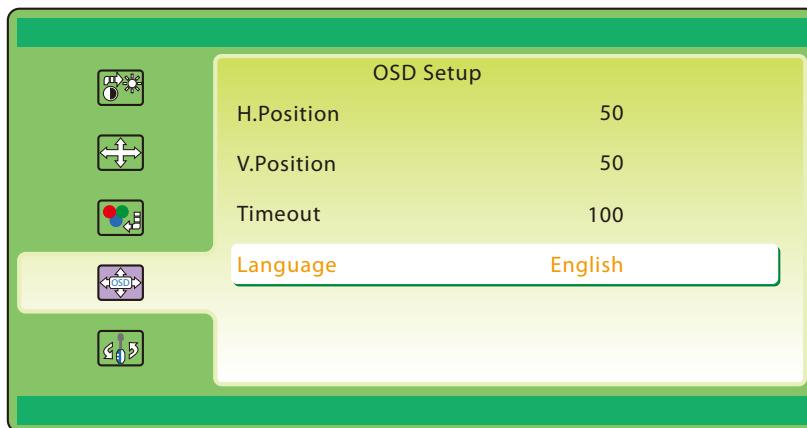
## Language



to scroll right to change between the language settings.



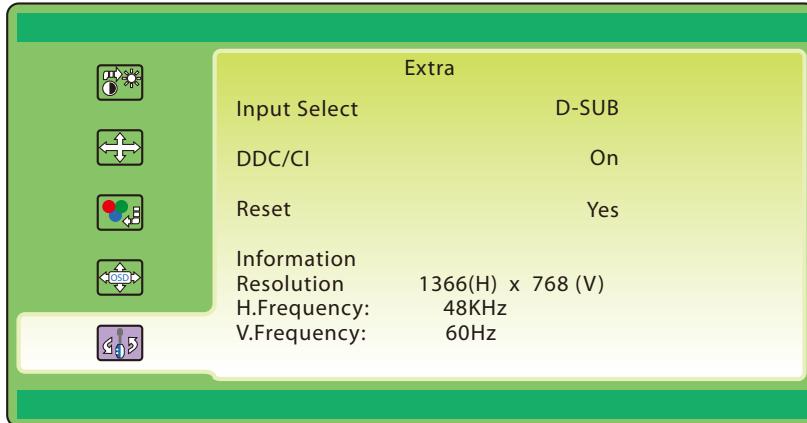
to scroll left to change between the language settings.



The following languages are available: English, Simplified Chinese, Traditional Chinese, Korean, Russian, Portuguese, French and Spanish.



## 5. Extra



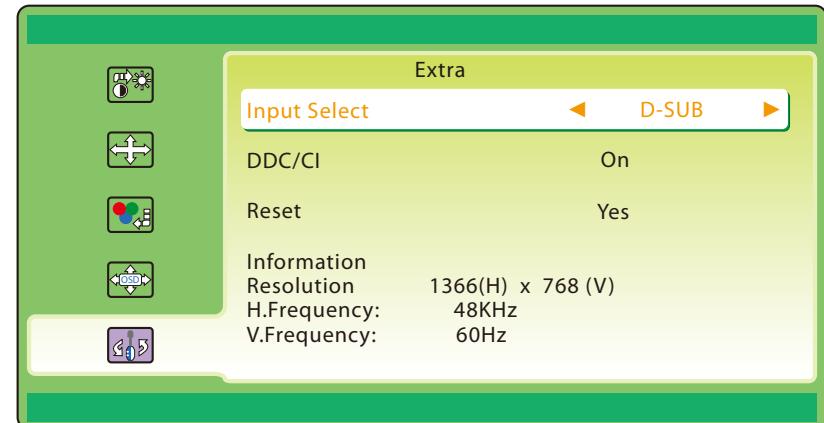
### Input Select



to scroll right to change between D-SUB, DisplayPort or DVI as input.



to scroll left to change between D-SUB, DisplayPort or DVI as input.

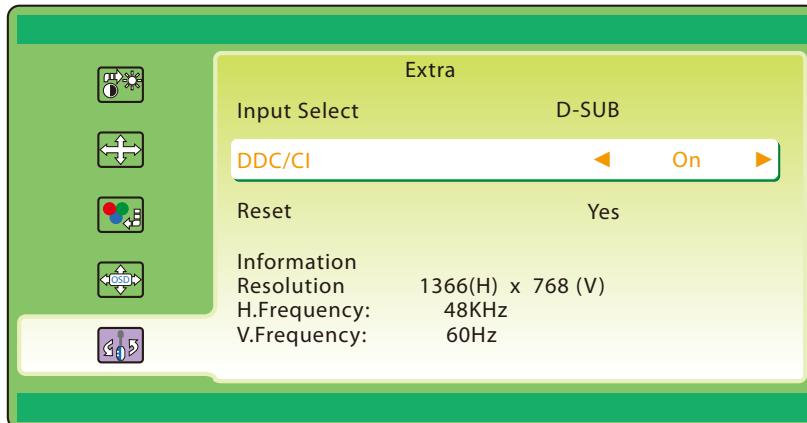




## DDC/CI

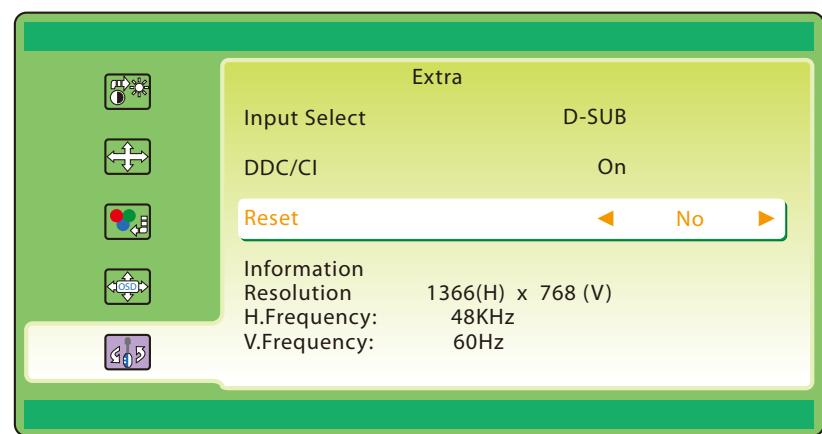
to scroll right to turn DDC/CI On or Off.

to scroll left to turn DDC/CI On or Off.



## Reset

to scroll to YES to restore factory default settings, or NO to abort it.





# APPENDIX A: EXTENDED DISPLAY IDENTIFICATION DATA TIMING SUPPORT

## IPPD 1600P/1800P

VGA		DVI		DisplayPort	
Resolution	Frequency	Resolution	Frequency	Resolution	Frequency
640 x 480	60Hz	640 x 480	60Hz	640 x 480	60Hz
640 x 480	72Hz	640 x 480	72Hz	640 x 480	72Hz
640 x 480	75Hz	640 x 480	75Hz	640 x 480	75Hz
720 x400	70Hz	720 x400	70Hz	720 x400	70Hz
800 x 600	56Hz	800 x 600	56Hz	800 x 600	56Hz
800 x 600	60Hz	800 x 600	60Hz	800 x 600	60Hz
800 x 600	72Hz	800 x 600	72Hz	800 x 600	72Hz
800 x 600	75Hz	800 x 600	75Hz	800 x 600	75Hz
1024 x 768	60Hz	1024 x 768	60Hz	1024 x 768	60Hz
1024 x 768	70Hz	1024 x 768	70Hz	1024 x 768	70Hz
1024 x 768	75Hz	1024 x 768	75Hz	1024 x 768	75Hz
1152 x 864	60Hz	1152 x 864	60Hz	1152 x 864	60Hz
1280 x 960	60Hz	1280 x 960	60Hz	1280 x 960	60Hz
1280 x 1024	60Hz	1280 x 1024	60Hz	1280 x 1024	60Hz
1280 x 1024	75Hz	1280 x 1024	75Hz	1280 x 1024	75Hz
1366 x 768	60Hz	1366 x 768	60Hz	1366 x 768	60Hz

**IPPD 2100P**

<b>VGA</b>		<b>DVI</b>		<b>DisplayPort</b>	
<b>Resolution</b>	<b>Frequency</b>	<b>Resolution</b>	<b>Frequency</b>	<b>Resolution</b>	<b>Frequency</b>
640 x 480	60Hz	640 x 480	60Hz	640 x 480	60Hz
640 x 480	72Hz	640 x 480	72Hz	640 x 480	72Hz
640 x 480	75Hz	640 x 480	75Hz	640 x 480	75Hz
720 x400	70Hz	720 x400	70Hz	720 x400	70Hz
800 x 600	56Hz	800 x 600	56Hz	800 x 600	56Hz
800 x 600	60Hz	800 x 600	60Hz	800 x 600	60Hz
800 x 600	72Hz	800 x 600	72Hz	800 x 600	72Hz
800 x 600	75Hz	800 x 600	75Hz	800 x 600	75Hz
1024 x 768	60Hz	1024 x 768	60Hz	1024 x 768	60Hz
1024 x 768	70Hz	1024 x 768	70Hz	1024 x 768	70Hz
1024 x 768	75Hz	1024 x 768	75Hz	1024 x 768	75Hz
1152 x 864	60Hz	1152 x 864	60Hz	1152 x 864	60Hz
1280 x 960	60Hz	1280 x 960	60Hz	1280 x 960	60Hz
1280 x 1024	60Hz	1280 x 1024	60Hz	1280 x 1024	60Hz
1280 x 1024	75Hz	1280 x 1024	75Hz	1280 x 1024	75Hz
1366 x 768	60Hz	1366 x 768	60Hz	1366 x 768	60Hz
1600 x 900	60Hz	1600 x 900	60Hz	1600 x 900	60Hz
1920 x 1080	60Hz	1920 x 1080	60Hz	1920 x 1080	60Hz