MTD-6000 USER Manual

Multi-Touch 16:9 Full HD Projected Capacitive Industrial Display
15"/17"/19"/21.5"/24", Front Panel IP65 Waterproof

Vecow

1.2.0 Edition 20230420

Record of Revision

Version	Date	Page	Description	Remark
1.00	2020/03/02	All	Official Release	
1.10	2020/06/04	4, 5	Update	
1.20	2023/04/20	12	Update	

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Declaration of Conformity

FCC

This equipment has been tested and found to comply with the limits for a Class A 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 it is not installed and used in accordance with the instruction manual, it 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.

CE

The products described in this manual comply 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.

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Order Information

Part Number	Description
MTD-6015	15” Multi-Touch 4:3 HD Projected Capacitive Industrial Display, Front Panel IP65 Waterproof
MTD-6017	17” Multi-Touch 4:3 HD Projected Capacitive Industrial Display, Front Panel IP65 Waterproof
MTD-6019	19” Multi-Touch 4:3 HD Projected Capacitive Industrial Display, Front Panel IP65 Waterproof
MTD-6021	21” Multi-Touch 16:9 Full HD Projected Capacitive Industrial Display, Front Panel IP65 Waterproof
MTD-6024	24” Multi-Touch 16:9 Full HD Projected Capacitive Industrial Display, Front Panel IP65 Waterproof

Optional Accessories

Part Number	Description
PWA-60WP3	60W, 12V, 90V AC to 264V AC Power Adaptor for 3-pin 5.0mm Terminal Block
VESA Stand	VESA Table Stand

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1

GENERAL INTRODUCTION

1.1 Overview

Vecow's MTD-6000 series multi-touch display with wide range of industrial grade LCD sizes including 15", 17",19", 21.5" and 24" are designed for industrial and IoT applications with IP65 front bezel design and wide operation temperature design.

Designed with projected capacitive touch with 10 points multi-touch functionality with zoom-in/zoom-out/rotation and enables users easier to find the data they need compared to traditional touchscreens. To facilitate intuitive gestures and increase efficiency, there is no need for another converter but through a USB cable to connect embedded PC or motherboard to MTD-6000 Series. Furthermore, MTD-6000 Series is 7H anti-scratch surface design for harsh and hazardous environments.

MTD-6000 series provide multiple I/O input ports with 1 VGA and 1 DVI inputs, and 3-pin terminal black connector for 12V DC power input. With internal speakers, VESA mount and Penal mount, Vecow MTD-6000 Series are ideal display for industrial deployment and solutions in smart manufacturing for HMI and AOI scenarios, gaming, intelligent surveillance, infotainment system, medical and AIoT /Industry 4.0 applications.

1.2 Features

- 15" to 24" Multi-touch LCD Display
- 10-point Projected Capacitive Multi-Touch Screen
- 7H Hardness Anti-Scratch Surface
- Supports VGA, DVI-D Interface
- Landscape Mode and Portrait Mode supported
- Mounting : VESA Mount, Panel Mount
- IP65 Front Panel Design compliance
- Build-in speakers

1.3 Product Specification

1.3.1 Specifications of MTD-6015

Panel	
Type	TFT-LCD
Viewable Size	15” (4:3)
Resolution	1024 x 768
Display Color	16.7M (RGB 8-bit)
Backlight	LED
Brightness	250
Contrast Ratio	600:1
Touch	
Type	10 points projected capacitive touch
Transparency	≥85%
Surface Hardness	7H surface hardness
Control Interface	USB interface
I/O Interface	
VGA	DB15 Type VGA Port
DVI-I	DVI-D: Up to 1920 x 1080 @60Hz
Touchscreen Connector	Type A USB to enable touch screen function
OSD	5 Key On Screen Display for function management, support multi language
Power	
Power Input	Single 12V DC power input
Power Interface	3-pin terminal block : V+, V-, frame Ground
Mechanical	
Dimension	360.9 x 277.8 x 54 mm (14.21" x 10.94" x 2.13")
Weight	3.5kg (7.72 lb)
Mounting	• Panel mount by mounting Kit • VESA mount (75 x 75mm, 100 x 100mm)
Environment	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	5% to 90% Humidity, non-condensing
Relative Humidity	95% at 65°C
Shock	• IEC 60068-2-27 • 20G, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • Non-operation: 10Hz to 200 Hz 1.5Grms, X, Y, Z,30 mins each Axis
EMC	CE, FCC
Others	Build-in speakers

1.3.2 Specifications of MTD-6017

Panel	
Type	TFT-LCD
Viewable Size	17” (4:3)
Resolution	1280 x 1024
Display Color	16.7M (RGB 8-bit)
Backlight	LED
Brightness	250
Contrast Ratio	1000:1
Touch	
Type	10 points projected capacitive touch
Transparency	≥85%
Surface Hardness	7H surface hardness
Control Interface	USB interface
I/O Interface	
VGA	DB15 Type VGA Port
DVI-I	DVI-D: Up to 1920 x 1080 @60Hz
Touchscreen Connector	Type A USB to enable touch screen function
OSD	5 Key On Screen Display for function management, support multi language
Power	
Power Input	Single 12V DC power input
Power Interface	3-pin terminal block : V+, V-, frame Ground
Mechanical	
Dimension	360.9 x 277.8 x 54 mm (14.21" x 10.94" x 2.13")
Weight	3.5kg (7.72 lb)
Mounting	• Panel mount by mounting Kit • VESA mount (75 x 75mm, 100 x 100mm)
Environment	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	5% to 90% Humidity, non-condensing
Relative Humidity	95% at 65°C
Shock	• IEC 60068-2-27 • 20G, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • Non-operation: 10Hz to 200 Hz 1.5Grms, X, Y, Z,30 mins each Axis
EMC	CE, FCC
Others	Build-in speakers

1.3.3 Specifications of MTD-6019

Panel	
Type	TFT-LCD
Viewable Size	19” (4:3)
Resolution	1280 x 1024
Display Color	16.7M (RGB 8-bit)
Backlight	LED
Brightness	250
Contrast Ratio	1000:1
Touch	
Type	10 points projected capacitive touch
Transparency	≥85%
Surface Hardness	7H surface hardness
Control Interface	USB interface
I/O Interface	
VGA	DB15 Type VGA Port
DVI-I	DVI-D: Up to 1920 x 1080 @60Hz
Touchscreen Connector	Type A USB to enable touch screen function
OSD	5 Key On Screen Display for function management, support multi language
Power	
Power Input	Single 12V DC power input
Power Interface	3-pin terminal block : V+, V-, frame Ground
Mechanical	
Dimension	360.9 x 277.8 x 54 mm (14.21" x 10.94" x 2.13")
Weight	3.5kg (7.72 lb)
Mounting	• Panel mount by mounting Kit • VESA mount (75 x 75mm, 100 x 100mm)
Environment	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	5% to 90% Humidity, non-condensing
Relative Humidity	95% at 65°C
Shock	• IEC 60068-2-27 • 20G, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • Non-operation: 10Hz to 200 Hz 1.5Grms, X, Y, Z,30 mins each Axis
EMC	CE, FCC
Others	Build-in speakers

1.3.4 Specifications of MTD-6021

Panel	
Type	TFT-LCD
Viewable Size	21” (16:9)
Resolution	1920 x 1080(Full HD)
Display Color	16.7M (RGB 8-bit)
Backlight	LED
Brightness	250
Contrast Ratio	3000:1
Touch	
Type	10 points projected capacitive touch
Transparency	≥85%
Surface Hardness	7H surface hardness
Control Interface	USB interface
I/O Interface	
VGA	DB15 Type VGA Port
DVI-I	DVI-D: Up to 1920 x 1080 @60Hz
Touchscreen Connector	Type A USB to enable touch screen function
OSD	5 Key On Screen Display for function management, support multi language
Power	
Power Input	Single 12V DC power input
Power Interface	3-pin terminal block : V+, V-, frame Ground
Mechanical	
Dimension	360.9 x 277.8 x 54 mm (14.21" x 10.94" x 2.13")
Weight	3.5kg (7.72 lb)
Mounting	• Panel mount by mounting Kit • VESA mount (75 x 75mm, 100 x 100mm)
Environment	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	5% to 90% Humidity, non-condensing
Relative Humidity	95% at 65°C
Shock	• IEC 60068-2-27 • 20G, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • Non-operation: 10Hz to 200 Hz 1.5Grms, X, Y, Z,30 mins each Axis
EMC	CE, FCC
Others	Build-in speakers

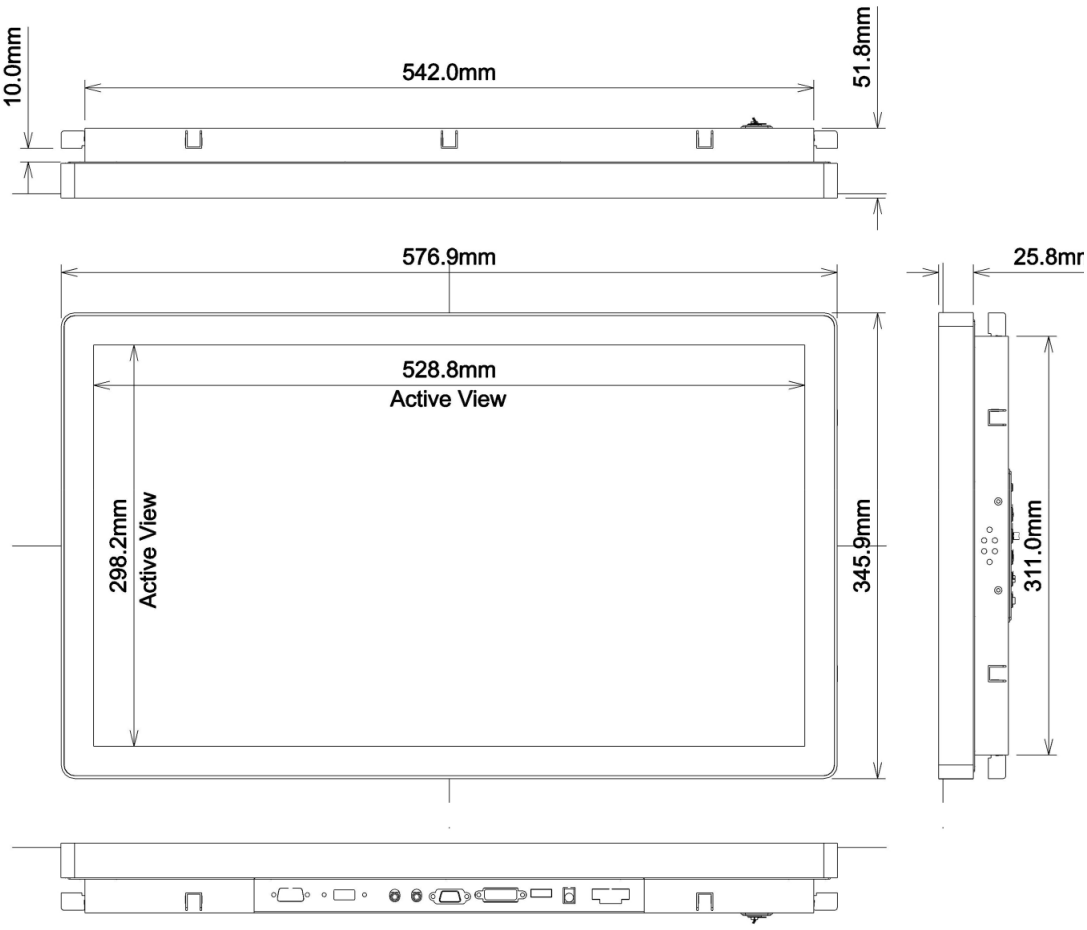
1.3.5 Specifications of MTD-6024

Panel	
Type	TFT-LCD
Viewable Size	24” (16:9)
Resolution	1920 x 1080(Full HD)
Display Color	16.7M (RGB 8-bit)
Backlight	LED
Brightness	250
Contrast Ratio	3000:1
Touch	
Type	10 points projected capacitive touch
Transparency	≥85%
Surface Hardness	7H surface hardness
Control Interface	USB interface
I/O Interface	
VGA	DB15 Type VGA Port
DVI-I	DVI-D: Up to 1920 x 1080 @60Hz
Touchscreen Connector	Type A USB to enable touch screen function
OSD	5 Key On Screen Display for function management, support multi language
Power	
Power Input	Single 12V DC power input
Power Interface	3-pin terminal block : V+, V-, frame Ground
Mechanical	
Dimension	360.9 x 277.8 x 54 mm (14.21" x 10.94" x 2.13")
Weight	3.5kg (7.72 lb)
Mounting	• Panel mount by mounting Kit • VESA mount (75 x 75mm, 100 x 100mm)
Environment	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	5% to 90% Humidity, non-condensing
Relative Humidity	95% at 65°C
Shock	• IEC 60068-2-27 • 20G, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • Non-operation: 10Hz to 200 Hz 1.5Grms, X, Y, Z,30 mins each Axis
EMC	CE, FCC
Others	Build-in speakers

1.4 Mechanical Dimension

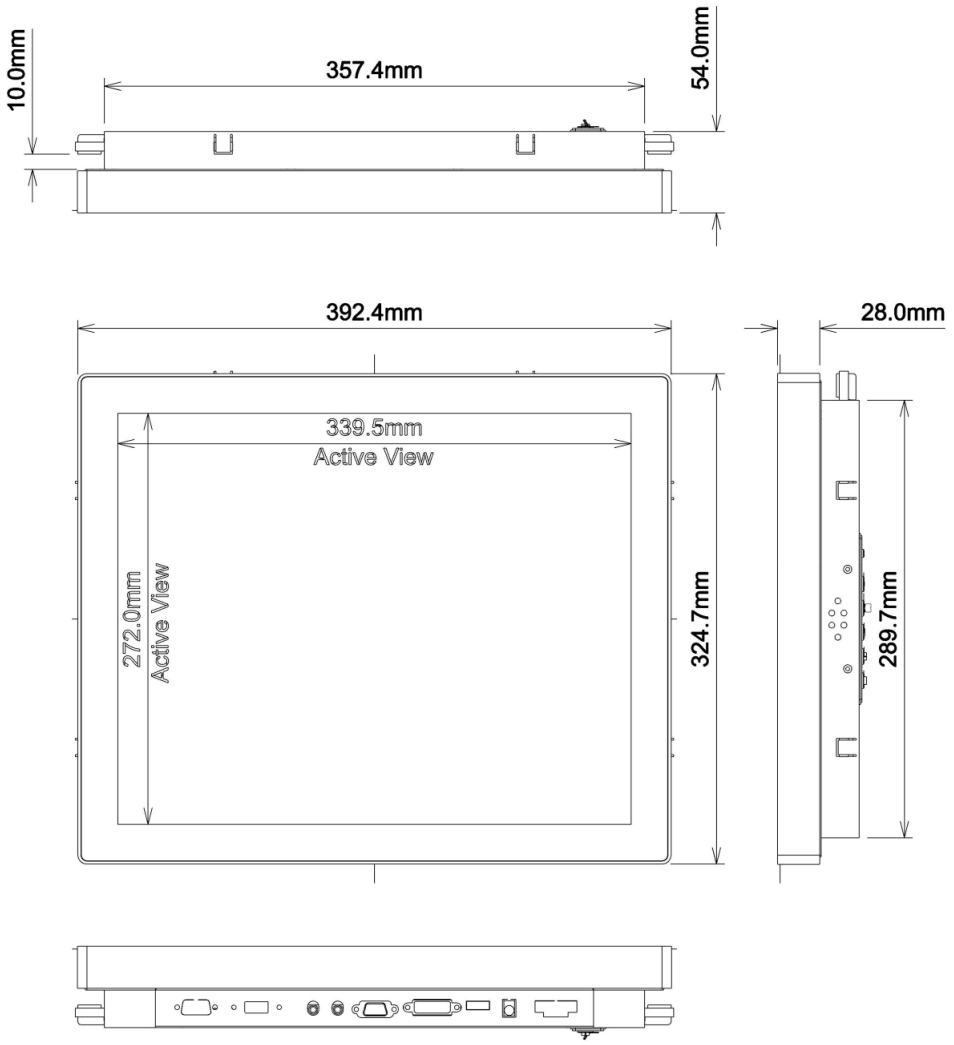
1.4.1 Dimensions of MTD-6015

Unit : mm (inch)



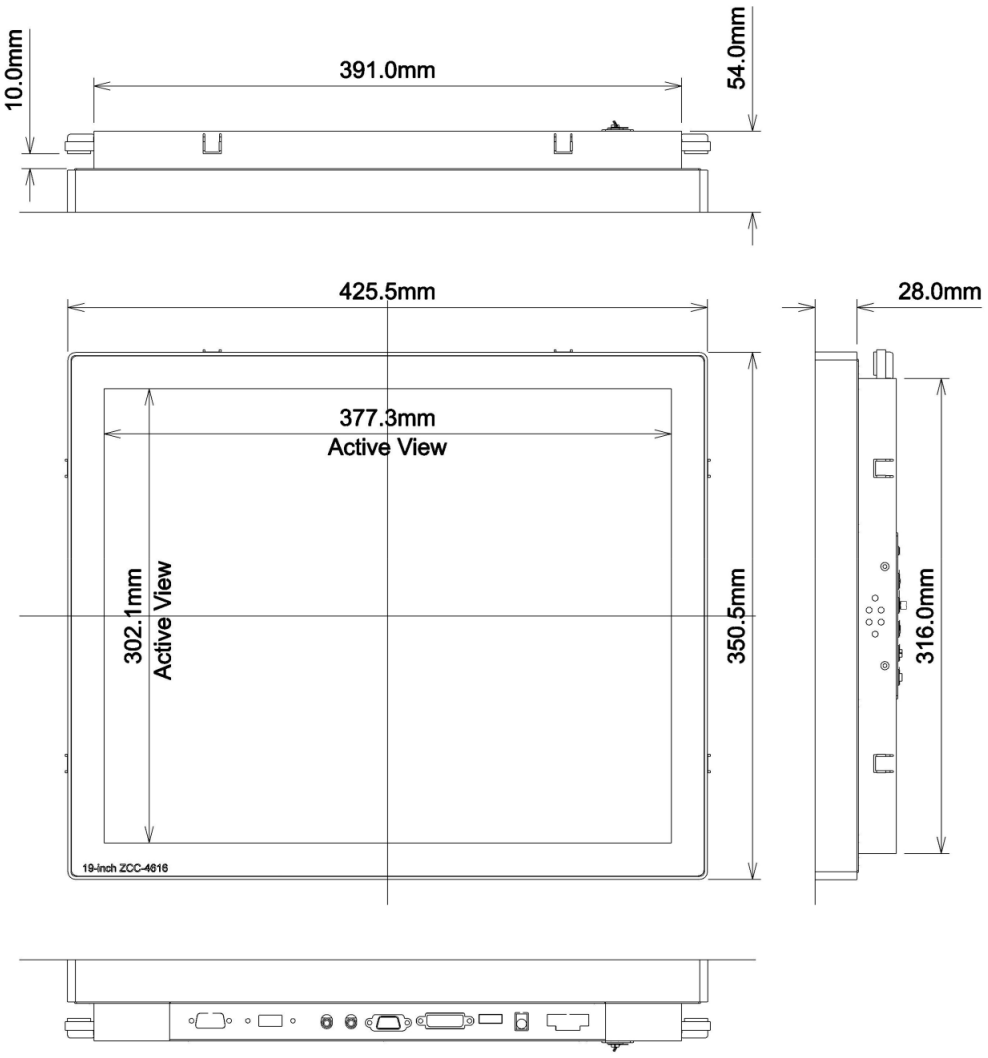
1.4.2 Dimensions of MTD-6017

Unit : mm (inch)



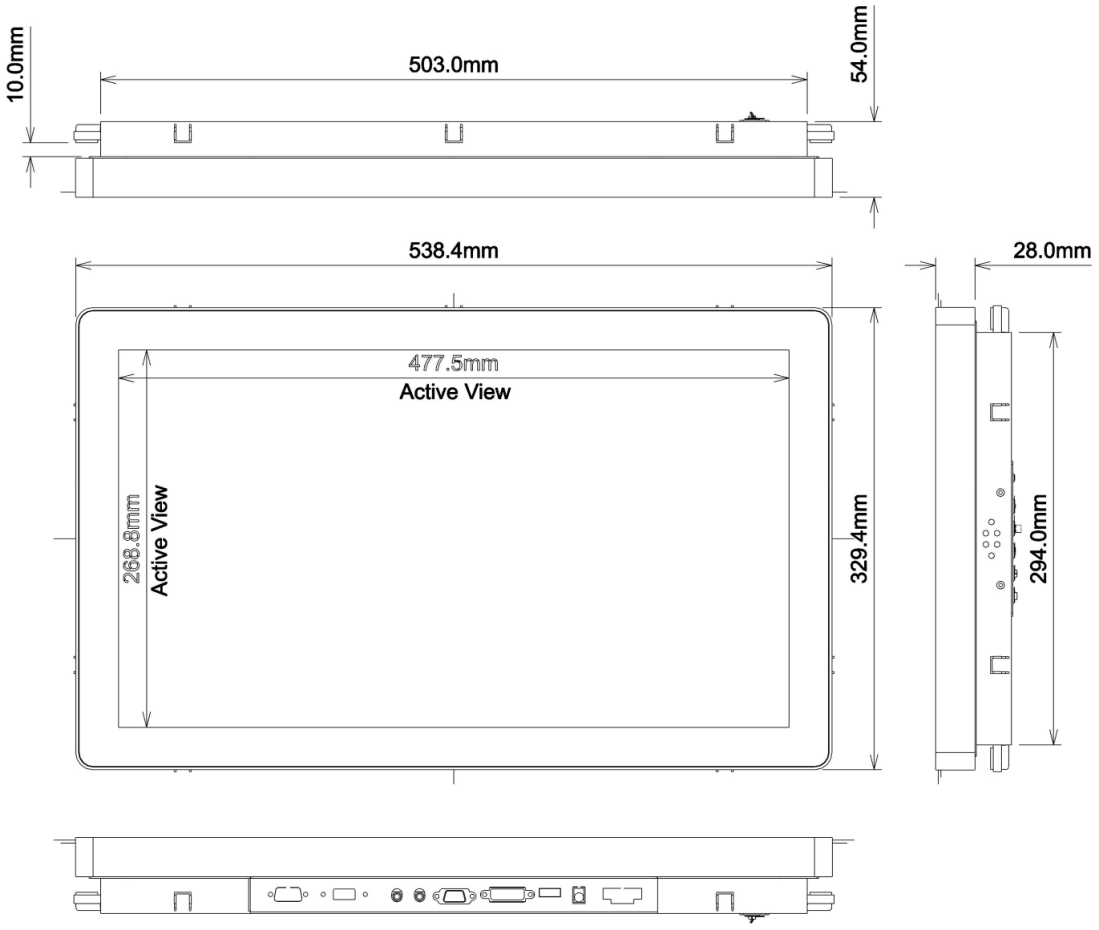
1.4.3 Dimensions of MTD-6019

Unit : mm (inch)



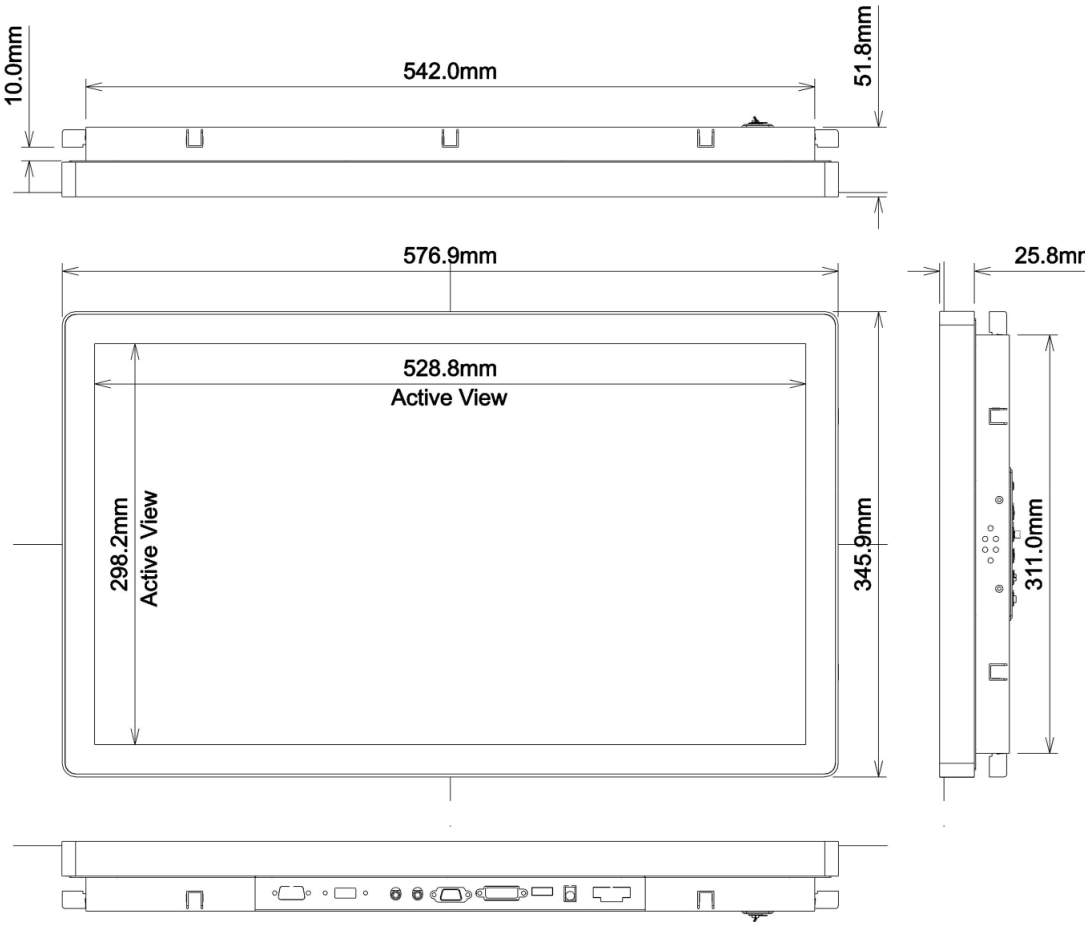
1.4.4 Dimensions of MTD-6021

Unit : mm (inch)



1.4.5 Dimensions of MTD-6024

Unit : mm (inch)



2

GETTING TO KNOW YOUR MTD-6000

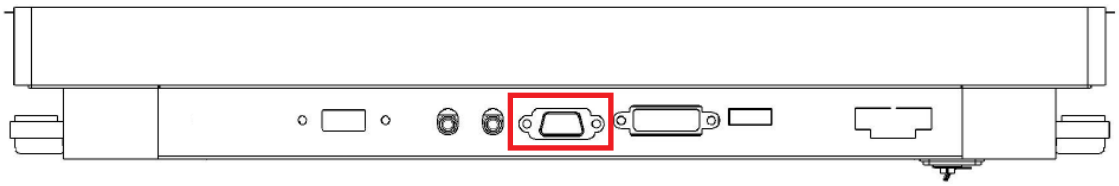
2.1 Packing List

2.1.1 MTD-6000 Packing List

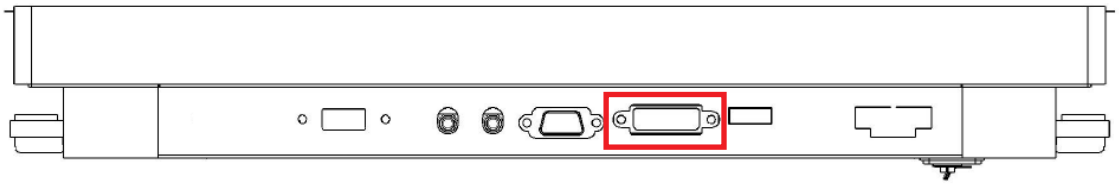
Item	Description	Qty
1	MTD-6000 Touch display monitor	1
2	VGA Cable	1
3	USB-A Cable (M)	1
4	Panel Mount Kit	1

2.2 I/O & Functions

2.2.1 VGA

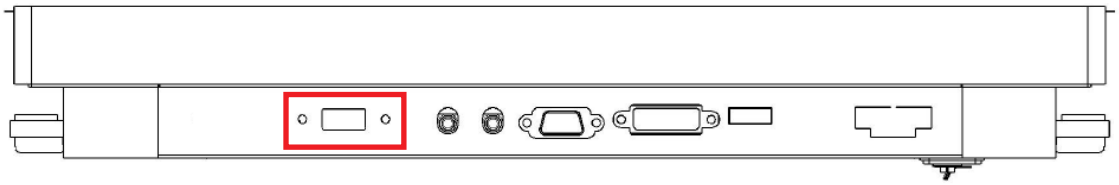


2.2.2 DVI-D



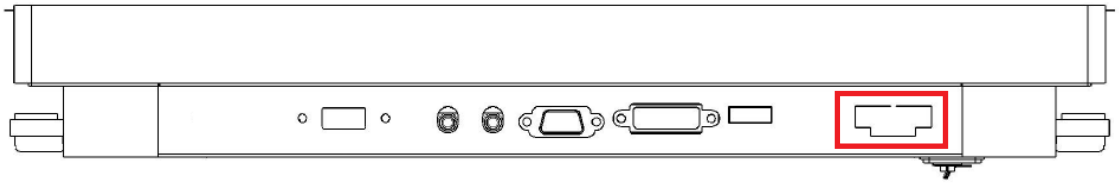
DVI-D input supports up to resolutions1920 x 1080

2.2.3 USB2.0



This USB 2.0 connector use to enable touch function

2.2.4 Power Terminal Block

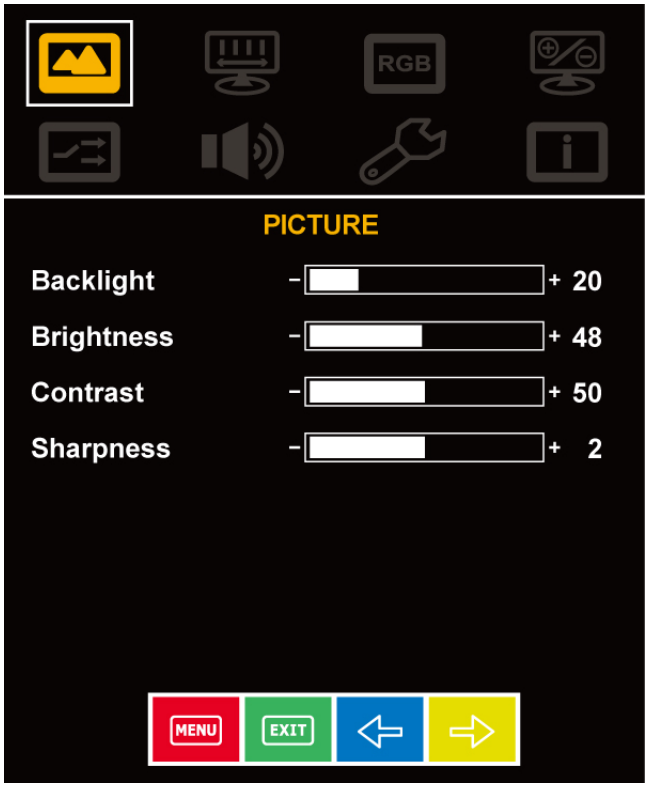


Pin No.	Definition	Pin No.	Definition
1	V+	3	Chassis Ground
2	V-		

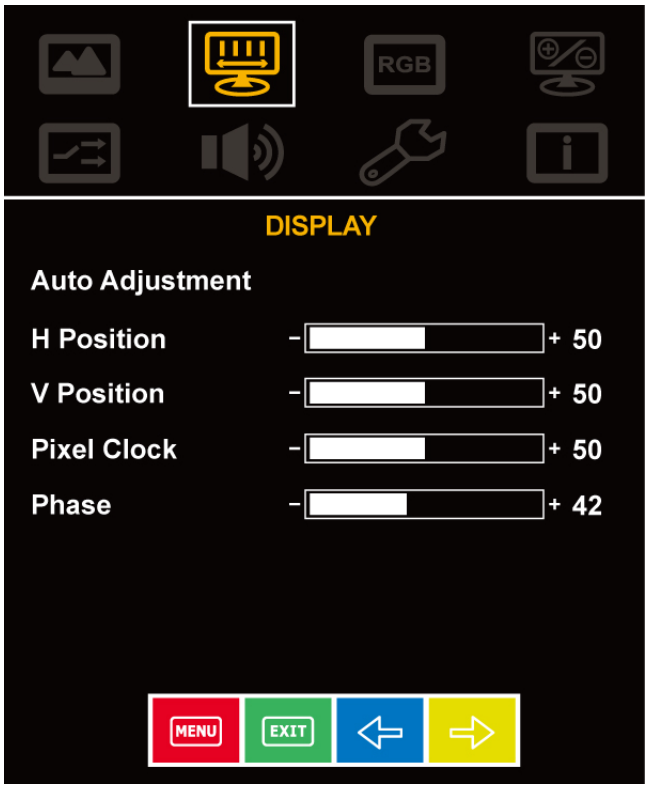
2.3 MTD-6000 OSD function

Decrease: Decrease setting or scroll down the menu bar
Increase : increase setting or scroll up the menu bar
On/Off: Turn on or off the main board
Menu/Select: Activate OSD menu
Auto/Exit: Auto select input and Exit OSD display

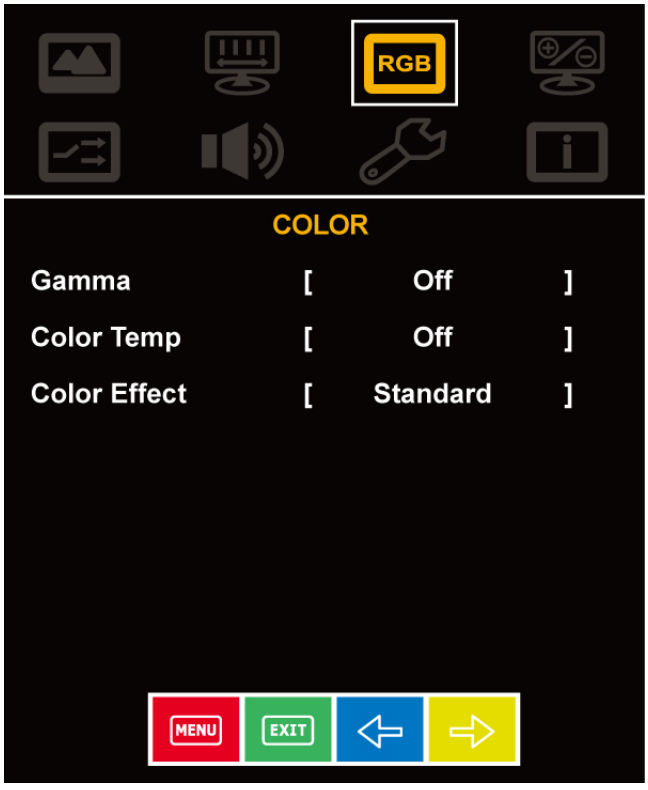
2.3.1 Picture



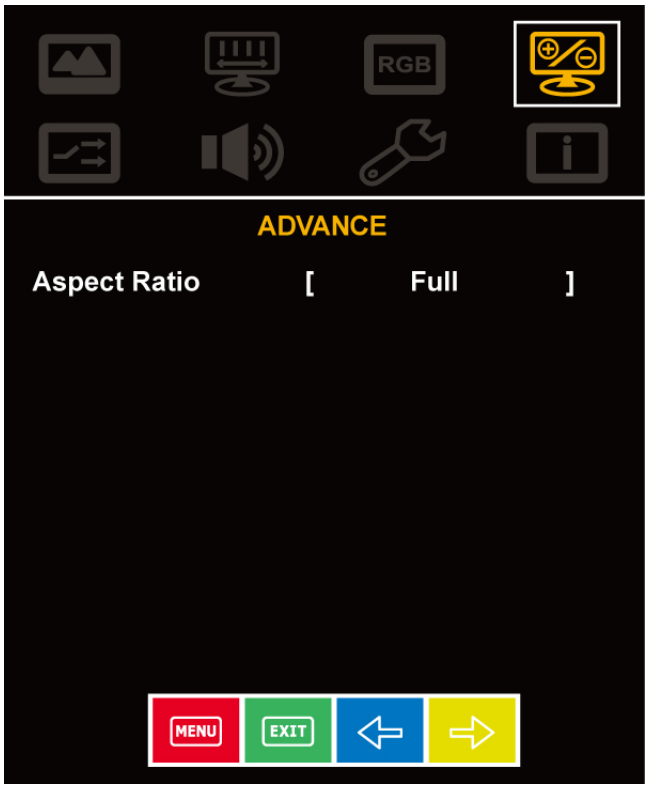
2.3.2 Display



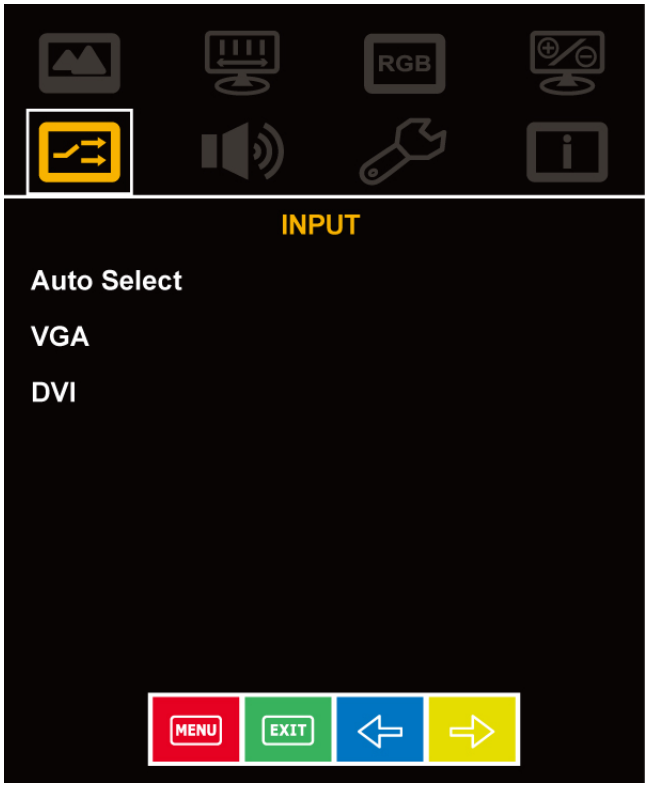
2.3.3 Color



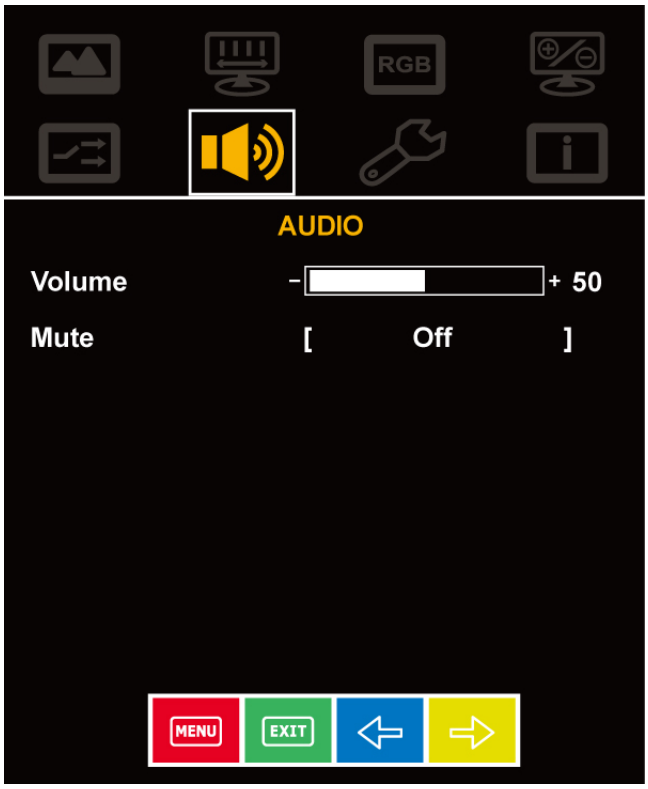
2.3.4 Advance



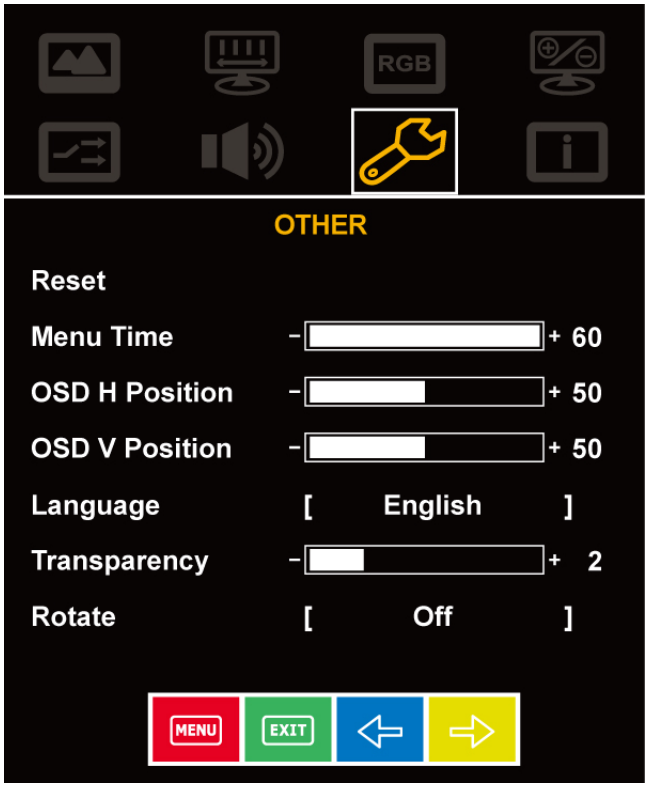
2.3.5 Input



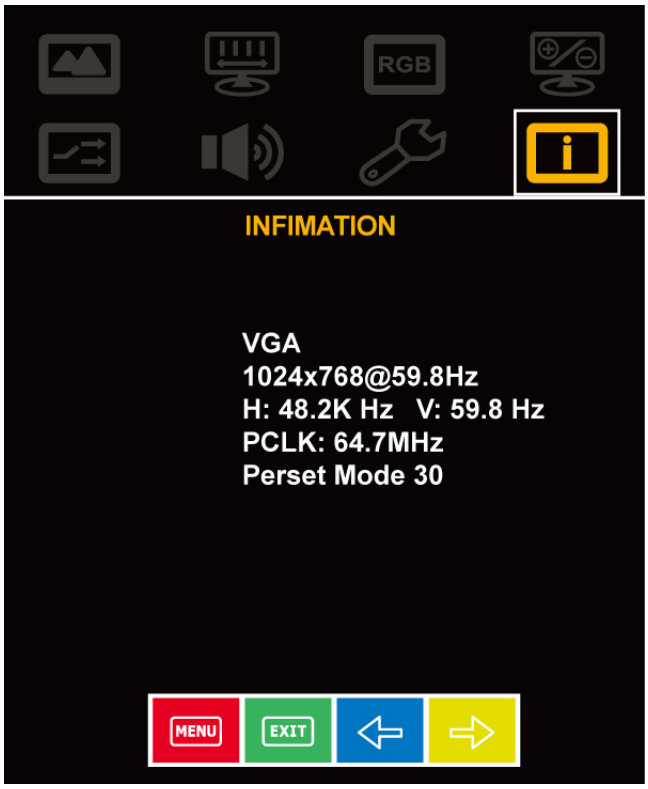
2.3.6 Audio



2.3.7 Other



2.3.8 Information



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