



MicroTouch DS-320P-A1 Digital Signage Monitor User Manual

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User Manual
DS-320P-A1
Digital Signage Monitor



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DS-320P-A1 Digital Signage Monitor

About This Document

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Compliance Information

For FCC (USA)

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 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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For IC (Canada)

CAN ICES-3(A)/NMB-3(A)

For CE (EU)

The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU

Warning:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Usage Notice



Warning – To prevent the risk of fire or shock hazards, and do not expose the product to moisture.



Warning – Please do not open or disassemble the product as this may cause electric shock.



Warning – Power cord shall be connected to a socket-outlet with earthing connection.



Warning – The cable cover cannot be removed under normal use conditions.



Warning – Stability Hazard. The touch monitor may fall, causing serious personal injury or death. To prevent injury, this touch monitor must be securely attached to the wall in accordance with the installation instructions.

Precautions

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

Do

- Turn off the product before cleaning.
- Use a soft cloth moistened with mild detergent to clean the product housing.
- Use only the qualified power adapter that comes with your device.
- Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

Don't

- Do not use abrasive cleaners, waxes or solvents for your cleaning.
- Do not operate the product under the following conditions:
 - Extremely hot, cold or humid environment.
 - Areas susceptible to excessive dust and dirt.

- Near any appliance generating a strong magnetic field.

Overview

DS-320P-A1 series supports landscape or portrait and low power consumption at the maximum consumption of 70W. DS-320P-A1 provides application for Interactive whiteboard and digital signage.

Feature

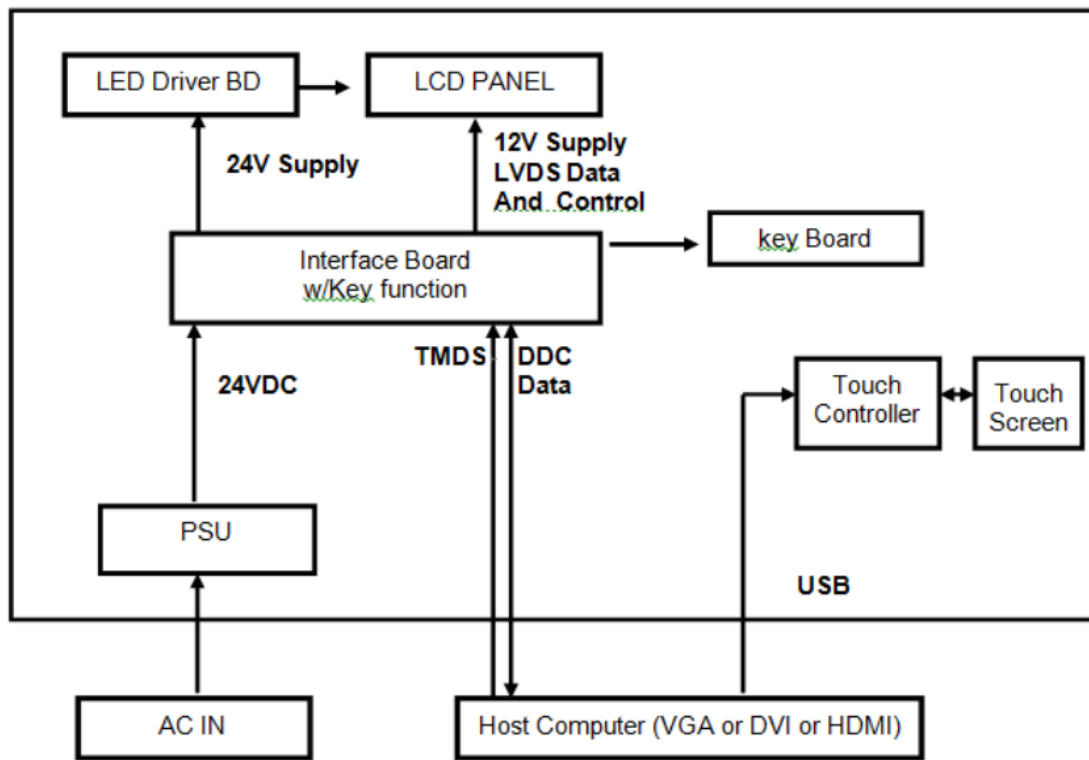
- VESA mounting holes for various mounting options.
- Multilingual OSD user control
- High Resolution FHD (1920 x 1080)

Specifications

LCD Touch Panel	
Size	31.5" TFT LCD
Brightness	400 cd/m2 (Non-touch screen) 360 cd/m2 (P-CAP)
Number of Pixels	1920(H) x 1080(V)
Touch Type	P-CAP/ 10 points
Environment	
Power Input	100-240V ~ 1.2A 50/60Hz
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 60°C
Operating Humidity	20% ~ 80% RH, non-condensing
Mounting	VESA 400 mm x 200 mm
Dimension (W x H x D)	476.1mm x 66.8mm x 781.5 mm
Net Weight	15.0 kg
Gross Weight	18.0 kg

1.4 Block Diagram

This section describes the electrical requirements of the monitor. The block diagram in figure 1 illustrates the various electrical sub-systems.



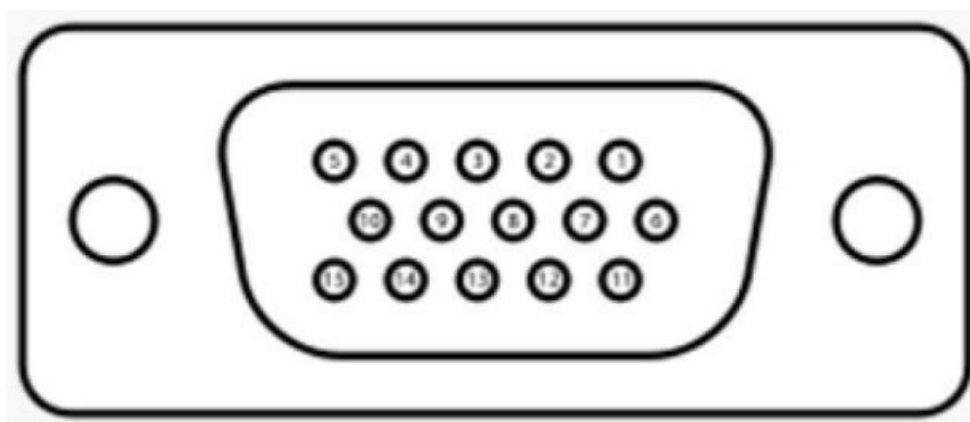
1.5 Interface Connectors



1.5.1 Power Connector

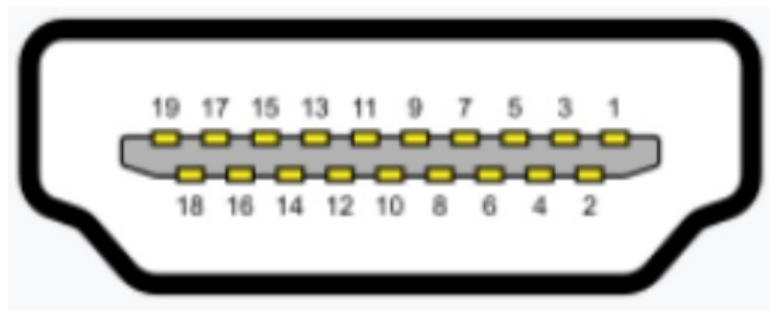
The monitor shall have a power control switch visible and accessible on the bottom of the monitor. The power switch shall be marked with icons per IEC 417, #5009. The operation of the power switch should be programmable thru monitor firmware control.

1.5.2 Video Signal Connector



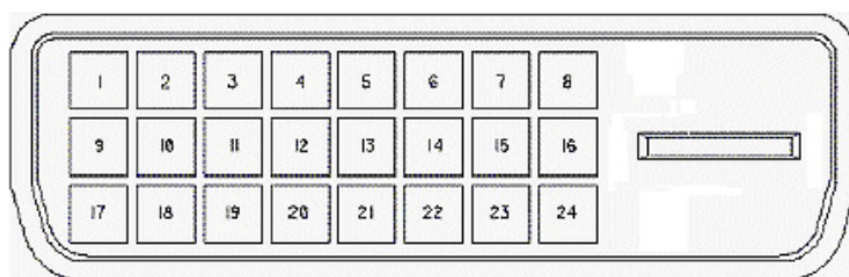
The video signal input via D-type 15-pin female connector. Connector Pin Assignment:

Pin	Signal
1	Red video signal input
2	Green video signal input
3	Blue video signal input
4	NC
5	DDC ground for the VESA DDC2B function
6	Analog signal ground for the red video
7	Analog signal ground for the Green video
8	Analog signal ground for the blue video
9	+ 5V: Input from host system for the VESA DDC2B function
10	Signal ground
11	NC
12	SDA signal input for the VESA DDC2B function
13	Horizontal signal input from host system
14	Vertical signal input from host system
15	SCL signal input for the VESA DDC2B function



The video signal input via HDMI female connector. Connector Pin Assignment:



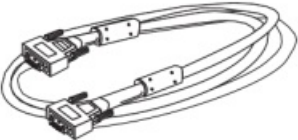


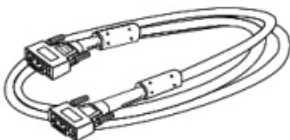



Pin	Signal
1	TMDS Data2+
2	TMDS Data2 Shield
3	TMDS Data2–
4	TMDS Data1+
5	TMDS Data1 Shield
6	TMDS Data1–
7	TMDS Data0+
8	TMDS Data0 Shield
9	TMDS Data0–
10	TMDS Clock+
11	TMDS Clock Shield
12	TMDS Clock–
13	CEC
14	Reserved (N.C. on device)
15	SCL
16	SDA
17	DDC/CEC Ground
18	+5V Power
19	Hot Plug Detect



The video signal input via DVI female connector. Connector Pin Assignment:

Pin	Signal
1	TMDS Data 2-
2	TMDS Data 2+
3	TMDS Data 2/4 Shield
4	TMDS 4
5	TMDS 4
6	DDC Clock
7	DDC Data
8	No Connection
9	TMDS Data 1-
10	TMDS Data 1+
11	TMDS Data 1/3 Shield
12	TMDS 3-
13	TMDS 3+
14	+5V DDC Power
15	Gnd (+5, Analog V/H Sync)
16	Hot Plug Detect
17	TMDS Data 0-
18	TMDS Data 0+
19	TMDS Data 0/5 Shield
20	TMDS Data 5-
21	TMDS Data 5+
22	TMDS Clock Shield
23	TMDS Clock+
24	TMDS Clock-C1

Package Overview

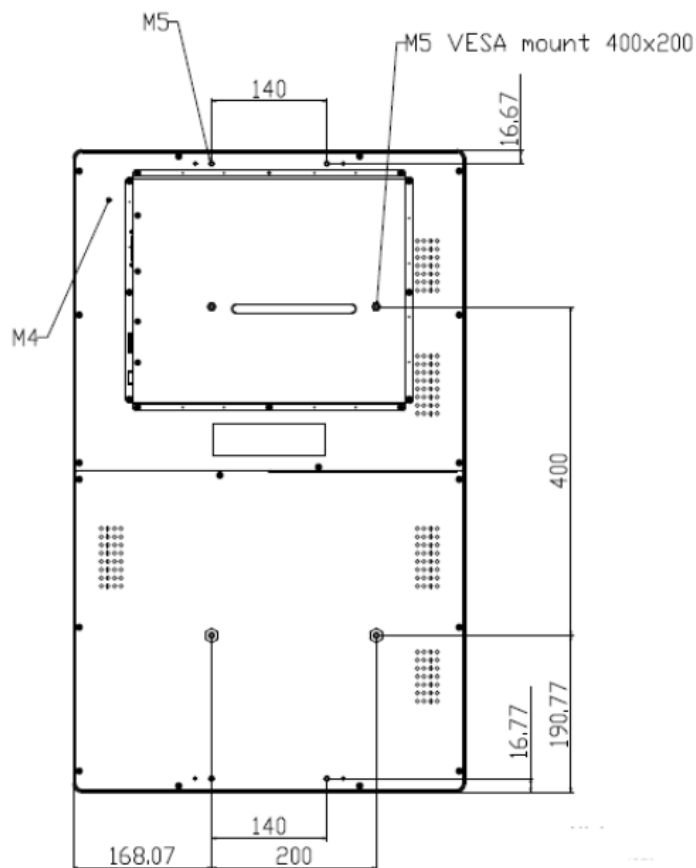
		
LCD Display	Power Cord	DVI Cable
		
USB Cable (A to B)	HDMI Cable	VGA cable
		
	Nut x 2	Screw (M5 x 8mm) x 4 pcs
		
Washer x 2		

Warning!

This product is intended to be supplied by a AC-in Power source, rated 100V~240V, 1.2A 50/60Hz minimum, Tma = 40 degree C minimum, and the altitude of operation = 3048m minimum. If it needs further assistance with purchasing the power source, please contact to Micro Touch for further information.

2.1 About VESA Mount

The DS-320P-A1 series conform to the “VESA Flat Display Mounting Interface Standard” which defines a physical mounting interface for touch monitor and corresponding with the standards of touch monitor mounting devices. The VESA mount is located on the back of this unit.



⚠ Warning!

Please select the Micro Touch original screws!

The distance between the back cover surface and the bottom of the screw hole is 6~7 mm. Please use M5 screws diameter with proper length to mount your monitor.

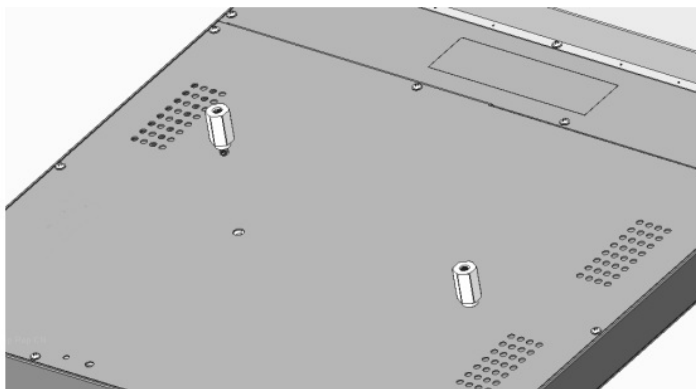
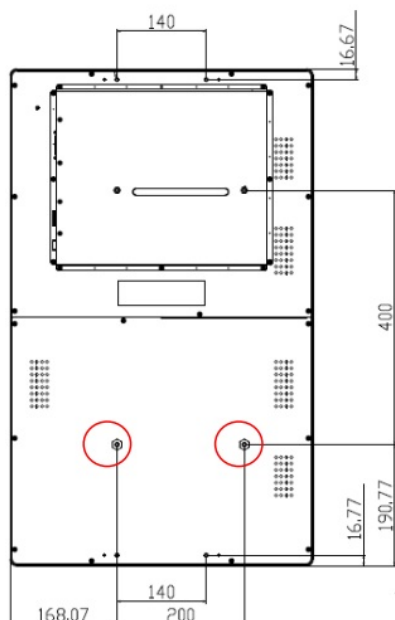
Note: The mounting stand must be able to support at least 33 lbs (15.0 Kg).

2.1.1 Install the VESA screw

Note: Please install/ dismantle the product when the device is in the shutdown state.

Step 1: Fasten two M5 screws nut into the VESA hole The length of screw nut is 30mm

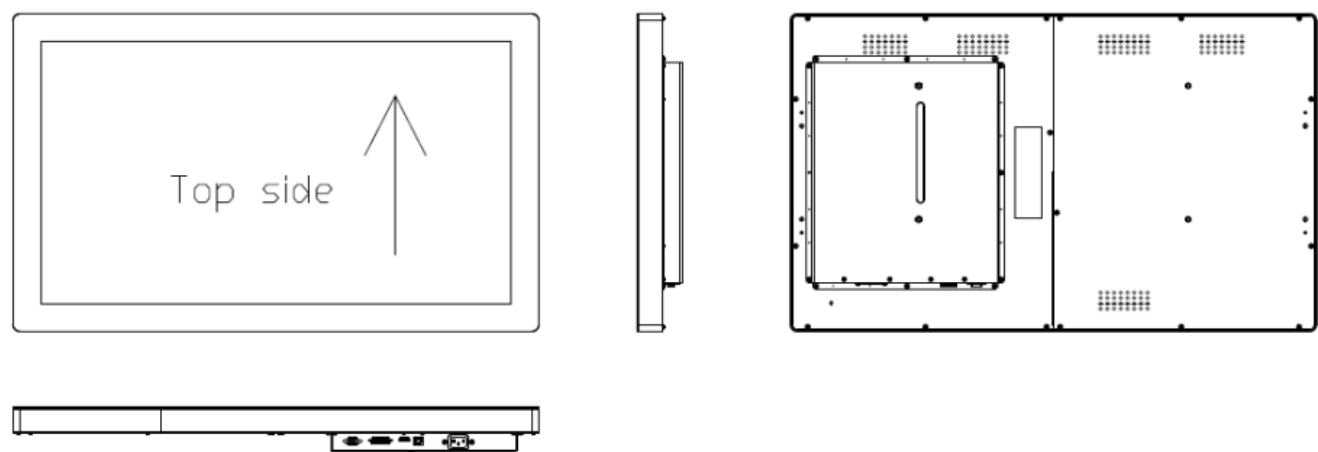
Step 2: Fasten four M5 screws into the VESA hole The specification of screw is M5 x 8mm



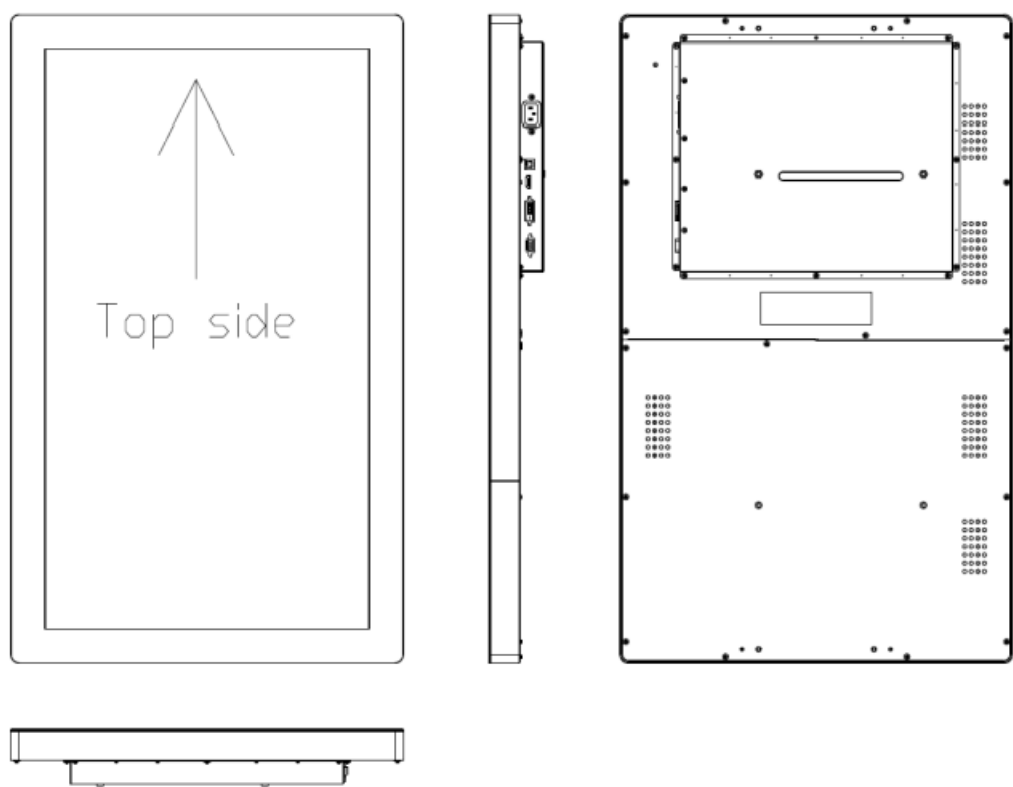
2.2 About General Mounting Information

The following two mounting orientations are supported: Landscape and portrait mode. For optimal touch performance, ensure that the monitor is supported fully and is as flat as possible.

2.2.1 Landscape




2.2.2 Portrait



2.3 On-Screen Display



The OF-320P-A1 provide side panel controls. And the following is OSD function table:

OSD/Key	Menu off status	Menu on status
MENU	Menu appear	Menu disappear/ return to main item
▲	Brightness	Main item select up/ Adjust up
▼	Contrast	Main item select down/ Adjust down
SELECT	Auto Adjusting	Enter/Select sub-item function
	Power On/Off	

1. Press the “MENU” button to pop up the “on-screen menu” and press “Up” or “Down” button to select among the five functions in the main menu.
2. Press “SELECT” to enter the sub menu , and then use “Up” or “Down” button to select the adjustable functions.
3. Choose the adjustment items in the sub menu by pressing the “SELECT ” button.
4. Adjust the value of the adjustment items by pressing the “Up” or “Down” button.
5. With the OSD menu on screen, press “Menu” button to return main menu or exit OSD.
6. The OSD menu will automatically close, if you have left it idle for a pre-set time.
7. To Lock the OSD / Power menu buttons, please follow the instructions below. (Please note: the monitor has to be turned ON with a valid signal pre-set)
 - a. Without the OSD menu on screen, press and hold “Menu” key ,and press “POWER” once then release “MENU” key. The “Lock/Unlock” menu will appear for 5 seconds.
 - b. Use the “UP” and “DOWN key to select OSD or Power setting then set at “Lock” (or “Unlock”) by pushing the “ENTER” button.
 - c. When pressing “MENU” button , the previous setting will be saved and exit the “Lock/Unlock” menu automatically.

1. When the OSD Lock function is selected, this indicates that all the buttons except “power” button are now disabled.
2. When the Power Lock function is selected, this indicates that the power key is disabled; user can not to turn off the monitor by “Power” key.
3. How to enter factory OSD menu, please follow the instructions below.
 - a. Without the OSD menu on screen, press and hold “Menu” key ,and press “UP” once then release “MENU” key. The factory menu will appear on the screen.
 - d. Use the “UP” and “DOWN key to select main functions, then press “SELECT” to enter sub menu for adjusting (or setting) those values.
 - c. Select “GoTo Main” and press “SELECT” to exit factory OSD menu, it will automatically switch to user menu for normal OSD operation.
4. In power saving status, to press “Menu” button can wake up OSD for selecting video port.

2.3.1 OSD Function Description

Item	Content	Default
Contrast	The monitor luminance level control.	50
Brightness	The monitor backlight level control.	50
Auto Adjust	Automatically adjusts the screen image of VGA signal, affecting the H-position, V-position, Frequency, and Phase menu.	NA
Left/Right	Moving screen image horizontal position to left or right.	NA
Up/Down	Moving screen image vertical position to up or down.	NA
Horizontal size	The screen image horizontal dot clock adjustment.	NA
Fine	The screen image pixel phase adjustment.	NA
OSD Left/Right	Moving OSD menu horizontal position to left or right.	50
OSD Up/Down	Moving OSD menu vertical position to up or down.	50
OSD Time out	OSD auto-disappear time selection.	15
OSD Language	OSD menu language selection. (English, French, Deutsch, Italian, Spanish, Japanese , Simplified Chinese and Korean)	English
Factory Reset	Factory default value restored.	NA
Color Temperature	Color temperature selection. (5500K, 6500K, 7500K, 9300K, User; default: User)	USER
Red	Red gain of selected color temperature. (only User mode can be adjusted)	97
Green	Green gain of selected color temperature. (only User mode can be adjusted)	100
Blue	Blue gain of selected color temperature. (only User mode can be adjusted)	97

2.3.2 Timing Table Chart

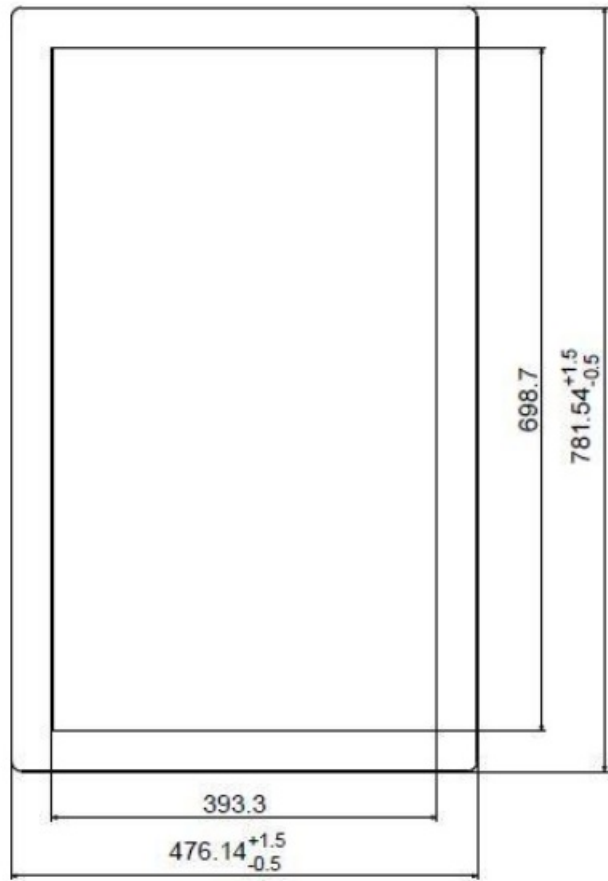
Mode	Resolution	H-Freq. (KHz)	Bandwidth (MHz)	Polarity	
				H	V
1	VGA 640×480@ 60Hz	31.47	25.175	—	—
2	VESA 800×600@ 56Hz	35.16	36	+	+
3	VESA 800×600@ 60Hz	37.88	40	+	+
4	VESA 1024×768@ 60Hz	48.36	65	—	—
5	VESA 1280×720@ 60Hz	44.772	74.5	+	+
6	VESA 1280×768@ 60Hz	47.776	79.5	—	+
7	VESA 1280×1024@ 60Hz	64	108	+	+
8	VESA 1280×960@ 60Hz	60	108	+	+
9	VESA 1440×900@ 60Hz	56	106.5	—	+
10	VESA 1680×1050@ 60Hz	65.2	146	—	+
11	VESA 1920×1080@ 60Hz	67.5	148.5	+	+

2.3.3 EDID Data

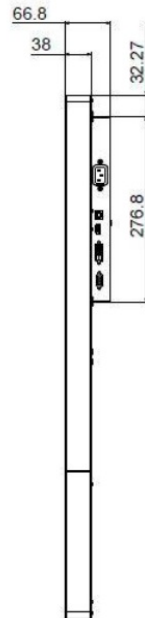
The monitor assembly shall provide a display communications channel that conforms to VESA DDC2B hardware requirements. This configuration shall contain the 128-byte EDID file as specified by VESA EDID Standard.

Dimension

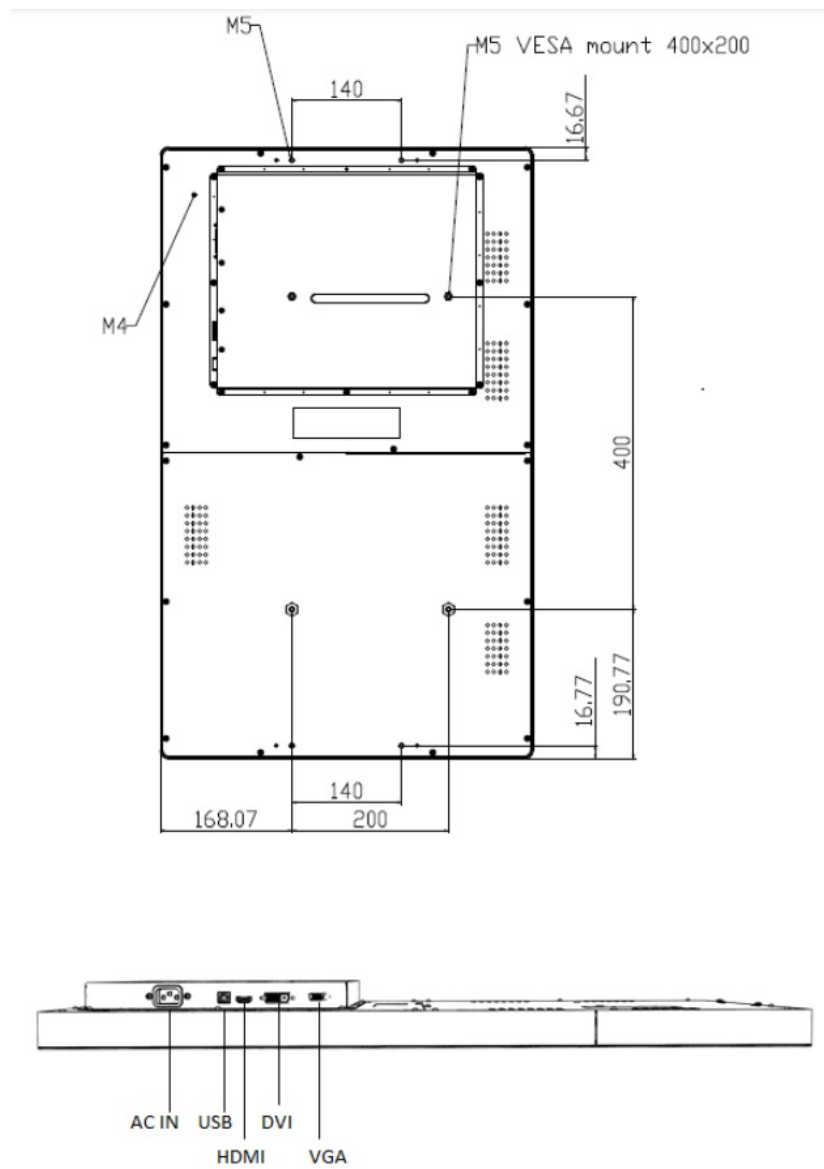
2.4.1 Front View



2.4.2 Side View



2.4.3 Rear View



Declaration of the Presence Condition of the Restricted Substances Marking

Equipment name : Touch Monitor Type designation (Type) : DS-320P-A1

Unit	Restricted substances and its chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr +6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PDB E)
Plastic Parts	0	0	0	0	0	0
Metal Parts	—	0	0	0	0	0
Cable component	—	0	0	0	0	0
LCD Panel	—	0	0	0	0	0
Touch Panel	—	0	0	0	0	0
PCBA	—	0	0	0	0	0
Software	0	0	0	0	0	0


Note 1 : “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

Note 2 : “o” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

Note 3 : The “—” indicates that the restricted substance corresponds to the exemption.



Documents / Resources

 <p>User Manual</p> <p>DS-320P-A1 Digital Signage Monitor</p>	<p>MicroTouch DS-320P-A1 Digital Signage Monitor [pdf] User Manual</p> <p>DS-320P-A1, DS-320P-A1 Digital Signage Monitor, Digital Signage Monitor, Signage Monitor</p>
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