



Product Specifications

Customer	
Model Name	NTWP238-1 V500E
Model Number	NTWP238 <u>XXSXX</u> -GP <u>XX8XX</u> - <u>XXXX</u> -500E

* X = A~Z, 0~9 (Depends on Options.)



Records of Revision			
Vision	Modifying	Old Description	New Description
v2103.1	Preliminary Specification		
v2103.2	Add the Panel Mount Kits Option		



Features

- ★ 23.8 inch, 1920x1080 (FHD) Resolution
- ★ VA Wide Viewing Angle Technology (178°/178°)
- ★ Intel® Quad-Core N3450/N4200 CPU
- ★ DDR3 8G DRAM
- ★ Serial ATAIIIx1, mSATA/mPCIe x1
- ★ Narrow Bezel, True Flat Projected Capacitive Touch Screen
- ★ 7H Hardness Tempered Cover Glass
- ★ 10 points Multi-touch , Supports Active Stylus
- ★ Metal Cabinet with Diverse Combine Options
- ★ Made in Taiwan, 3 Years Warranty
- ★ Optional High Brightness 1500nits, for Outdoor Environment
- ★ Optional AG Coating/Antibacterial/Privacy Filter Surface Treatment



PSE



BSMI



RoHS



CE



ISO9001



FCC



Desktop Stand



Wall Mounting



Open-frame Brackets



Panel Mount



System Specifications

CPU	Intel® Quad-Core Pentium®
Memory	DDR3 SO-DIMM 8G
Storage	mSATA/mPCIe2 x1
GPU	Realtek ALC255 Audio CODEC
Network	Realtek Gbe LAN Chips x1
Hardware Monitoring	Voltage / Temperature / Fan Speed Detection, Control
OS	Windows 10 64-bit

Display Specifications

Screen Diagonal	23.8 inch	Display Mode	VA Mode, Normally Black
Display Area	527.04x296.46 mm	Backlight Unit	LED (white LED)
Resolution	1920x1080 (FHD)	Viewing Angle (L/R, U/D)	178°/178° (CR=10)
Contrast Ratio	3000:1	Backlight Lifetime	>30,000 Hours
Display Ratio	16:9	Operating Temp.	0~50°C
Support Colors	16.7M Colors	Storage Temp.	-20~60°C
Pixel Pitch	274.5x274.5 um	Surface Treatment	Anti-glare, Hardness 3H
Response Time	16 msec.		

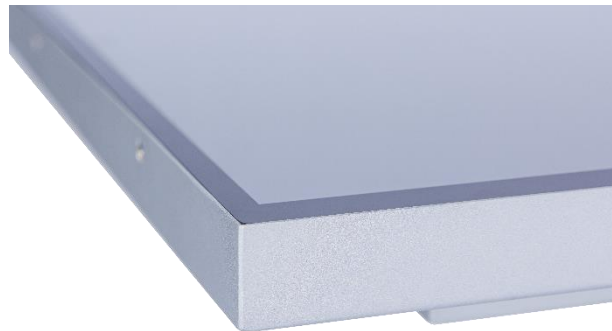
Display Options

Brightness			
	Brightness	Environment	Model Name
Standard	250nits	General	NTWP238NXSXX-GPXX8XX-XXXX-500E
Option 1	1000nits	Outdoor Environment	NTWP238AXSXX-GPXX8XX-XXFX-500E
Option 2	1500nits *	Sunlight Readable	NTWP238FX2XX-GPXX8XX-XXFX-500E

* Check the data sheets: NTWP238-1 V500E

Touch Options

Projected Capacitive			
Model Name	NTWP238X <u>P</u> SXX-GPXX8XX-XXXX-500E		
Touch Technology	Projected Capacitive	Thickness of Cover Lens	2.9±0.2mm
Allowed Touch Points	10 points	Hardness of Cover Lens	7H
Transparency	≥87%	IK Ratings	IK07
Accuracy	99.00%		

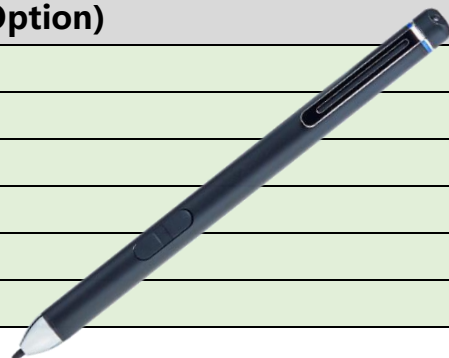


* True Flat, 1mm Bezel

Non-Touch	
Model Name	NTWP238X <u>0</u> SXX-GPXX8XX-XXXX-500E

Surface Treatment Options		
	Description	Model Name
Standard	(none)	NTWP238XXS<u>00</u>-GPXX8XX-XXXX-500E
Option 1	Anti-Glare Coating	NTWP238XXS <u>GG</u> -GPXX8XX-XXXX-500E
Option 2	Antibacterial (AB Film)	NTWP238XXS <u>AB</u> -GPXX8XX-XXXX-500E
Option 3	Anti-Spy (AS Film)	NTWP238XXS <u>SF</u> -GPXX8XX-XXXX-500E

Active Stylus (Option)	
Technology	Active Capacitive Coupled
Working Frequencies	90~250 KHZ
Pressure Level	256~1024 Levels
Side Buttons	2 Side Buttons (Eraser, Barrel)
Active Tip Force	5~25g
Max. Tip Force	400g





System Options

CPU		
	Item	Model Name
Standard	N3450	NTWP238XXSXX-GPC28XX-XXXX-500E
Option	N4200	NTWP238XXSXX-GP C 48XX-XXXX-500E

Storage		
	Item	Model Name
Standard	SSD 128G	NTWP238XXSXX-GPXX8S1-XXXX-500E
Option 1	SSD 256G	NTWP238XXSXX-GPXX8 S 2-XXXX-500E
Option 2	SSD 512G	NTWP238XXSXX-GPXX8 H 5-XXXX-500E
Option 3	SATA HDD 1T	NTWP238XXSXX-GPXX8 H 1-XXXX-500E

Material of Cabinet		
	Description	Model Name
Standard	SECC	NTWP238XXSXX-GPXX8XX-SXXX-500E
Option 1	Stainless Steel	NTWP238XXSXX-GPXX8XX- L XXX-500E
Option 2	Aluminum	NTWP238XXSXX-GPXX8XX- A XXX-500E

Color of Cabinet		
	Description	Model Name
Standard	Silver	NTWP238XXSXX-GPXX8XX-XSXX-500E
Option 1	White	NTWP238XXSXX-GPXX8XX- X WXX-500E
Option 2	Black	NTWP238XXSXX-GPXX8XX- X BXX-500E
Options	Other Color	NTWP238XXSXX-GPXX8XX- X XXX-500E

* **X** = A~Z, 0~9 (Depends on Color)

System Options (Continued)

Cooling Fan		
	Description	Model Name
Standard	7 Blades/4000r.p.m/28.3dB	NTWP238XXSXX-GPXX8XX-XXFX-500E
Option	Fanless	NTWP238XXSXX-GPXX8XX-XX0X-500E

Power Input		
	Description	Model Name
Standard	9~36VDC-in, with AC/DC Adapter	NTWP238XXSXX-GPXX8XX-XXX4-500E
Option	100~240V AC, C14 AC Power Socket	NTWP238XXSXX-GPXX8XX-XXXA-500E

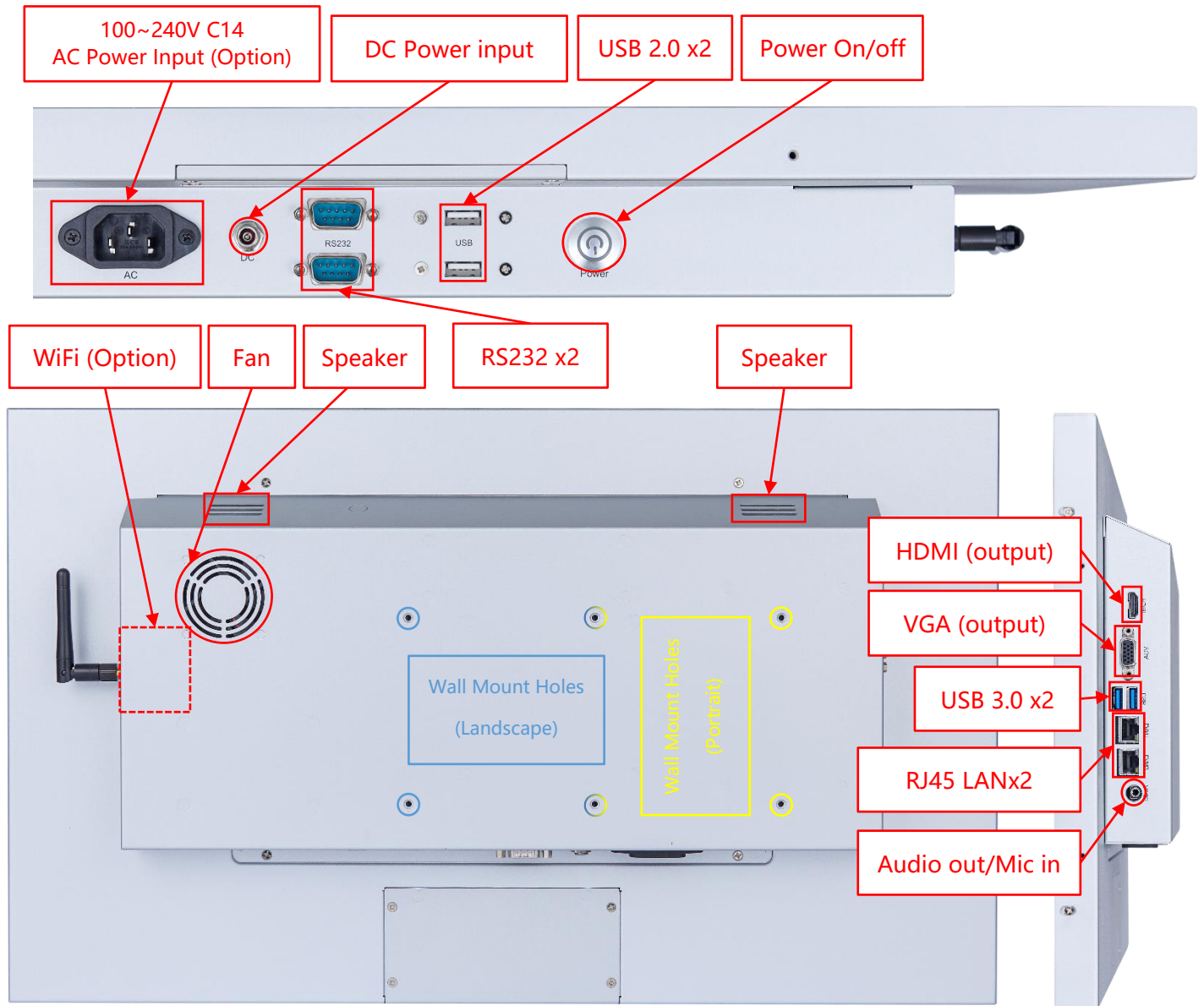


DC-in



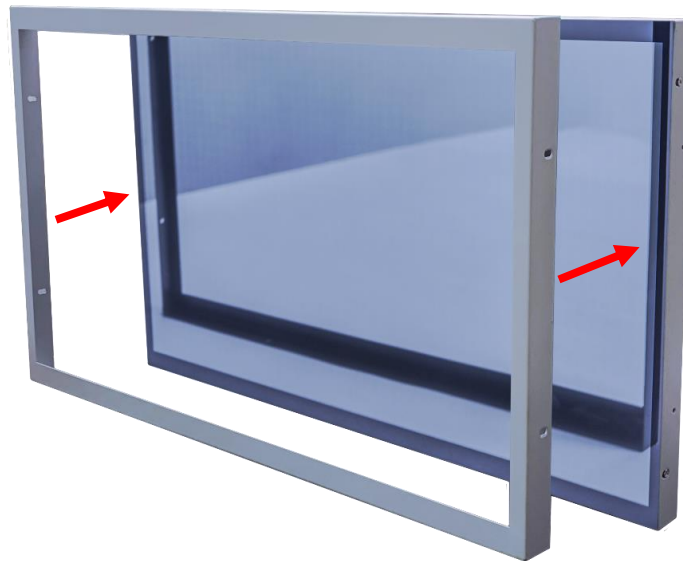
AC-in

Input /Output System



Input / Output	Connectors	Input / Output	Connectors
HDMI (Output)	1	USB 3.0	2
VGA (Output)	1	USB 2.0	2
Audio Output /Mic Input (3.5mm)	1	RS232	2
DC Power Input	1	LAN (RJ45)	2
AC Power Input	Option	Wi-Fi/Bluetooth & Antenna	Option
Speakers	2W x2		

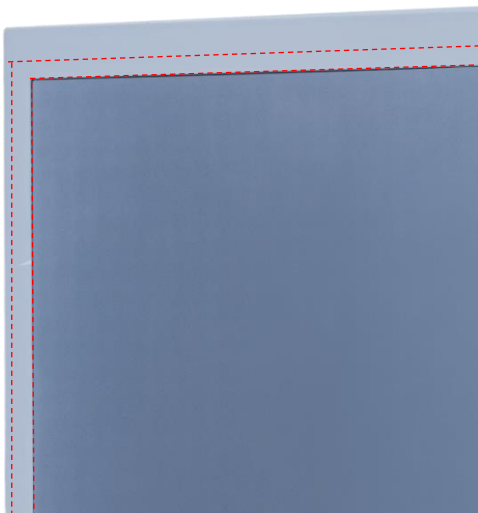
Front Cover (Option)



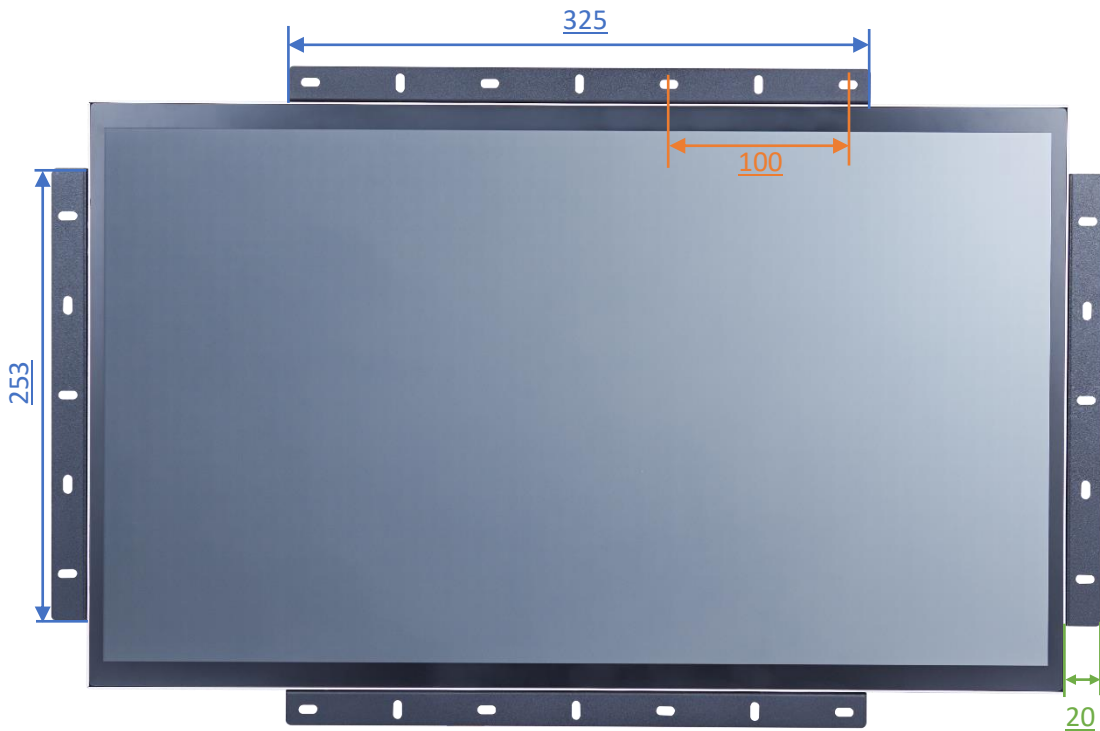
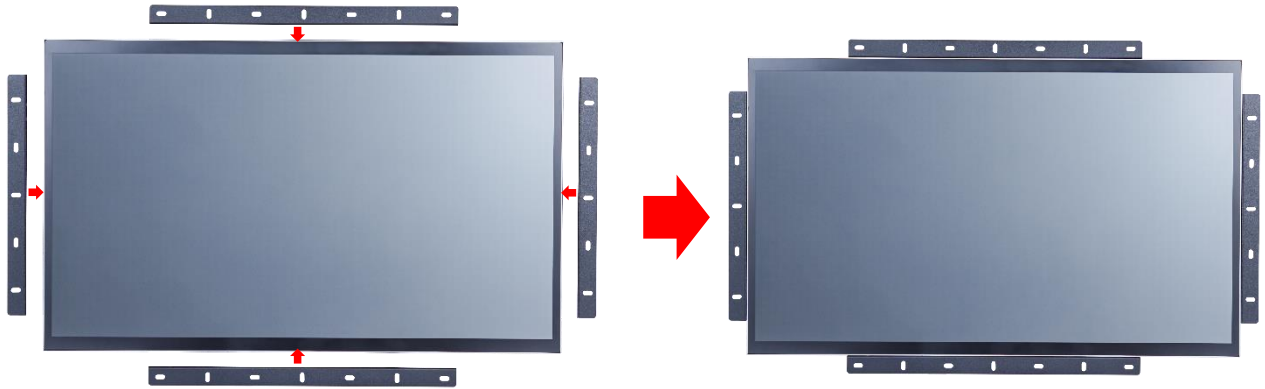
The standard **NTWP238** is true flat surface, with only 1mm metal bezel.
To protect the corners of the touch screen, the **Front Cover** can be added.



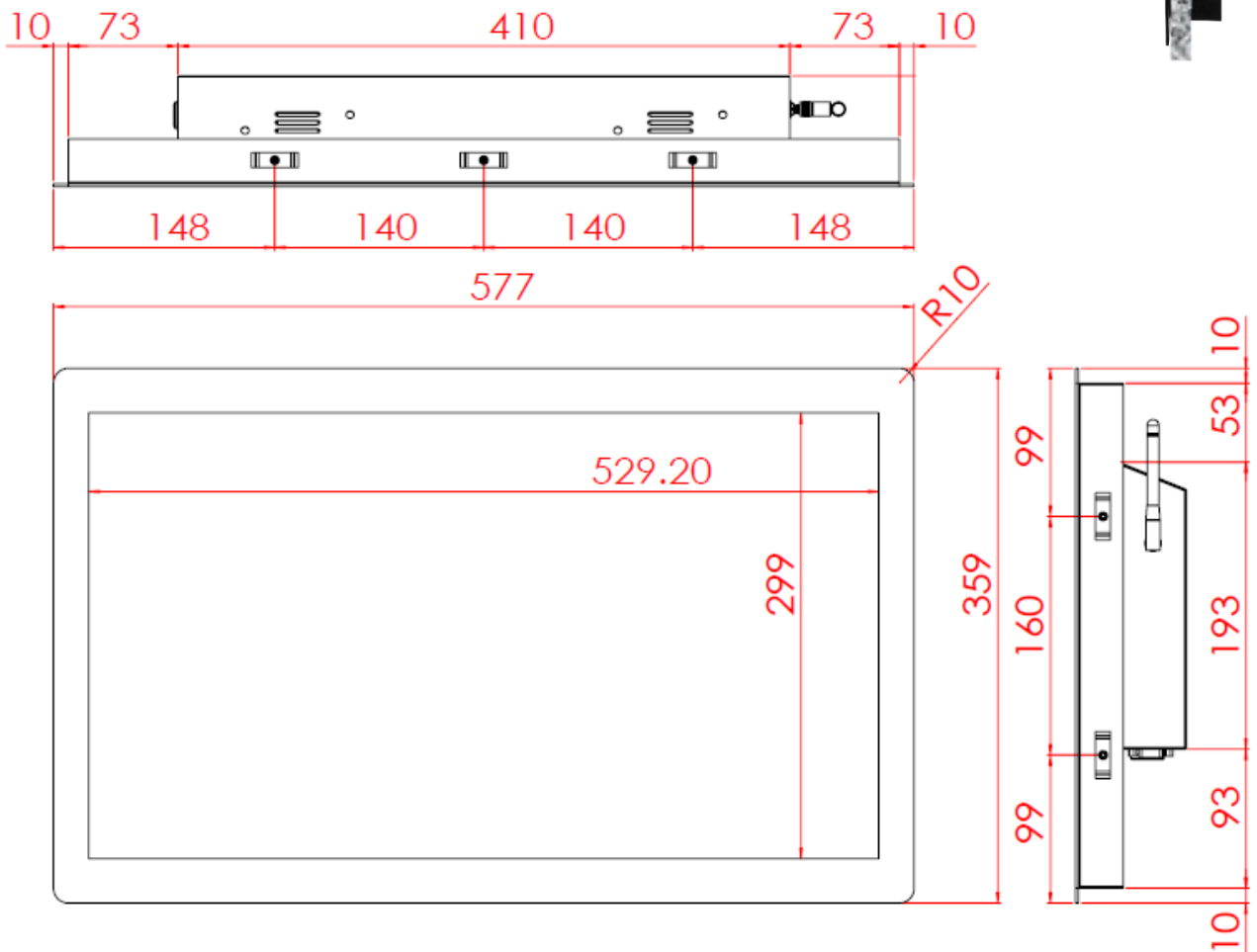
The watertight gasket can be added between the **Front Cover** and **NTWP238**.
It complies **IP65** on front.

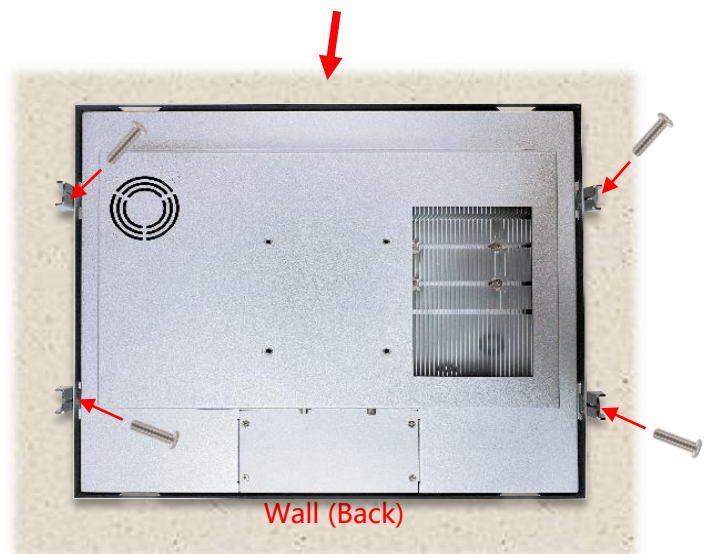
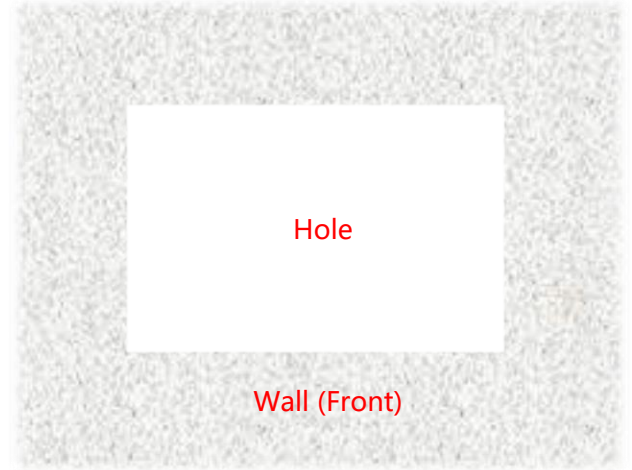
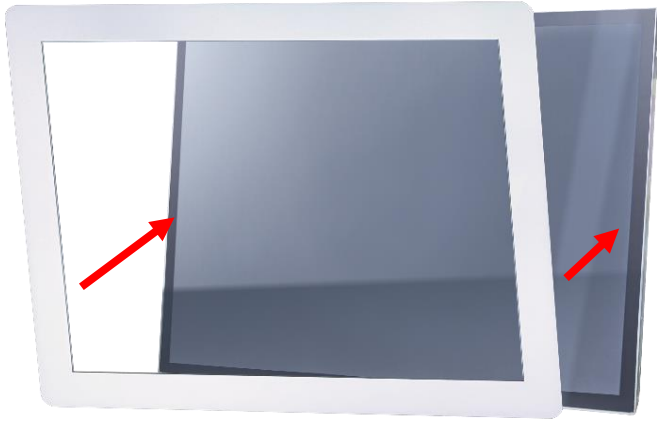


Open-frame Brackets (Option)



Panel Mount Kits (Option)



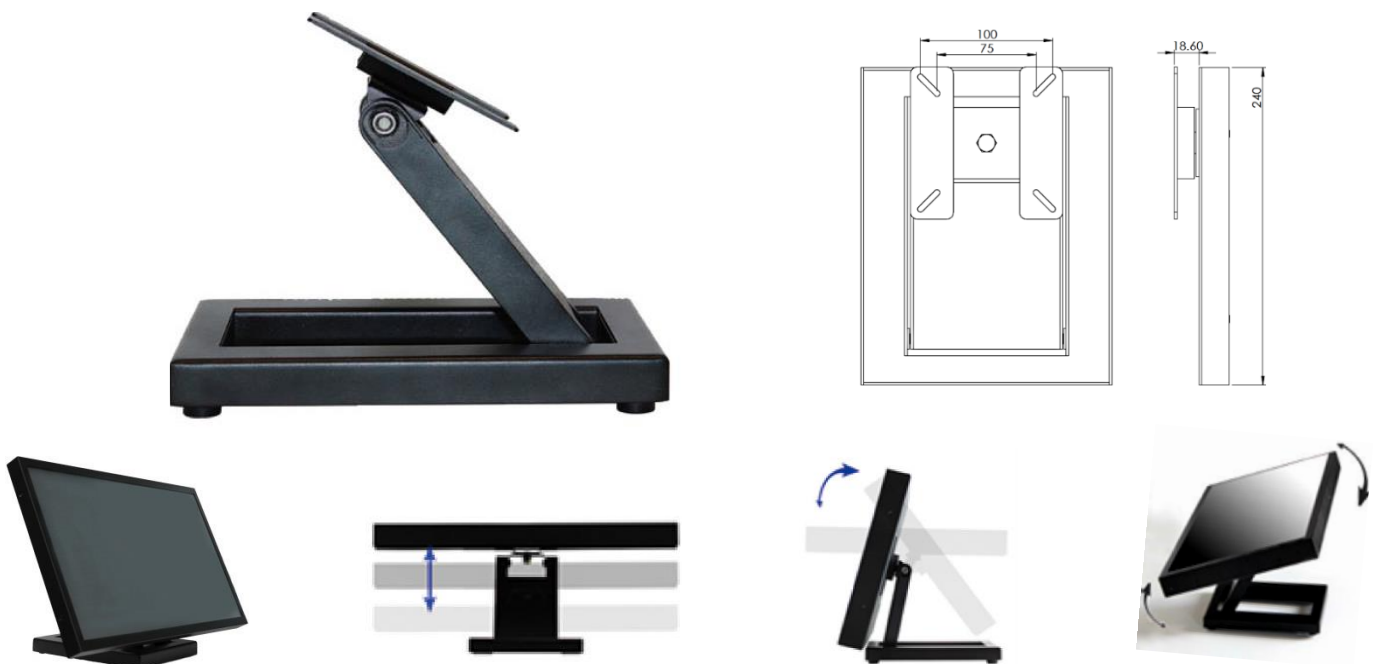


Desktop Stand (Option)

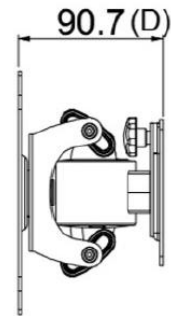
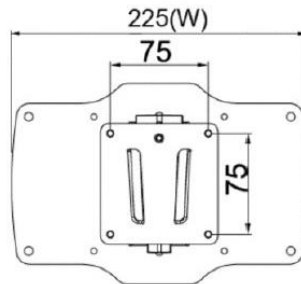
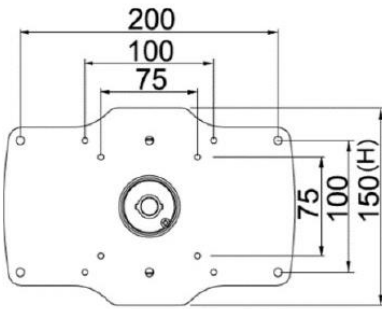
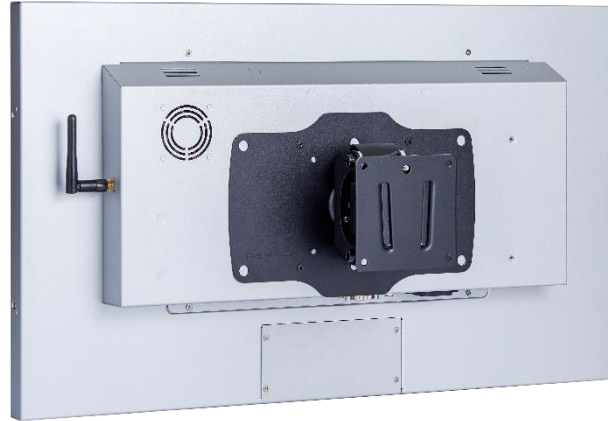
Item	B Stand	Part No.	DST-0B002/DST-1B002
Mounting Pattern	100x100 / 75x75 mm	Dimension (WxHxD)	203x275x227 mm
Material	Steel/Plastic/Aluminum	Net Weight	1.8 KG
Tilt (Hinge)	-2° ~ +180°	Support Max. Weight	15 KG



Item	Z Stand	Part No.	DST-0BZ01/DST-1BZ01
Mounting Pattern	100x100 / 75x75 mm	Dimension (WxHxD)	190x240x41.6
Material	SECC	Net Weight	2.6 KG
Tilt (Hinge)	±360°	Support Max. Weight	15 KG



Wall Mount Bracket (Option)



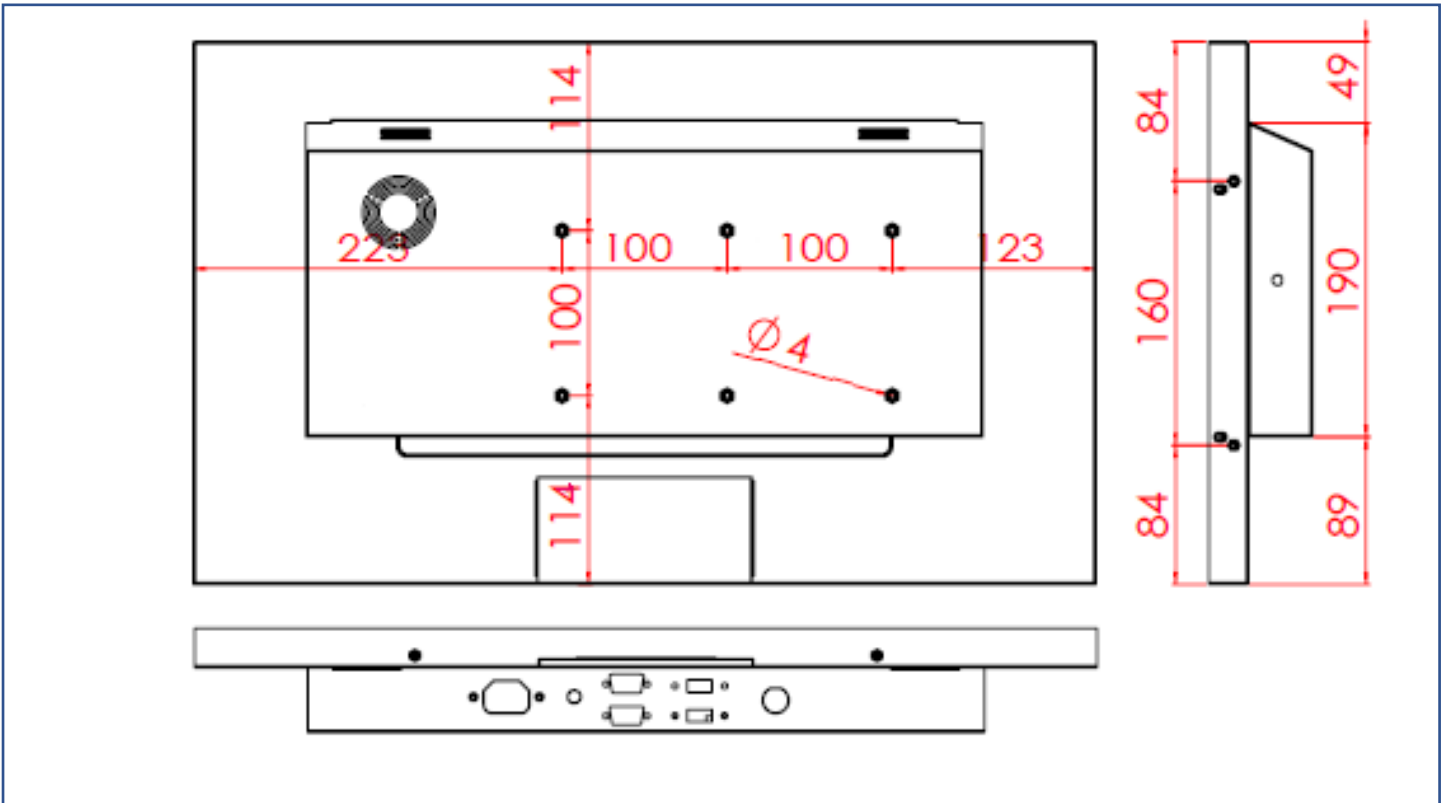
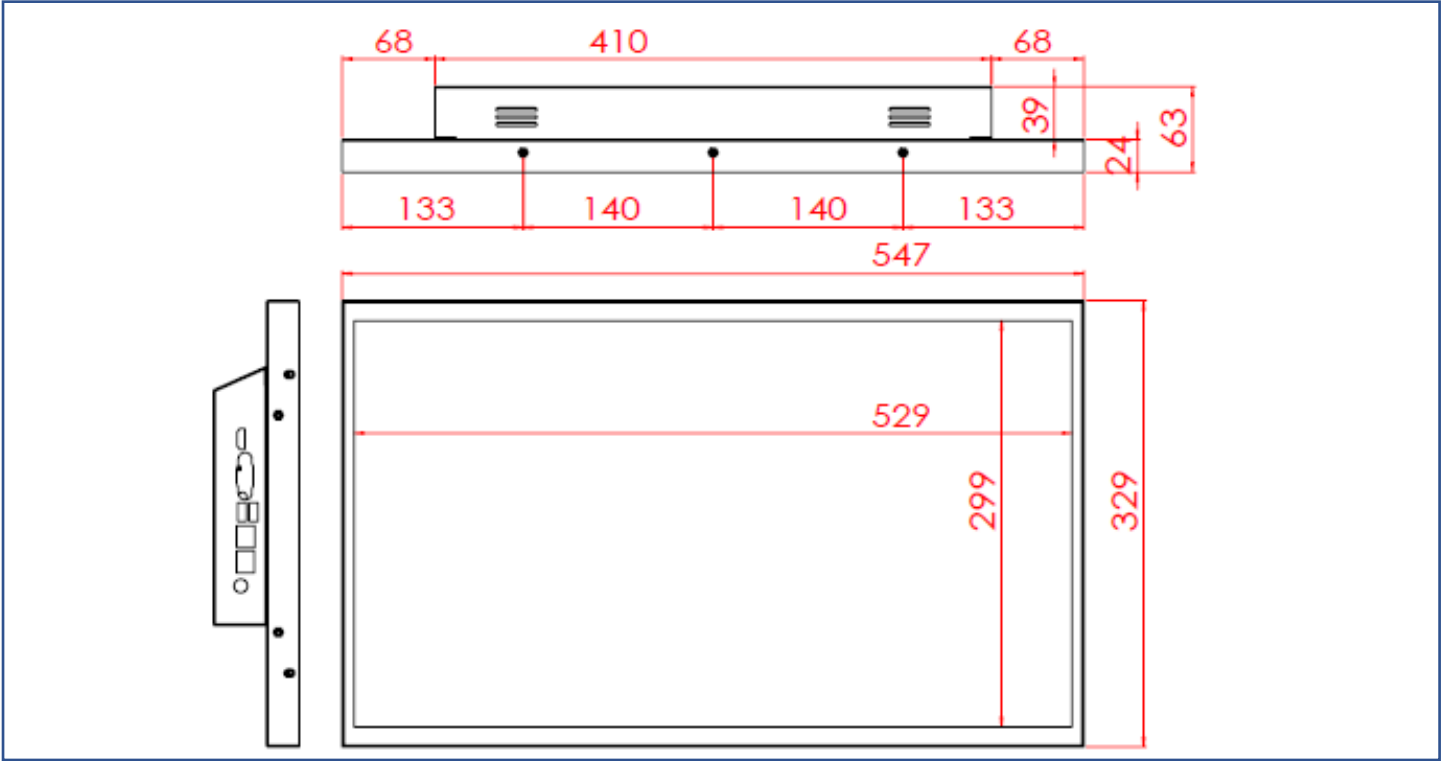
Packing Information



Dimensions of Carton	772x200x523 mm
Net Weight	≤6.4 KG
Gross Weight	≤8.8 KG

Physical Specifications

Dimension	547x329x63(±2)mm	Net Weight	≤6.4 KG
VESA Mounting	100x100 mm	Gross Weight	≤8.8 KG



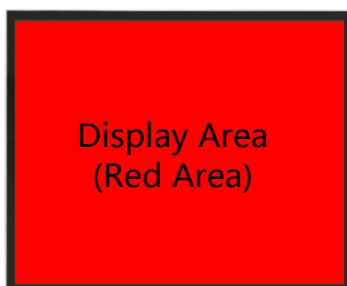
Cosmetic Inspection Standard

Display Area Allowance			
Defect description	Defective Specifications	Allowance	Remarks
Dot Defect (including dark dot, particles, bubbles, pits, dust, foreign matter)	$D \leq 0.2\text{mm}$	Ignored	D=Diameter
	$0.2 < D \leq 0.7\text{mm}$	$N \leq 5$	N=Quantity
	$0.7 < D \leq 1\text{mm}$	$N \leq 3$	
	$D > 1\text{mm}$	$N \leq 0$	
Linear Defect (including scratches, fluff, particles)	$W \leq 0.15\text{mm}$	Ignored	W=Width
	$0.15 < W \leq 0.5\text{mm}, L \leq 15\text{mm}$	$N \leq 2$	L=Length
	$W > 0.5\text{mm}$ or $L > 15\text{mm}$	NG	

* Visual inspection distance: 60cm, 90 degree (same for front/side/back)

Front Appearance Allowance (Including Coating)			
Defect description	Defective Specifications	Allowance	Remarks
Dot Defect (including particles, bubbles, pits...etc.)	$D \leq 0.7\text{mm}$	Ignored	D=Diameter
	$0.7 < D \leq 1.5\text{mm}$	$N \leq 3$	N=Quantity
	$D > 1.5\text{mm}$	$N \leq 0$	
Linear Defect (including scratches, fluff, particles)	$W \leq 0.2\text{mm}, L \leq 15\text{mm}$	Ignored	W=Width, L=Length
	$0.2 < W \leq 0.7\text{mm}, L \leq 15\text{mm}$	$N \leq 1$	
	$W > 0.7\text{mm}$ or $L > 15\text{mm}$	NG	

Side / Back Appearance Allowance (Including Coating)			
Defect description	Defective Specifications	Allowance	Remarks
Dot Defect (including particles, bubbles, pits...etc.)	$D \leq 1.5\text{mm}$	Ignored	D=Diameter
	$1.5 < D \leq 3\text{mm}$	$N \leq 8$	N=Quantity
	$D > 3\text{mm}$	$N \leq 2$	
Linear Defect (including scratches, fluff, particles)	$W \leq 0.8\text{mm}, L \leq 15\text{mm}$	Ignored	W=Width, L=Length
	$0.8 < W \leq 1.5\text{mm}, L \leq 15\text{mm}$	$N \leq 5$	
	$W > 1.5\text{mm}$ or $L > 15\text{mm}$	NG	



Display Area
(Red Area)



Front Appearance (Red Area)



Back Appearance