STAND-PC
21.5-inch touch screen
LCD integrated PC
SPT-100A-22TP01

This product is an "All-in-One" PC with an integrated high-performance touch screen.

21.5-inch size of the display monitor is pre-installed, and more than 10 ports of rich, extendable interfaces such as DVI-I, 1000BASE-T, USB 3.0, serial and Audio are provided.

Embedded-type chipset and CPU have been adopted. The use of readily available parts ensures the ease of the use of the product.

* The contents in this document are subject to change without notice.
* Visit the CONTEC website to check the latest details in the document.
* Visit the CONTEC website to check the latest OS.
* The information in the data sheets is as of November, 2018.

* Specifications, color and design of the products are subject to change without notice.

Features

- Shipped to your door already assembled as an "All-in-One" PC.
The product is shipped from the factory with the display monitor, stand, PC unit pre-assembled. Just connect the cable to the PC and turn on the power to get started.

- Rich, extendable interfaces with more than 10 ports.
With rich and extendable interfaces that include 1000BASE-T×2, USB3.0×1, USB2.0×5, serial (RS-232C) ×2, and general I/O port ×1,

this is the best PC for use in industrial applications where peripheral device extension capability is a must.

- High-performance touch screen display.
The high-performance industrial touch screen display is of a type also used for medical equipment. It features touch operations similar to that of tablets or smartphones with 10-point multi-touch capabilities. It also provides superior visibility thanks to a viewing angle of 178°(Horizontal) / 178°(Vertical).

- The front side of the display meets the IP54 standard, and the fan-less PC design ensures dust-free specification.
The front side of the display is designed to be dust and drip free to meet the IP 54 standard. The PC unit contains no fan, which ensures free from dust or foreign substance.

- A low center gravity structure achieved by mounting the PC in the pedestal.
Mounting the PC unit in the pedestal of the display stand achieves a low center gravity structure and makes the product stable.

The pedestal part can also be set with screws.

- Long-term product availability contributes to low-cost operation.
In addition to the industrial display monitor, taking up CPU configurations can contribute to longer-term product availability.

This frees the users from operation checks or device structure changes each time PC models changes, and it also reduces the running costs of development or verification.

- Pre-installation of OS to support the latest integrated type
Windows 10 IoT Enterprise LTSB 2016 64-bit edition is installed to support Japanese, English, Chinese, and Korean.

Unlike Windows10 commonly used, long-term availability with the same specifications are guaranteed.   Moreover, Write Filter, one of the additional functions, enables the system to operate with Read-only.

Packing List

- Product [SPT-100A22TP01]…1
- AC Adapter for PC…1
- AC Power Cable for PC…1
- DVI Cable for Display…1
- DVI-Analog RGB Conversion Adapter…1 *1
- Stand Wiring Cover…1
- AC Adapter for Display…1
- AC Power Cable for Display…1
- USB Cable for Touch Screen…1 *1
- Cable Tie…2
- Serial Number Label…1
- Product Guide…1
- IPC Precaution List…1
- Warranty Certificate…1
- End User License Agreement (EULA)…1
- Setup Procedure Document…1
- CFast User's Guide…1
- Recovery Media…1

*1 Preset upon shipping.

Supported OS

- Windows 10 IoT Enterprise LTSB 2016 64-bit (Japanese / English / Chinese / Korean)
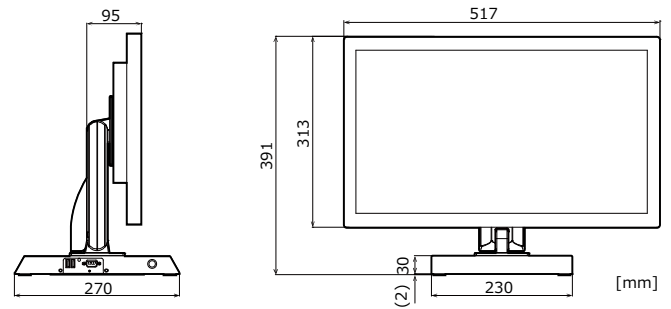
Specifications

Functional Specifications

Item		SPT-100A-22TP01
Processor		Intel® Atom™ Processor E3845 (1.9GHz 4 core/4-thread)
Main memory		4GB ECC (PC3-10600)
Storage		32GB SSD (Q-MLC CFast card, 1 partition)
Graphics	Processor built-in	Intel®HD graphics
Video memory/ standard-resolution		Share with the main memory / 640×480 - 1,920×1,080 (digital)/ 16,770,000 colors
Display	Panel type	21.5-inch wide Gloss screen IPS panel
	Touch screen detection system	Projected capacitive touch screen 10-Point multi touch
	Touch screen communication method	USB
	Aspect ratio	16 : 9
	Pixel pitch	0.247 x 0.247 mm
	Resolution (max)/ Display color (max)	1,920 x 1,080 (60Hz) /16,770,000 colors
	Contrast ratio (max)	1,000 : 1
	View angle (horizontal/vertical)	178°(Horizontal) / 178°(Vertical)
	Response time	8ms (Gray to Gray)
	Maximum luminance (with touch screen)	225 cd/m^2
	Dust-proof, Drip-proof,	Display front side IP54-compliant
External interface	LAN	Intel I210IT controller 2×1000BASE-T/100BASE-TX/10BASE-T (Wake On LAN support)
	USB	1×USB 3.0, 5×USB 2.0
	RS-232C	2×RS-232C 9-pin D-SUB connector (male) Baud rate: 50 - 115,200bps)
	Display	1×DVI-I (29-pin DVI-I connector)
	Audio	1×LINE OUT, 1×MIC IN (HD Audio compliant)
Power supply (Display)	Rated power supply input voltage	100 - 240VAC
	Range of input voltage	90 - 264VAC
	Power consumption	48W
Power supply (PC)	Rated power supply input voltage	100 - 240VAC
	Range of input voltage	90 - 264VAC
	Power consumption	40W
	External device power supply capacity	CFast card slot : +3.3V : 1A (500mA×2) USB3.0 I/F : +5V : 0.9A (900mA×1) USB2.0 I/F : +5V : 2.5A (500mA×5)
Physical dimensions (mm)		* Display horizontal installation 517(W) x 270(D) x 391(H) (No protrusions) *Display vertical installation 313(W) x 270(D) x 596(H) (No protrusions)
Weight		10kg (Excluding AC adapter)
Operating system		Windows 10 IoT Enterprise LTSB 2016 64-bit (Japanese/English/Chinese/Korean)

Installation Environment Requirements

Item		SPT-100A-22TP01
Operating temperature		5 - 40℃
Operating Humidity		20 - 80%RH (No condensation)
Storage temperature		-20 - +60℃
Operating Humidity		5 - 80%RH (No condensation)
Floating dust particles		Not to be excessive
Corrosive gases		None
Line-noise resistance	Line noise	AC line/±2KV, Signal line/±1KV (EN61000-4-4 Level3, IEC61000-4-4 Level3)
	Static electricity resistance	Contact discharge / ±4kV (IEC61000-4-2 Level 2, EN61000-4-2 Level 2) Atmospheric discharge / ±8kV (EN61000-4-2 Level 3, IEC61000-4-2 Level 3)
Vibration resistance	Sweep resistance	10 - 57Hz / semi-amplitude: 0.075 mm, 57 - 150Hz /1G 40 min. each in x, y, and z directions (JIS C60068-2-6 -compliant, IEC60068-2-6 -compliant)
Shock resistance		10G, half-sine shock for 11 ms in x, y, and z directions (JIS C60068-2-27-compliant, IEC60068-2-27-compliant)
Standard		VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive)

Physical Dimensions

Display horizontal installation

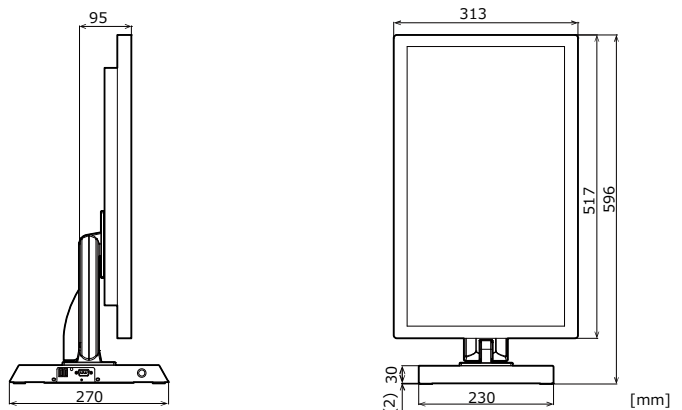### Display vertical installation

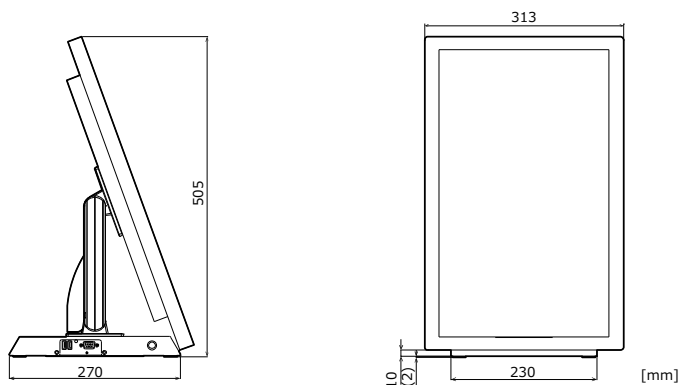*When installing the display vertically, connecting cables need to be acquired individually.

Recommended cables

Name	Model	Maker
DVI cable (1m)	DLD2-1M-TL	THIRDWAVE Corporation
USB cable (1m)	U2C-JB10BK	ELECOM CO.,LTD

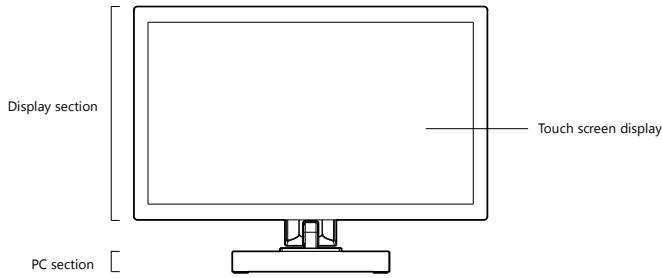### Set the display bracket on the lower side
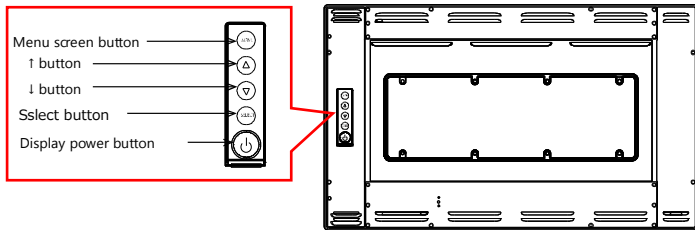

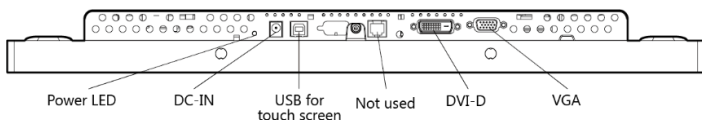### Set the display bracket in the center
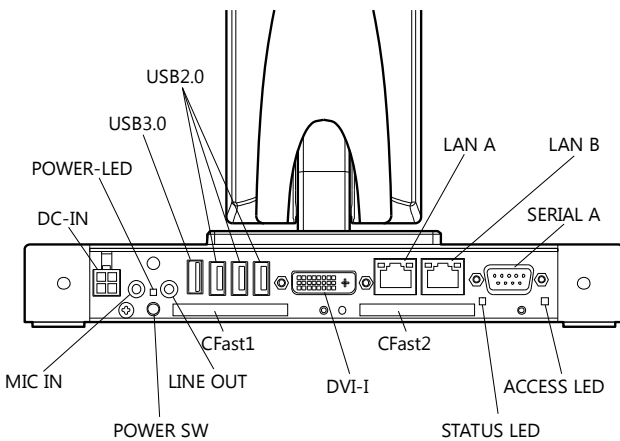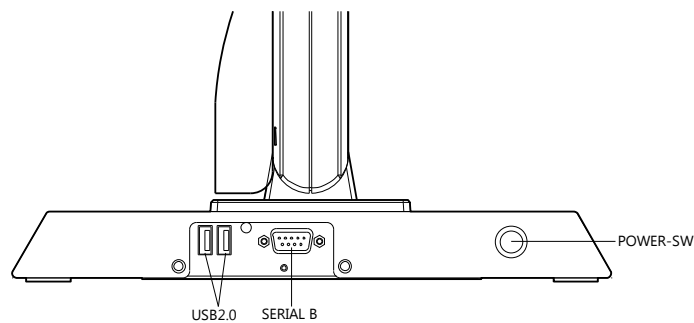
Component Name

Product front view

Display section

Touch screen display

PC section

Display section rear view

Menu screen button
↑ button
↓ button
Sslect button
Display power button

Display section bottom view

Power LED   DC-IN   USB for touch screen   Not used   DVI-D   VGA

PC section connector view

USB2.0
USB3.0
POWER-LED
DC-IN
LAN A   LAN B
SERIAL A
MIC IN   LINE OUT   CFast1   DVI-I   CFast2   ACCESS LED
POWER SW   STATUS LED

PC section side view

POWER-SW
USB2.0   SERIAL B

Component Function

Name	Function
Display section bottom	
POWER LED	Power ON display LED
DC-IN	DC power input connector
USB	USB for the touch screen TYPE-B connector x 1
DVI-D	Display port (24-pin Female)
VGA	Display port (15-pin HD-SUB Female)
PC section connector	
POWER LED	PC power ON display LED
STATUS LED	Status LED
ACCESS LED	CFast disk access display LED
DC-IN	DC power input connector
POWER-SW	Power switch
MIC IN	Mic input (3.5φ PHONE JACK)
LINE OUT	Line out (3.5φ PHONE JACK)
DVI-I	Display (29-pin Female)
USB3.0	USB3.0 port TYPE-A connector ×1
USB2.0	USB2.0 port TYPE-A connector ×3
LAN A	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
LAN B	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
CFast1	CFast card slot (SATA connection)
CFast2	CFast card slot (SATA connection)
SERIAL A	Serial port A connector (9-pin D-SUB Male)
PC section side	
USB2.0	USB2.0 port TYPE-A connector ×2
SERIAL B	Serial port B connector (9-pin D-SUB Male)
POWER-SW	Power switch

For inquiry, please contact:
https://www.n-denkei.com/malaysia/