PANEL-PC
With the high-performance 7th-generation Intel®
CPU processor, 12.1inch/15inch
XPT-T1000 Series

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

This product is a fan-less, high-performance, industrial-use PANEL computer that is equipped with the 7th-generation Intel® Core™ i7-7600U/Core i5 7300U CPU processor. Along with its power-saving and high-performance features, this product has a rich variety of interfaces and achieves fan-less operation by way of natural air-cooling.

The size of LCD is selectable from 12.1-inch or 15-inch to suit the user's needs.

Various interfaces such as dual LAN / USB3.0 / DisplayPort / DVI-D / RS-232C, and the slot-in 2.5 inches SATA disk bay unit being installed. Additionally, the product employs 5-wire resistive touch to maintain the durability.

Embedded-type CPU has been adopted. The use of readily available parts ensures the product to be applied easily. In addition, Contec-customized BIOS allows support to be provided at the BIOS level.

Replaceable with our earlier products of the PT-956S series, this PANEL computer can be easily replaced into the existing system.

* 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 April, 2024.

system alteration.

*1 Only the SSD 256GB (TLC) model are compatible with the " Power failure protection system ".
*2 with Load 300g, Speed twice/second, by machine keying.
*3 Windows 10 IoT Enterprise 2019 LTSC contains UWF (Unified Write Filter) function. It protects the disk from being actually written by redirecting data into such as RAM.

Features

- Seventh-generation Core i7 / Core i5 processor adopted
This product adopts the CPU that saves power consumption and also provides high computing and graphic performances.
Embedded-type CPU makes the stable supply possible.

- Fan-less design reduces maintenance work
The product is fan-less to ensure a totally spindle-less design that simplifies maintenance, relieving the concern about dust or foreign matter to get into the product. Moreover, along with minimized use of degrading parts greatly reduce maintenance work.

- "Power failure protection system" features power-off without OS shutdown
Equipped with the "Power failure protection system" function that protects data and prohibits writing to storage in the event of power failure *1.   Along with the lockdown (disk writing suppression) function of Windows IoT Enterprise, power can be safely turned off without a shutdown process. Moreover, file system damage or data damage caused by sudden power failure can be avoided.

- A wide range of power supplies (10.8 - 31.2VDC) supported
As the product supports a wide range of power (10.8 - 31.2VDC), it can be used in a variety of power environments. The separately available AC adapter adds support for 100- 240VAC power.

- Major types of peripherals are supported with rich interfaces
It has a variety of extended interface such as DVI-D x 1, DisplayPort×1, 1000BASE-T x 2, USB3.0 x 4, USB2.0 x 2, serial (RS-232C) x 2.
It has two slot-in type of 2.5-inch SATA disk slots, providing the ability to separate data from the operating system, as well as the convenience of being able to use one slot for system startup and the other for maintenance or for taking home system logs or collected data.

- Adopting a 5-wire resistive film touch-screen holds high durability
It has a 5-wire resistive film touch-screen that maintains high durability. The operating life is long-lasting of 36 million times. *2

- The attachment fitting and cable ties prevent problems caused by cable disconnections
For connectors with no locking mechanism such as USB cable, unnecessary trouble can be avoided by the use of cable ties for prevention of cable disconnection.

- Safety design required for embedded applications
For Windows 10 IoT Enterprise 2019 LTSC pre-installed type, it is possible to use the Write Filter *3 function of OS.
It is designed for safety required for embedding purpose, for example, prohibiting unwanted writing to the HDD or SSD with Write Filter function will relieve the concern about the writing limits to the HDD or SSD and prevent an unintentional

Included Items

Name	XPT-T1000LX/ XPT-T1010LXC [12.1" model] Pcs.	XPT-T1000HX [15" model] Pcs.
The Main Body	1	1
The Attachment Fittings	8	10
DisplayPort Cable Removal Prevention Fitting	1	1
Screws For 2.5 inches Hard Disk (M3 x 4)	8 *1	8 *1
Washer Assembled Screws (M3 x 8 Black)	1	1
Power Supply Connector Complete Set		
Power Connector	1	1
Contact	4	4
Cable Tie for USB/Audio Cable	1	1
Cable Tie for DisplayPort Cable	1	1
Product Guide	1	1
AC adapter Complete Set		
AC adapter	1 *2	1 *2
AC power cable	1 *3	1 *2

*1   The number of items packed in the OS pre-installed type is different since some of them are already equipped to the Mail Body.
     With 1 disk : 4pcs, With 2 disks : 0pcs
*2   Only packed in the product type with the AC adapter.

Specification

Function Specifications

Item		Description
CPU		XPT-T1000xxx : Intel® Core™ i7 Processor 7600U (2.80GHz) XPT-T1010xxx : Intel® Core™ i5 Processor 7300U (2.60GHz)
BIOS		BIOS (mfd. by AMI)
Memory		8GB (260-pin SO-DIMM), PC4-17000 (DDR4-2133)
Graphics Controller		Intel® HD Graphics 620 (CPU integrated)
LCD type	LCD	XPT-T10x0xxx :12.1-inch TFT color LCD, XGA (1024 x 768), 16,770,000 colors XPT-T10x0Hxxx : 15-inch TFT color LCD, XGA (1024 x 768), 16,770,000 colors
	Backlight	LED method, The ON/OFF can be controlled by software command.
Touch-screen *1 *2	Resolution	4096×4096 (emulated in 1024 x 768 mode)
	Detection method	Five-wire resistive film analog method
	Connection	Internal serial port
System resolution	DVI-D	800 x 600, 1,024 x 768, 1,152 x 864, 1,280 x 600, 1,280 x 720, 1,280 x 800, 1,280 x 960, 1,280 x 1,024, 1,360 x 768, 1,366 x 768, 1,400 x 1,050, 1,440 x 900, 1,600 x 900, 1,600 x 1,200, 1,920 x 1,080, 1,920 x 1,200 (16,770,000 colors)
	DisplayPort	800 x 600, 1,024 x 768, 1,152 x 864, 1,280 x 600, 1,280 x 720, 1,280 x 800, 1,280 x 960, 1,280 x 1,024, 1,360 x 768, 1,366 x 768, 1,400 x 1,050, 1,440 x 900, 1,600 x 900, 1,600 x 1,200, 1,680 x 1,050, 1,790 x 1,344, 1,856 x 1,392, 1,920 x 1,080, 1,920 x 1,200, 1,920 x 1,440, 2,048 x 1,152, 2,048 x 1,536, 2,560 x 1,440, 2,560 x 1,600, 2,560 x 1,920, 2,560 x 2,048, 3,840 x 2,160 (16,770,000 colors)
Audio		HD Audio compliant, LINE OUT x 1, LINE IN x 1, MIKE IN x 1
SATA *3		2.5 inches S-ATA disk Slot-in x 2 Serial ATA 3.0 compliant support
LAN		Intel I210IT controller 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector x 2 (supports Wake On LAN)
USB		USB 3.0-compliant x 4 ports USB 2.0-compliant x 2 ports
Serial		RS-232C 3 ports (one of the ports is used for touch-screen), Baud rate: 50 - 115,200bps
Hardware monitoring		Monitoring CPU temperature, board temperature, power voltage
Watchdog timer (WDT)		Software programmable, 255 level (1sec - 255sec) Time up allows reset shutdown or external output.
Real Time Clock		Lithium backup battery life: 10 years or longer The real-time clock is accurate within ±3 minutes (at 25°C) per month (CPU built-in RTC).
Power Management		Power management setup via BIOS Power On by Ring/Wake On LAN Supports ACPI Power management
Interface	Display	DVI-D x 1 (25-pin DVI-D connector), Display Port x 1
	Audio	LINE OUT: 3.5φ Stereo mini jack, Full-scale output level 1.2Vrms (Typ.) LINE IN: 3.5φ Stereo mini jack, Full-scale output level 1.4Vrms (Typ.) MIC IN: 3.5φ Stereo mini jack, Full-scale input level 1.4Vrms (Typ.)
	Serial ATA slot	Slot-in 2.5 inches SATA hard disk x 2
	LAN	2-port (RJ-45 connector)
	USB	USB3.0 compliant 4port (TYPE-A connector) USB2.0 compliant 2port (TYPE-A connector)
	RS-232C	2-port (9pin D-SUB connector [male])
Power supply	Rated input voltage	12 - 24VDC *4
	Input voltage range	10.8 - 31.2VDC
	Current consumption	XPT-T10x0LXx : 12V 4.9A, 24V 2.6A XPT-T1000HX : 12V 4.6A, 24V 2.3A
	External device power supply capacity	SATA slot: +5V 2A (1,000mA x 2 per slot) USB3.0 I/F: +5V 3.6A (900mA x 4 per port) USB2.0 I/F: +5V 1.0A (500mA x 2 per port)
Waterproofing and dust-proofing		Front part conforming to IP65 (Use the packing supplied.)
Cutting dimensions of the screen (mm)		XPT-T1000LX : 303(W) x 243(H) XPT-T1000HX : 358(W) x 289(H) XPT-T1010LXC : 331(W)x272(H)
Physical dimensions (mm)		XPT-T1000LX : 316(W) x 73(D) x 256(H) XPT-T1000HX : 373(W) x 73(D) x 304(H) XPT-T1010LXC : 346(W)×73(D)×287(H) (Not including the attachment fittings or protrusions)
Weight		XPT-T1000LX : 4.2kg (approx.) XPT-T1000HX : 5.1kg (approx.) XPT-T1010LXC : 4.8kg (approx.) (Not including the attachment fittings)

*1   Accuracy is within the error of 1.5% for the periphery of the touchable area, and the other areas are within 1%.
*2   When using Windows 10, the mouse cursor is not displayed if the mouse device is not connected. The virtual mouse driver is required to display the cursor.   Please download it from the CONTEC website.
*3   The capacity of storage device in the OS pre-installed type is a value when 1GB is calculated by 1 billion bytes. The capacity that can be recognized from OS might be displayed less than the actual value.
*4   Use a power cable shorter than 3m.

Installation Environment Requirements

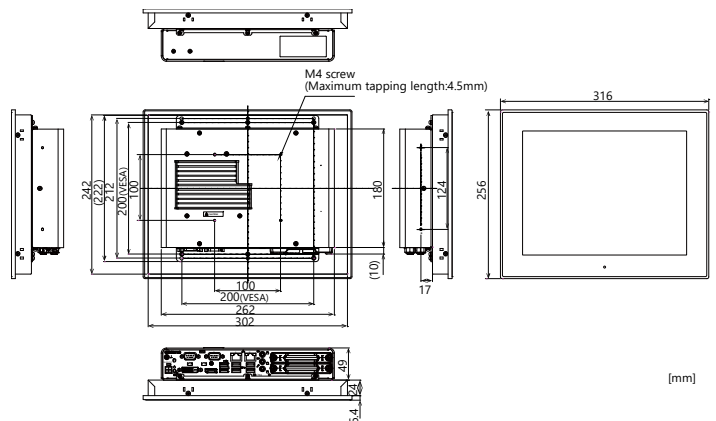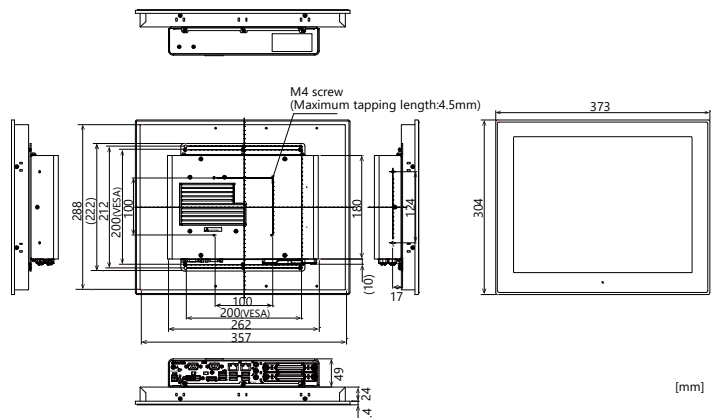| Item		Description
Operating temperature		0 - 45°C
Operating Humidity		-10 - +60°C
Non-operating ambient temperature		10 - 90%RH (No condensation)
Non-operating ambient humidity		10 - 90%RH (No condensation)
Floating dust particles		Not to be excessive
Corrosive gases		None
Line-noise resistance	Line noise	AC Line /±2kV *5, Signal Line/±1kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3)
	Static electricity resistance	Touch /±4kV (IEC61000-4-2 Level 2, EN61000-4-2 Level 2) Air /±8kV (IEC61000-4-2 Level 3, EN61000-4-2 Level 3)
Vibration resistance (The product alone)	Sweep resistance	(1) HDD built-in type (when current is applied): 10 - 50Hz/0.5G 25minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant) (2) HDD built-in type (when current is not applied) and other types: 10 - 57Hz /semi-amplitude vibration 0.075mm, 57 - 150Hz/1.0G 40minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)
Impact resistance		10G half-sine shock for 11ms in X, Y, and Z directions (JIS C 60068-2-27-compliant, IEC 60068-2-27-compliant)
Grounding		Class D grounding, SG-FG / continuity
Standard		VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA

*5 When AC adapter "PWA-90AWD1" is used.

Supported OS

-   Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
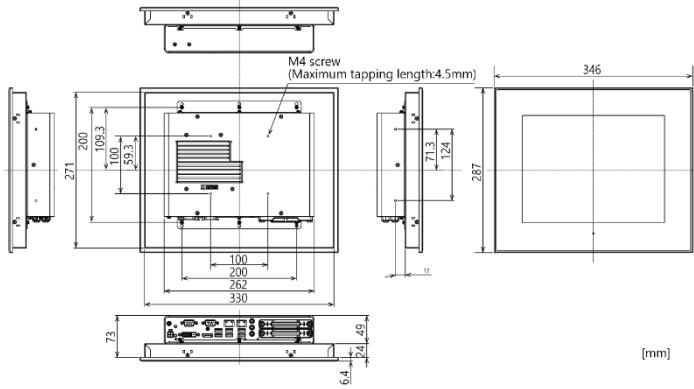
Physical Dimension

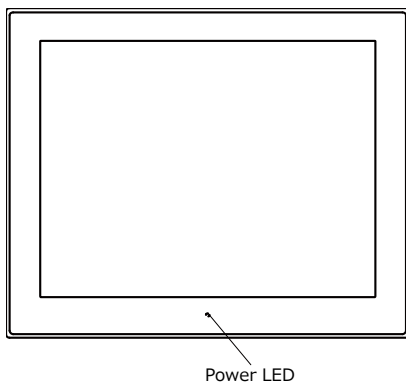### XPT-T1000LX [12.1-inch model]

[mm]

XPT-T1000HX [15-inch model]

[mm]

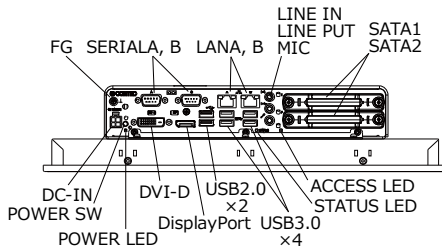## XPT-T1010LXC [12.1inch(PT-955LXC compatible) model]

M4 screw
(Maximum tapping length:4.5mm)

[mm]

Optional Products

Item	Model	Description
AC adapter	PWA-90AWD1	Switching AC Adapter (12VDC 7.5A)
Storage	PC-HDD100GS-2 *1	2.5-inch SATA HDD 100GB
	SSD-256GS-2M	2.5-inch SATA SSD 256GB (MCL)
	SSD-256GS-2TP	2.5-inch SATA SSD 256GB (TCL)
Screen protective sheets	IPC-CV12	12.1-inch screen protective sheets (10 sheets)
	IPC-CV15	15-inch screen protective sheets (10 sheets)

*1 Not available for XPT-T1010LXC-1230010.

CAUTION

If a product other than our optional one is used, the normal operation may be impaired or the functions may be limited.
Note that the sheets may not protect the screen because it is a few millimeters smaller than the screen size..

Protective sheets		XPT-T1000xX Series	
Model	Sheet size (mm)	Model	Screen size (mm)
IPC-CV12	250.0 x 188.0	XPT-T1000LX	249.0 x 187.5
IPC-CV15	308.0 x 232.0	XPT-T1000HX	307.4 x 231.3

* Visit the CONTEC website for the latest optional products.

Nomenclature of Product Components

Front

Power LED

Display Screen Bottom

FG SERIALA, B LANA, B LINE IN LINE PUT MIC SATA1 SATA2

DC-IN/ POWER SW
POWER LED
DVI-D
DisplayPort
USB2.0 ×2
USB3.0 ×4
ACCESS LED
STATUS LED

Component Function

Name	Function
Front	
POWER LED	Power ON display LED
Display Screen Bottom	
POWER SW	PC Power switch
POWER LED	Power ON display LED
ACCESS LED	SATA disk access display LED
STATUS LED	Status LED
DC-IN	DC power input connector
LINE IN	Line in (3.5φ PHONE JACK)
LINE OUT	Line out (3.5φ PHONE JACK)
MIC IN	Mic in (3.5φ PHONE JACK)
LAN A	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
LAN B	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
USB 3.0	USB 3.0 port connector x4
USB 2.0	USB 2.0 port connector x2
SERIAL A	Serial port A connector (9-pin D-SUB male)
SERIAL B	Serial port B connector (9-pin D-SUB male)
DVI-D	Display (25-pin female)
DisplayPort	Display (20-pin female)
SATA1	2.5-inch HDD/SSD slot
SATA2	2.5-inch HDD/SSD slot

Product Lineup

This product is offered as a BTO model with customizable LCD size, OS, storage devices, and RAID configuration according to your needs, or as a pre-configured standard model.
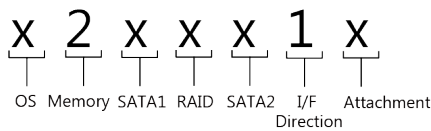
BTO MODEL

Base model

XPT-T10x0xxx

CPU   LCD size / Resolution
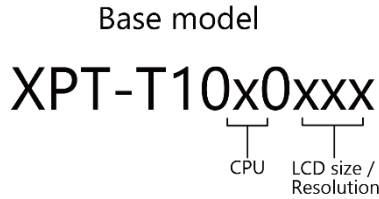
Base

Model	CPU	LCD size / Resolution
XPT-T1000LX	Core i7 7600U processor	12.1inch / XGA (1024 x 768)
XPT-T1000HX		15inch / XGA (1024 x 768)
XPT-T1010LXC	Core i5 7300U processor	12.1inch / XGA (1024 x 768) (PT-955LXC compatible)

Type

x 2 x x x 1 x

OS Memory SATA1 RAID SATA2 I/F Direction Attachment

The list of BTO model configuration

Base Model		Type												
		OS		Memory		SATA1 *1		RAID		SATA2 *2		I/F Direction		Attachment
XPT-T1000LX	+	0	None	2	8GB	0	None	0	None	0	None	1	Vertical	0	None
						1	SSD(MLC) 256GB			1	SSD(MLC) 256GB				
XPT-T1000HX		1	Windows 10 IoT Enterprise 2019 LTSC			2	HDD 100GB	2	Software RAID	2	HDD 100GB			1	AC adapter *3
						3	SSD(TLC) 256GB			3	SSD(TLC) 256GB				

*1   OS is already installed.
   The capacity of the disk in the OS pre-installed type is a value when 1GB is calculated by 1 billion bytes.
   The capacity that can be recognized from OS might be displayed less than the actual value.

*2   The disk is quipped in SATA2 slot when selecting RAID.   The same type of disks are quipped in SATA1 and SATA2 slots.

*3   The attachable AC adapter is the "PWA-90AWD1 (Input :100-240VAC, Output:12VDC 7.5A).

Standard MODEL

12.1" XGA (1024 x 768) with Core i7 7600U processor model

Model	OS	Memory	SATA1	RAID	SATA2	Attachment
XPT-T1000LX-0230010	None	8GB	None	None	None	None
XPT-T1000LX-0230011						AC adapter *1
XPT-T1000LX-0230310					SSD (TLC) 256GB	None
XPT-T1000LX-0230311						AC adapter *1
XPT-T1000LX-1230010	Windows 10 IoT Enterprise 2019 LTSC		SSD (TLC) 256GB		None	None
XPT-T1000LX-1230011						AC adapter *1
XPT-T1000LX-1230310					SSD (TLC) 256GB	None
XPT-T1000LX-1230311						AC adapte *1r
XPT-T1000LX-1232310				Software RAID		None
XPT-T1000LX-1232311						AC adapter *1

*1 The attachable AC adapter is the "PWA-90AWD1 (Input :100-240VAC, Output:12VDC 7.5A).

15" XGA (1024 x 768) with Core i7 7600U processor model

Model	OS	Memory	SATA1	RAID	SATA2	Attachment
XPT-T1000HX-0230010	None	8GB	None	None	None	None
XPT-T1000HX-0230011						AC adapter *1
XPT-T1000HX-0230310					SSD (TLC) 256GB	None
XPT-T1000HX-0230311						AC adapter *1
XPT-T1000HX-1230010	Windows 10 IoT Enterprise 2019 LTSC		SSD (TLC) 256GB		None	None
XPT-T1000HX-1230011						AC adapter *1
XPT-T1000HX-1230310					SSD (TLC) 256GB	None
XPT-T1000HX-1230311						AC adapter *1
XPT-T1000HX-1232310				Software RAID		None
XPT-T1000HX-1232311						AC adapter *1

*1 The attachable AC adapter is the "PWA-90AWD1 (Input :100-240VAC, Output:12VDC 7.5A).

12.1" (PT-955LXC compatible) XGA (1024 x 768), with Core i5 7300U processor model

Model	OS	Memory	SATA1	RAID	SATA2	Attachment
XPT-T1010LXC-1230010	Windows 10 IoT Enterprise 2019 LTSC	8GB	SSD (TLC) 256GB	None	None	None