

PANEL-PC
Fanless, ARM Cortex-A8, SD
12.1inch, WEC7, AC input
PT-310 Series



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

Model	Shape	CPU	Memory	Pre-installed OS, Storage device
PT-310LS-AC353111	12.1inch	ARM® Cortex-A8 AM3354 600MH	256MB	WEC7 (Japanese version), SD card (SLC) 512MB
PT-310LS-AC353112				WEC7 (English version), SD card (SLC) 512MB

WEC7 Windows Embedded Compact 7

Features

Improved durability due to its 5-wire resistive film touch panel

This product uses a 5-wire resistive film touch panel that has excellent durability, which provides a long operating lifetime. Compared to our conventional product, the IPC-PT/LS11 Series, the number of operations has increased from 10 million to 36 million*1.

*1 This value has been tested by mechanical touching under 300g of force at a rate of two presses per second.

Front side in IP65-rated dustproof/drip-proof structure

Front side in IP65-rated dustproof/drip-proof structure.

Slitless/fanless design that reduces maintenance work

This product's spindle-less design eliminates the heat dissipation slit and CPU fan and adopts SD card for the storage. It is free from dusts and foreign objects, and the use of the parts that degrades over the years is avoided in most cases, resulting in drastic alleviation of the maintenance burden.

Supports a rich variety of main peripheral types

This product is standard-equipped with 3 serial channels (RS-232C × 2, RS-422A/485 × 1), USB, SD card slot, 100BASE-TX, 4 channels of general-purpose, isolated digital I/O ports, and stereo sound function. The drivers for the equipped interfaces are installed as standard.

Falling-off prevention tools and cable clamps provided to avoid trouble caused by disconnected cable

This product stays trouble-free, being equipped with USB removal prevention fitting and cable clamp for connectors with no locking mechanism, such as USB cable, and with hardware to properly mount and avoid falling out of SD card.

High-speed startup

XIP & memory loading boot function, enabling high-speed startup/operation.

System memory

256MB (SDRAM) system memory standard. 128 MB of internal, erasable programmable Flash ROM available as a user area, allowing user.

This product is a fanless computer for embedded applications. It features an ARM® Cortex-A8 AM3354 600MHz chipset.

As the unit has assorted interfaces including the USB, SD Card, 100BASE-TX, and Serial connectors, it can be used widely as a general-purpose terminal for embedded applications. It uses Windows Embedded Compact 7 loaded from Flash ROM along with user programs, the unit is implemented as diskless hardware without the need for a shutdown procedure.

Also, this product uses a 5-wire resistive film touch panel, which has improved durability. The front side has an IP65-rated dustproof/drip-proof structure. Also, this product uses a 5-wire resistive film touch panel, which has improved durability.

This product can be used in a variety of applications as the controller such as operation terminals located in manufacturing lines, distribution systems, and other parts of factories.

- * 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 October, 2020.

Specifications

Function specifications

Model	PT-310LS-AC35311x	
CPU	ARM® Cortex-A8 AM3354 600MHz	
OS	Microsoft Windows Embedded Compact 7	
Graphic	Controller	Built in CPU
	Video RAM	Main memory shared
LCD type	LCD type	12.1-inch TFT color LCD, SVGA(800 x 600), 260,000 colors
	Backlight	LED method, The ON/OFF software can control.
Memory	Flash memory (NFDISK)	512MB
	System memory	256MB DDR3 SDRAM
	OS loading Flash memory	128MB
Touch panel *1	Resolution	4096 x 4096 (emulated in 1024 x 768)
	Detection method	5-wire resistive film touch panel
	Connection	Internal serial port
Audio	ø3.5 Stereo mini jack Full-scale output level 1.0Vrms (Typ.) x 1	
Front switch	Power LED:	1 points
	Front SW input:	3 points
SD card slots	SD Card Type I × 2 PT-310LS-AC35311x: Built-in SD card slot (SLC) (512MB x 1, NFDisk) *2	
LAN *2	100BASE-TX/10BASE-T 1 port	
USB*3	USB 2.0-compliant 3 port	
Serial I/F	RS-232C(generic)	2 port, Baud rate: 50 - 115,200bps
	RS-422A/485(generic)	1 port, Baud rate: 300 - 115,200bps
General-purpose I/O	Optocoupler isolated inputs and outputs: 4 channels each	
RTC	The real-time clock is accurate within ±3 minutes (at 25°C) per month (CPU built-in RTC), Lithium backup battery life : 10 years or more	
Power supply	Power supply connector	100VAC
	Input power supply voltage	100V - 240 VAC
	Current consumption (Max.)	100V 0.34A
	External device power supply capacity	SD card slots: +3.3V: 0.4A (200mA x 2) USB2.0 I/F: +5V: 1.5A (500mA x 3)
Physical dimensions (mm)	315 (W) x 50.4(D) x 254(H) (Storage device isn't included)	
Panel cut dimensions (mm)	303 (W) x 243(H)	
Weight	About 3.1kg (without mounting bracket)	

*1 The tapping error precision is within 1.5% in the 10mm of the outer circumference of the area that can be tapped and is within 1% in all other parts of the area that can be tapped.

*2 The capacity that can be recognized from OS might be displayed fewer than an actual value.

*3 Use the USB interface to connect a keyboard/mouse.

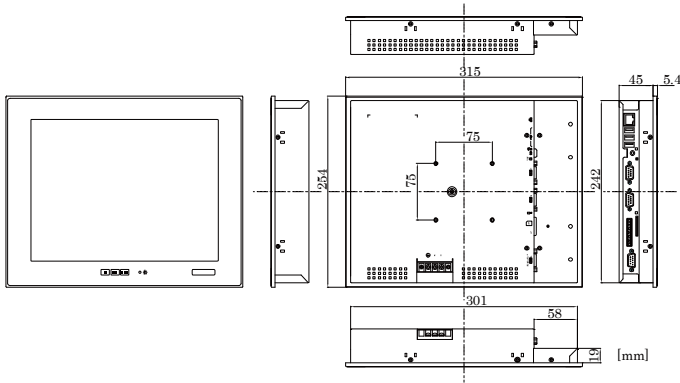
Installation Environment Requirements

Model		PT-310LS-AC35311x
Operating temperature *4		0 - 50 °C
Storage temperature		-10 - 60 °C
Operating humidity		10 - 90%RH (No condensation)
Floating dust particles		Not to be excessive
Corrosive gas		None
Noise resistance	Line noise	AC line / ±2kV *5 Signal line / ±1kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3)
	Static electricity resistance	Contact discharge / ±4kV (IEC61000-4-2 Level 2, EN61000-4-2 Level2), Atmospheric discharge / ±8kV (IEC61000-4-2 Level 3, EN61000-4-2 Level3)
Vibration resistance	Sweep resistance	10 - 57Hz/0.075 mm (semi-amplitude (0-p)) One cycle (10-150-10Hz) of 1oct/min test at 9.8m/s ² (1G) between 57 and 150Hz 5 times in three (X/Y/Z) directions (40minutes each) (JIS C60028-2-6-compliant, IEC60068-2-6-compliant)
	Impact resistance	10G, half-sine shock for 11ms in x, y, and z directions (JIS C60068-2-27-compliant, IEC60068-2-27-compliant)
Water-proof and dust-proof		IP65, front
Grounding		Class D grounding, SG-FG / continuity
Standard		VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive)

*4 For more details on this, please refer to User's Manual, "Installation Requirements".

*5 When using the IPC-ACCODE3 AC power cable.

Physical Dimensions



*1 The M4 screw tips must protrude into the inside of the boss to a depth of less than 4mm.

Supported OS

Windows Embedded Compact 7 Japanese
Windows Embedded Compact 7 English

Packing List

Name	PT-310LS-AC35311x
	Pcs.
The main body	1
The attachment fittings	8
SD card removal prevention fitting	1
I/O connector	1
Screws for attachment fittings Three-point sems screw (M3×6)	3
Cable clamp	3
Product guide	1
IPC Precaution List	1
Warranty Certificate	1
Serial Number Label	1

* The user's manual, software manual * 1 for this product is available as a PDF file through CONTEC's Web site. The user's manual provides such information as hardware settings, functions for each component settings. Refer to it as necessary

*1 PT-310LS-AC353111: Please refer to the software manual (Japanese version).
PT-310LS-AC353112: Please refer to the software manual (English version).

List of Options

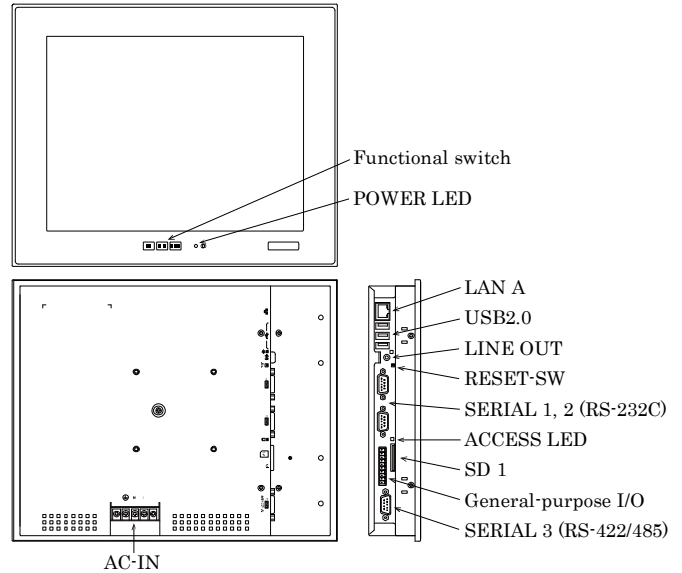
Cable

IPC-ACCODE3 AC power cable (2 m, 125 VAC supported)

Screen protective sheets

IPC-CV12 12.1-inch screen protective sheets (10 sheets)

Component Name



Name	Function
POWER LED	Power ON display LED
ACCESS LED	SD disk access display LED
RESET-SW	Power reset switch
AC-IN	AC power input terminal
LINE OUT	Line out (3.5φ PHONE JACK)
Front SW	Functional switch (F1, F2, F3)
USB2.0	USB2.0 port TYPE-A connector x 3
LAN A	Ethernet 100BASE-TX/10BASE-T RJ-45 connector
SD 1, 2	SD card slot SD2 SD card (512MB), Built-in
SERIAL 1, 2, 3	SERIAL 1,2: RS-232C Serial port 2 connector (9pin D-SUB/male) SERIAL 3: RS-422A/485 Serial port 1 connector (9pin D-SUB/male)
General-purpose I/O	Isolated I/O connector