PANEL-PC, Fanless
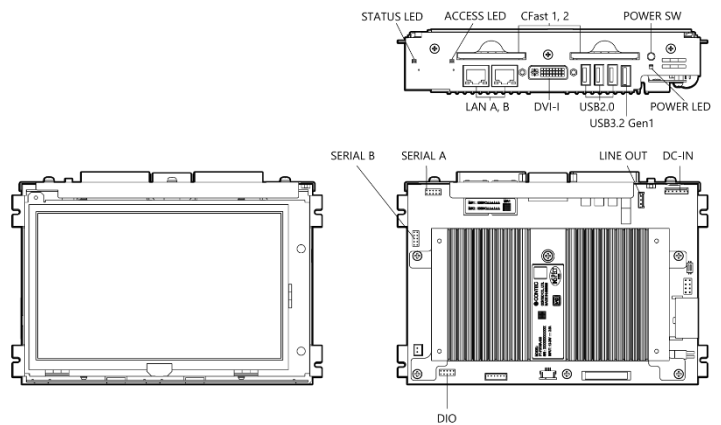## Atom E3845, 7inch WXGA, 12 - 24VDC input
PT-F07WA-100-J103NA

This product is a fanless PANEL computer that is equipped with an Intel® Atom ™ processor   E3845 1.91GHz. With a 7-inch LCD touch-screen, the product allows to be integrated into various devices.

Extendable interfaces such as DVI-I, LAN, USB3.2 Gen1 (USB3.0), USB2.0, and Serial are provided. It employs a CFast card for storage and is fanless to ensure a totally spindleless design that simplifies maintenance.

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.

* The contents in this document are subject to change without notice.
* Visit the CONTEC website to check the latest details.
* Visit the CONTEC website to check the latest OS.
* The information in the data sheets is as of October, 2022.

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

Features

- Contributing to running cost reduction and energy efficiency
Adopting the low-power platform of Intel® Atom TM Processor E3845 achieves lower power consumption while still ensuring sufficient performance.

- Fanless design that reduces maintenance and inspection work
This product employs a CFast card for storage and the spindle-less design eliminates CPU fan. It relieves the concern about dust or foreign matter to get into the product. Furthermore, using the parts that degrade over time is minimized to reduce maintenance load.

- Remote power management function to reduce operation tasks
It supports system start-up externally via network (Wake On LAN) and modem (Power On by Ring). It encourages significant labor saving in operation.

- High definition supported DVI external display output
This product has the up to 1920 x 1080 pixels DVI external display output as standard feature. A standalone two-display application which, for example, displays the screen on a big LCD TV separately from the main LCD, can be built.

- 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.

- Major types of peripherals are supported with rich interfaces
It has a variety of extended interface such as DVI-D x 1, LAN x 2, USB3.2 Gen1 (USB3.0) x 1, USB2.0 x 3, serial (pin header) x 2.
It has two slot-in type of CFast card 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.

Included Items

Product...1
Product Guide...1

Component Name

Name	Function
DC-IN	DC power input (pin header connector)
POWER SW	PC Power switch
POWER LED	Power ON display LED
ACCESS LED	CFast access display LED
STATUS LED	DC power input connector Status LED
LINE OUT	LINE OUT (pin header connector)
CFast 1	CFast card connector
CFast 2	CFast card connector
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 3.2 Gen1	USB 3.2 Gen1 (USB 3.0) port connector x 1
USB 2.0	USB 2.0 port connector x 3
SERIAL A	Serial port A connector (pin header)
SERIAL B	Serial port B connector (pin header)
DIO	General-purpose (pin header)
DVI-I	Display (29-pin, DVI-I connector)

Supported OS

- Windows Embedded Standard 7 32bit

Specifications

Functional Specifications

Item		Description
CPU		Intel® Atom™ Processor E3845 1.91GHz
BIOS		BIOS (mfd. by AMI)
Memory		4GB (204-pin SO-DIMM x 1), PC3L-10600 DDR3L 1333 ECC
Graphics Controller		Intel® HD Graphics (CPU integrated)
LCD type	LCD	7-inch TFT color LCD, XGA (1024 x 768)
	Backlight	LED method, The ON/OFF can be controlled by software command.
Touch-screen *1	Resolution	4,096 x 4,096 (emulated in 800 x 480 mode)
	Detection method	Four-wire resistive film analog method
	Connection	Internal serial port
System resolution		1 port (29-pin DVI-I connector)
	DVI-D *2	640 x 480, 800 x 600, 1,024 x 768, 1,152 x 864, 1,280 x 600, 1,280 x 720, 1,280 x 768, 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, 1,680 x 1,050, 1,920 x 1,080 (16,770,000 colors)
	Analog RGB	640 x 480, 800 x 600, 1,024 x 768, 1,152 x 864, 1,280 x 600, 1,280 x 720, 1,280 x 768, 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, 1,680 x 1,050, 1,920 x 1,080, 1,920 x 1,200 (16,770,000 colors)
Audio		HD Audio compliant, LINE OUT x 1 (pin header connector) Full-scale output level 1.2Vrms (Typ.)
CFast Card slot		2 slots, CFast CARD Type I, bootable
LAN		RJ-45 connector x 2 Intel I210IT controller 1000BASE-T/100BASE-TX/10BASE-T, supports Wake On LAN
USB		USB 3.2 Gen1 (USB3.0)-compliant x 1 port (Type-A connector) USB 2.0-compliant x 3 ports (Type-A connector)
Serial		RS-232C 2 ports (pin header) 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
Power supply	Rated input voltage	12 - 24VDC *3
	Input voltage range	10.8 - 31.2VDC
	Current consumption	12V 2.5A
	External device power supply capacity	CFast card slot: +3.3V 1.0A (500mA x 2 per slot) USB3.2 Gen1 (USB3.0) I/F: +5V 0.9A (900mA x 1 per port) USB2.0 I/F: +5V 1.5A (500mA x 3 per port)
Cutting dimensions of the screen (mm)		154(W) x 93(H)
Physical dimensions (mm)		196(W) x 40.3(D) x 127.8(H) (Not including the attachment fittings or protrusions)
Weight		1.1kg (approx.) (Not including the attachment fittings)

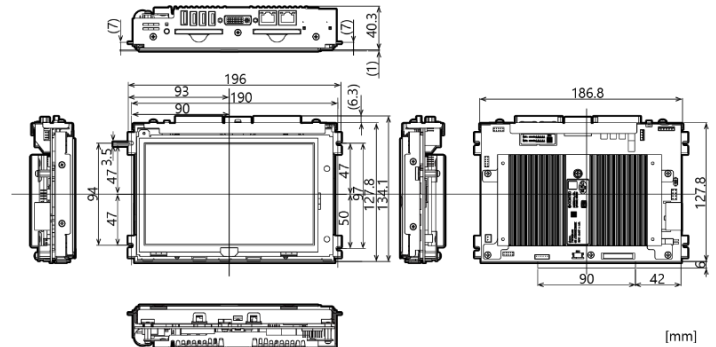*1 Linearity: ±2.0% max. The operating life is 10 million continuous keying (with touch screen inputs).
*2 The DVI display will be shown on the screen after you start Windows.
*3 Use a power cable shorter than 3m.

Environment Requirements

Item		Description
Operating Temperature		-10 - +55°C (at light load) -10 - +50°C (at max. load)
Storage Temperature		-10 - +60°C
Humidity		10 - 90%RH (No condensation)
Floating dust particles		Not to be excessive
Corrosive gases		None
Line-noise resistance	Line noise	AC Line /±2kV, Signal line / ±1kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3)
Vibration resistance (The product alone)	Sweep resistance	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 C60068-2-27-compliant, IEC 60068-2-27-compliant)
Grounding		Class D grounding, SG-FG / continuity
Standard		VCCI Class A

Physical Dimensions

[mm]