

Embedded-PC
EPC-3010 Series



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

Features

Compatible with Intel® Core™ processor series Skylake
The product is equipped with the 6th-generation Intel® Core™ processor and greatly realizes lower-power consumption while ensuring fine performance of operation tasks and drawing. Adopting embedded-type CPU contributes to a stable supply.

Three types of CPU are lined up.

- Intel® Core™ i7-6700TE
- Intel® Core™ i5-6500TE
- Intel® Celeron™ G3900TE

CPU built-in high-performance graphics

Core i7/i5 model has corresponds to the Intel® HD Graphics 530.
Celeron model has corresponds to the Intel® HD Graphics 510.
Full HD video can be smoothly played. It also supports full HD output of the three-screen with the DVI-I, DisplayPort and HDMI.

Adopt removable storage

The product adopts front accessible 2.5-inch SATA storage, and also supports RAID function such as mirroring.

Extend peripherals freely. Rich interface

This product is equipped with a variety of expansion interfaces such as DVI-I, HDMI, DisplayPort, 1000BASE-T × 3, USB3.0 × 6, serial (RS-232C) × 4, such as audio. You can assist our use in various scenes.

Equipped with expansion slots that can house PCI-Express (x8) or PCI boards

The model with two expansion slots is equipped with two PCI bus slots.
The model with four expansion slots is equipped with one PCI-Express×8-bus slot and three PCI bus slots.
The maximum size of boards that can be installed is 176 (L) × 110 (H) mm.

The identical dimensions enable easy replacement with the EPC-2010 series

In order to replace the system with ease, this product has the same physical dimensions as the EPC-2010 series.

This product is a high-performance embedded-type personal computer equipped with the 6th-generation Intel® Core™ processor.

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

The CONTEC offers the model without an expansion slot and also two types of models with expansion slots.

EPC-3010 series

- The model without an expansion slot
- The model with expansion slots (two slots)
 - PCI bus: Two slots
- The model with expansion slots (four slots)
 - PCI-Express (x8 bus): One slot, PCI bus: Three slots

*The contents in this document are subject to change without notice.
*Visit the CONTEC website to check the latest details.
*The information in the data sheets is as of June, 2021.

Supported OS

- Windows10 IoT Enterprise LTSB 2016 64bit (Japanese / English / Chinese / Korean)
- Windows10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
- Windows 10 IoT Enterprise 2019 LTSC 64bit with Microsoft Edge (Chromium) (Japanese/English/Chinese/Korean)
- Windows7 Professional SP1 32bit (Japanese / English)
- Windows7 Professional SP1 64bit (Japanese / English)

Differences between the EPC-3010 Series and EPC-2010 Series

Model	EPC-3010 Series	EPC-2010 Series
CPU	Intel Core i7 Processor 6700TE 2.4GHz Intel Core i5 Processor 6500TE 2.3GHz Intel Celeron Processor G3900TE 2.3GHz	Intel Core i7 Processor 2710QE 2.1GHz Intel Core i5 Processor 2510E 2.5GHz Intel Celeron Processor B810 1.6GHz
Chipset	Intel Q170	Intel QM67
Memory	Max32GB, 260pin SO-DIMM Socket x 2, PC4-17000(DDR4 2133) DDR4 SDRAM	Max 8GB, 204pin SO-DIMM Socket x 2, PC3-10600(DDR3 1333) DDR3 SDRAM
Graphic Controller	Intel HD Graphics 530 (Core i7, Core i5 Model) Intel HD Graphics 510 (Celeron Model)	Intel HD Graphics 3000 (Core i7, Core i5 Model) Intel HD Graphics (Celeron Model)
Interface		
External display	DVI-I x 1, HDMI x 1, DisplayPort x 1 Supports three displays	Analog RGB x 1, HDMI x 1, DisplayPort x 1 Supports two displays
Serial ATA	2-slot, removable, 2.5-inch SATA storage, serial ATA 3.0 standard port	2-slot, removable, 2.5-inch SATA storage, serial ATA 2.0 standard port
CFast card slot	None	1 slot
LAN	LAN-A: Intel I219-LM Controller, LAN-B, C: Intel I210-AT Controller 1000BASE-T/100BASE-TX/10BASE-T, 3 port (RJ-45 connector)	LAN-A: Intel 82579LM Controller, LAN-B: Intel 82583V Controller 1000BASE-T/100BASE-TX/10BASE-T, 2 port (RJ-45 connector)
USB	USB 3.0-compliant 6 port	USB 2.0-compliant 6 port
PS/2	None	2 ports (Keyboard / Mouse)
Power supply		
External device power supply capacity	- USB I/F +5V: 5.4A (900mA x 6) *1	- CFast card slot +3.3V: 500mA - USB I/F +5V: 3A (500mA x 6)

*1 For model with expansion slot, supply power capacity is different. Please see "Specifications".

Specifications

Function specification

Model	The model without an expansion slot	The model with expansion slots (two slots)	The model with expansion slots (four slots)	
CPU (Selection)	Intel® Core™ i7 Processor 6700TE 2.4GHz Intel® Core™ i5 Processor 6500TE 2.3GHz Intel® Celeron® Processor G3900TE 2.3GHz			
Chip set	Intel® Q170			
BIOS	BIOS (mfd. by AMI)			
Memory (Selection)	Max16GB, 260pin SO-DIMM Socket x 2, PC4-17000(DDR4 2133)DDR4 SDRAM			
Graphic	Controller Intel® HD Graphics 530 (Core™ i7, Core™ i5 model) Intel® HD Graphics 510 (Celeron® model)			
System resolution	HDMI	800 x 600, 1024 x 768, 1152 x 864, 1280 x 600, 1280 x 720, 1280 x 768, 1280 x 800, 1280 x 960, 1280 x 1024, 1360 x 768, 1366 x 768, 1400 x 1050, 1440 x 900, 1600 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080, 1920 x 1440, 2048 x 1152, 2048 x 1536, 2560 x 1600, 2560 x 1920, 2560 x 2048, 3840 x 2160 (16,770,000 colors)		
		Display Port	800 x 600, 1024 x 768, 1152 x 864, 1280 x 600, 1280 x 720, 1280 x 768, 1280 x 800, 1280 x 960, 1280 x 1024, 1360 x 768, 1366 x 768, 1400 x 1050, 1440 x 900, 1600 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080, 1920 x 1440, 2048 x 1152, 2048 x 1536, 2560 x 1600, 2560 x 1920, 2560 x 2048, 3840 x 2160 (16,770,000 colors)	
			DVI-I	800 x 600, 1024 x 768, 1152 x 864, 1280 x 600, 1280 x 720, 1280 x 768, 1280 x 800, 1280 x 960, 1280 x 1024, 1360 x 768, 1366 x 768, 1400 x 1050, 1440 x 900, 1600 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080 (16,770,000 colors)
Storage (Selection)	SATA III 2.5" HDD 500GB (2 units maximum) SATA III 2.5" SSD 256GB (2 units maximum)			
	Audio	HD Audio compliant, LINE OUT x 1, LINE IN x 1, MIC IN x 1		
LAN	LAN-A: Intel I219-LM Controller, LAN-B, C: Intel I210-AT Controller 1000BASE-T/100BASE-TX/10BASE-T, Wake On LAN support			
USB	USB 3.0-compliant			
Serial	RS-232C (general-purpose): 4ch, Baud rate: 50 - 115,200bps			
Expansion board slot (Selection)	None	PCI slot x 2 Usable board dimension: Max 176mm(L) x 110mm(H)	PCI-Express(x8) slot x 1 PCI slot x 3 Usable board dimension: Max 176mm(L) x 110mm(H)	
Hardware monitoring	Monitoring CPU temperature, board temperature, power voltage			
Watch dog timer	Software programmable, 255 level (1sec - 255 sec), Causes a reset upon time-out.			
Security (TPM)	TCG TPM2.0			
RTC/CMOS	The real-time clock is accurate within ±3 minutes (at 25°C) per month, Lithium backup battery life : 7 years or more			
Power Management	Power management setup via BIOS, Power On by Ring / Wake On LAN			
Interface	External display DVI-I x 1 *1, HDMI x 1, DisplayPort x 1 Supports three displays			
Audio	Line input/output: ø3.5 Stereo mini jack (LINE OUT, LINE IN, MIC IN)			
Serial ATA	2-slot, removable, 2.5-inch SATA storage, serial ATA3.0 standard port			
LAN	3 port (RJ-45 connector)			
USB	6 port (A-TYPE connector)			
RS-232C	4 port (9pin D-SUB connector (male))			
GPIO	6 points (input/output is chosen by BIOS setup)			
Power supply	Rated input voltage 100 - 240VAC Range of input voltage 90 - 264VAC Power consumption (Max) 100 - 240VAC 2.1 - 0.9A			
External device power supply capacity	- USB I/F +5V: 5.4A	- USB I/F +5V: 5.4A - PCI slot +3.3V: 4A, +5V: 4A, +12V: 1A	- USB I/F +5V: 5.4A - PCI slot +3.3V: 3A, +5V: 3A, +12V: 0.5A - PCI-Express(x8) slot +3.3V: 3A, +12V: 2.1A	
	Physical dimensions (mm) *2	262(W) x 262(D) x 88(H)	262(W) x 262(D) x 143(H)	
	Weight *3	About 4.0kg	About 4.8kg	About 5.6kg

*1 When connecting a display using only analog RGB on models with Windows 10 pre-installed (with "CSM Support" set to "Disabled"), a beep may be heard five times at startup, and the BIOS screen may not be displayed for some displays.

The OS screen will be displayed and the product can be used as normal.

To configure BIOS settings, use a different interface (DVI, HDMI, DisplayPort, etc.), or connect a different display.

*2 The attachment fittings and protruding parts are not included.

*3 The weight (which does not include accessories) may vary depending on the product configuration.

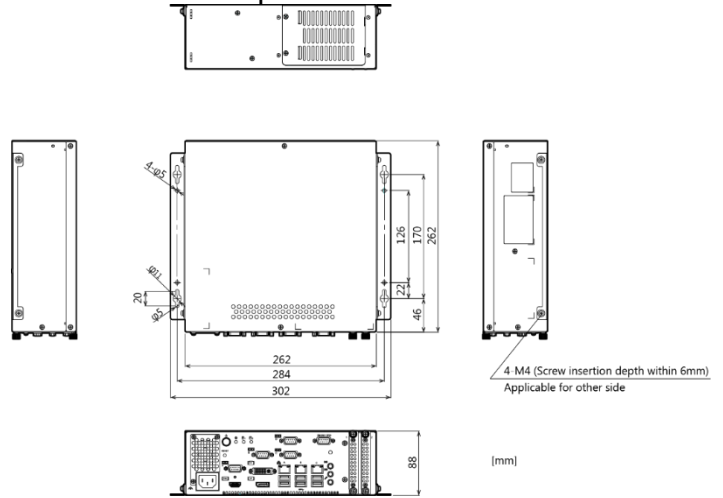
Installation Environment Requirements

Model	EPC-3010	
Operating temperature	0 - 40°C	
Storage temperature	-20 - 60°C	
Humidity	20 - 85%RH (No condensation)	
Floating dust particles	Not to be excessive	
Corrosive gases	None	
Line-noise resistance	Line noise	AC line / ±2kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3) 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 Level 2) Atmospheric discharge / ±8kV (IEC61000-4-2 Level 3, EN61000-4-2 Level 3)
Vibration resistance	Sweep resistance	- HDD installed (When the HDD is on): 10 - 50Hz / 0.5G 25 min. each in x, y, and z directions (JIS C 60068-2-6-compliant, IEC60068-2-6-compliant) - HDD installed (When the HDD is off) and SSD installed: 10 - 57Hz / semi-amplitude 0.075mm, 57 - 150Hz / 1.0G 40 min. each in x, y, and z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)
		Impact resistance

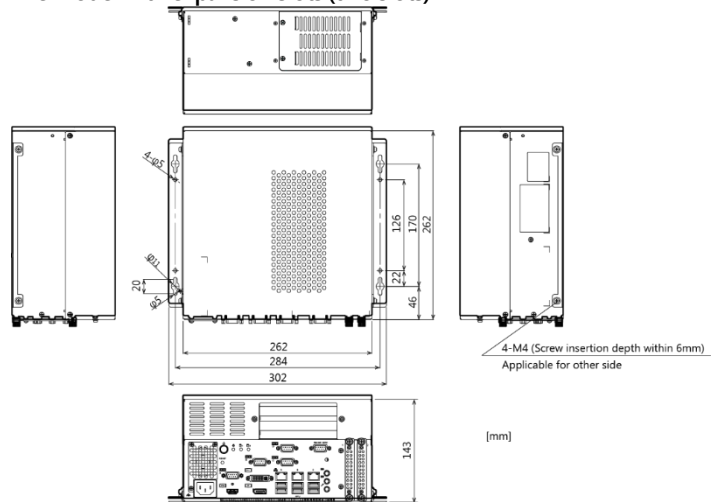
Standard	VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive)
Grounding	Class D grounding, SG-FG / continuity

Physical Dimensions

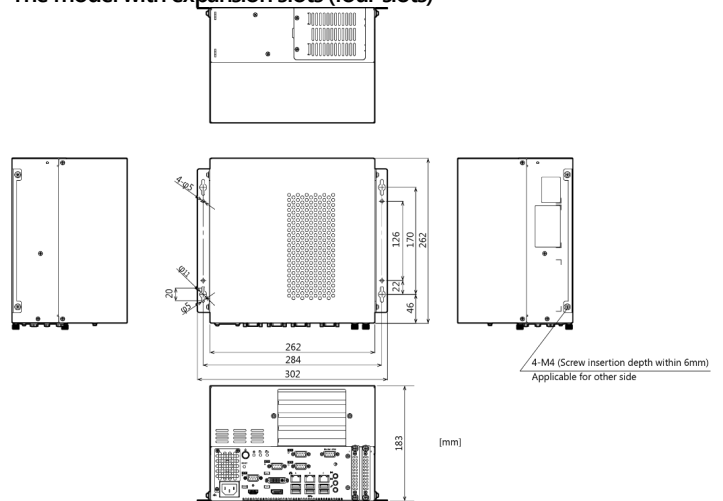
The model without an expansion slot



The model with expansion slots (two slots)

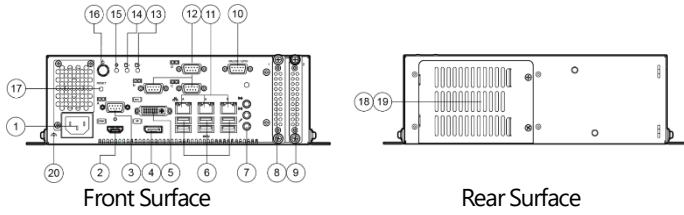


The model with expansion slots (four slots)



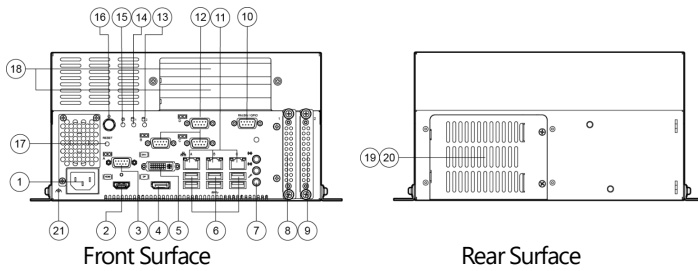
Nomenclature of Product Components

The model without an expansion slot



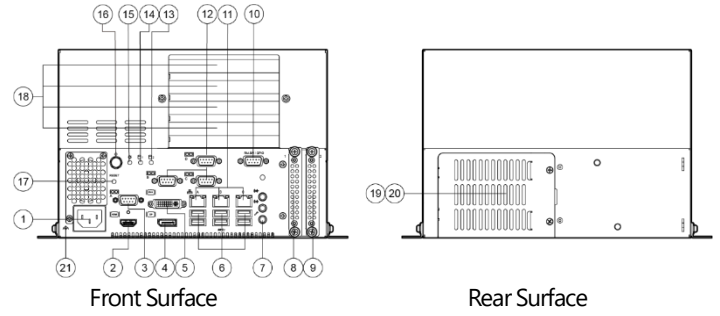
No.	Name	No.	Name
1	AC inlet	11	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
2	HDMI connector	12	Serial port B, C, D (9-pin D-sub male)
3	Serial port A (9-pin D-sub male)	13	---
4	DisplayPort connector	14	Disk access indicator LED
5	DVI-I connector	15	Power on indicator LED
6	USB3.0 connector	16	Power switch
7	Top: Line input (ø3.5 phone jack) Middle: Line output (ø3.5 phone jack) Bottom: Microphone input (ø3.5 phone jack)	17	Reset switch
8	2.5-inch hard disk slot 1	18	Cooling fan
9	2.5-inch hard disk slot 2	19	Cooling fan filter
10	GPIO port (9-pin D-sub female)	20	FG

The model with expansion slots (two slots)



No.	Name	No.	Name
1	AC inlet	12	Serial port B, C, D (9-pin D-sub male)
2	HDMI connector	13	---
3	Serial port A (9-pin D-sub male)	14	Disk access indicator LED
4	DisplayPort connector	15	Power on indicator LED
5	DVI-I connector	16	Power switch
6	USB3.0 connector	17	Reset switch
7	Top: Line input (ø3.5 phone jack) Middle: Line output (ø3.5 phone jack) Bottom: Microphone input (ø3.5 phone jack)	18	Expansion slots
8	2.5-inch hard disk slot 1	19	Cooling fan
9	2.5-inch hard disk slot 2	20	Cooling fan filter
10	GPIO port (9-pin D-sub female)	21	FG
11	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector		

The model with expansion slots (four slots)



No.	Name	No.	Name
1	AC inlet	12	Serial port B, C, D (9-pin D-sub male)
2	HDMI connector	13	---
3	Serial port A (9-pin D-sub male)	14	Disk access indicator LED
4	DisplayPort connector	15	Power on indicator LED
5	DVI-I connector	16	Power switch
6	USB3.0 connector	17	Reset switch
7	Top: Line input (ø3.5 phone jack) Middle: Line output (ø3.5 phone jack) Bottom: Microphone input (ø3.5 phone jack)	18	Expansion slots
8	2.5-inch hard disk slot 1	19	Cooling fan
9	2.5-inch hard disk slot 2	20	Cooling fan filter
10	GPIO port (9-pin D-sub female)	21	FG
11	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector		

Commodity Model

EPC-3010 Model Rule

Model Name **EPC-3010 (AC power specification)**

Type Name **S 3 1 1 0 0 0 0 1 0**

No. **1 2 3 4 5 6 7 8 9 10**

No.	Item	Type Name	Description
1	Power supply	S	EPC-3010
2	CPU	1	Celeron G3900TE (35W)
		2	Core i5 6500TE (35W)
		3	Core i7 6700TE (35W)
3	Memory	1	DDR4 SO-DIMM 8GB(8GB×1)
		2	DDR4 SO-DIMM 16GB(8GB×2)
4	Storage (SATA 1)	0	None
		1	500GB 2.5inch HDD (SATA)
		2	256GB 2.5inch SSD (SATA)
5	Storage (SATA 2)	0	なし
		1	500GB 2.5inch HDD (SATA)
		2	256GB 2.5inch SSD (SATA)
6	Storage (SATA 3)	0	None
7	RAID	0	None
		R	Software RAID (Mirroring)
8	OS	0	None
		1	Windows 10 IoT Enterprise LTSC 2016 64bit (Japanese / English / Chinese / Korean)
		4	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
		2	Windows 7 Professional SP1 32bit (Japanese / English)
		3	Windows 7 Professional SP1 64bit (Japanese / English)
		D	Windows 10 IoT Enterprise 2019 LTSC 64bit with Microsoft Edge (Chromium) (Japanese/English/Chinese/Korean)
9	Expansion	0	The model without an expansion slot
		2	The model with expansion slots (two slots)- PCI bus: 2 slots
		4	The model with expansion slots (four slots) PCI-Express x 8-bus: 1 slot, PCI bus: 3 slots
10	Reserve	0	Reserve