

FA-PC
VPC Series
VPC-3100 Series



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

Features

Compatible with Intel® Core™ processor series Coffee Lake

This product is equipped with the 8th-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.

CPU built-in high-performance graphics

Full HD video can be smoothly played with the Intel® HD Graphics 630/610.

It also supports full HD output of the three-screen with the DVI-I, DisplayPort and HDMI.

Supports mirroring (RAID1)

Mirroring (hardware or software option) can be configured to suit the application and ensure the system to be redundant.

Adopt removable storage

The product adopts front accessible 3.5-inch SATA storage, and also supports RAID function such as mirroring.

Rich variety of interfaces to expand your peripherals freely

The product has a variety of extended interface such as DVI-I, HDMI, DisplayPort, 1000BASE-T x 3, USB3.2 Gen1(USB3.0) x 4, USB2.0 x 4, serial ports x 5(RS-232C/RS-422A/RS-485 x 1, RS-232C x 4), and Audio.

The identical dimensions enable easy replacement with the VPC-3000 series

In order to replace the system with ease, this product has the same physical dimensions as the VPC-3000 series.

This product is a BTO industrial computer that is equipped with an 8th generation Intel® Core™ processor series.

The Intel® Q370 chipset with DDR4 memory (8GB - 32GB) provides advanced computing and graphical performance.

The product features a variety of interfaces such as one each port of DVI-I, HDMI, DisplayPort, four USB3.2 Gen1(USB3.0) ports (rear: 4), four USB2.0 ports (front:2, rear:2), five serial ports (RS-232C/422A/485×1, RS-232C×4), and three 1000BASE-T ports, which can be used in a wide range of embedded applications such as general-purpose PC OS-based controllers and information terminals.

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Specification

Function specification

Item	Description	
CPU [Selection]	Intel® Celeron® G4900 Processor 3.1GHz Intel® Core™ i5 8500 Processor 3.0GHz Intel® Core™ i7 8700 Processor 3.2GHz	
Chip set	Intel® Q370	
BIOS	BIOS (mfd. by AMI)	
Memory [Selection]	Max 32GB, 288pin U-DIMM Socket x 4, DDR4-2666 SDRAM 8GB: 8GB DDR4 U-DIMM 2666MHz x 1 16GB: 8GB DDR4 U-DIMM 2666MHz x 2 32GB: 8GB DDR4 U-DIMM 2666MHz x 4	
Graphic		
Controller	Intel® HD Graphics 610 (Celeron® type) Intel® HD Graphics 630 (Core™ i5, Core™ i7 type)	
System resolution	HDMI	800 x 600, 1024 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, 1,600 x 1,200, 1,680 x 1,050, 1,920 x 1,080, 1,920 x 1,440, 2,048 x 1,152, 2,048 x 1,536, 2,560 x 1,600, 2,560 x 1,920, 2,560 x 2,048, 3,840 x 2,160 (16,770,000 colors)
	Display Port	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, 1,600 x 1,200, 1,680 x 1,050, 1,920 x 1,080, 1,920 x 1,440, 2,048 x 1,152, 2,048 x 1,536, 2,560 x 1,600, 2,560 x 1,920, 2,560 x 2,048, 3,840 x 2,160 (16,770,000 colors)
	DVI-I	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, 1,600 x 1200, 1,680 x 1,050, 1,920 x 1,080 (16,770,000 colors)
Storage [Selection]	- Removable drive, SATA III 3.5-inch x 2 SATA III 3.5-inch HDD 2TB (Max. 2pcs) SATA III 3.5-inch HDD 4TB (Max. 2pcs) SATA III 2.5-inch SSD 256GB (Max. 2pcs) Hardware RAID (Mirroring) / Software RAID (Mirroring) - Shadow bay, SATA III 3.5-inch x 1 *1 SATA III 3.5-inch HDD 2TB (Max. 1pc) SATA III 3.5-inch HDD 4TB (Max. 1pc) SATA III 2.5-inch SSD 256GB (Max. 1pc)	
Optical drive [Selection] *1	5-inch DVD Super Multi drive	
Interface	External display	DVI-I x 1, HDMI x 1, DisplayPort x 1, Supports three displays (HDMI and DisplayPort: 4K output, DVI: 1080p)
	USB	A-TYPE connector Front : USB2.0 x 2 ports, Inside : USB2.0 x 2, Rear : USB3.2 Gen1(USB3.0) x 4 ports, USB2.0 x 2 ports
	Audio	HD Audio compliant, 3.5p stereo mini jack, Realtek ALC892 controller, LINE OUT x 1, LINE IN x 1, MIC IN x 1
	Serial	9pin D-SUB connector(male) x 5 (RS-232C/422A/485 x 1, RS-232C x 4) Baud rate : 50 - 115,200bps
	LAN	3ports (RJ-45 connector) LAN-1, 2: Intel I211-AT controller, LAN-3: Intel I219-LM controller 1000BASE-T/100BASE-TX/10BASE-T, Wake On LAN
	Digital I/O	Front: LED outputs x 2, Rear: outputs x 2, inputs x 4
Expansion slot [Selection]	PCI-Express(x16) slot x 1 PCI-Express(x4) slot x 2 PCI slot x 1 Usable card dimension: Max. 176mm(L) x 110mm(H)	

Item	Description
Hardware monitoring	Monitoring CPU temperature, card 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
Supportable OS *1 [Selection]	None Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
Power supply	400W FlexATX power supply (50/60Hz Input auto switching)
Rated input voltage	100 - 240VAC
Range of input voltage	90 - 264VAC
Power consumption (Max)	100 - 240VAC, 3.8 - 1.6A
External device power supply capacity	- USB I/F +5V: 5.6A - PCI-Express(x16) slot: +3.3V: 3A, +12V: 5.5A - PCI slot: +3.3V: 2A, +5V: 2A, +12V: 0.5A - PCI-Express(x4) slot: +3.3V: 3A, +12V: 2.1A
Physical dimensions (mm)	166(W) x 470(D) x 370(H) (No protrusions)
Weight *2	About 12.0kg (Excluding attachment fittings)

*1 The shadow bay and optical drive are exclusive.

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

Ambient specification

Item	Description
Operating ambient temperature	5 - 40°C
Non-operating ambient temperature	-20 - +60°C
Operating ambient humidity	20 - 80%RH (No condensation)
Non-operating ambient humidity	20 - 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 (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 10 - 57Hz / semi-amplitude : 0.035 mm, 57 - 150Hz / 0.5G 40 min. each in x, y, and z directions (JIS C60068-2-6 compliant, IEC60068-2-6 compliant)
	Impact resistance 10G, half-sine shock for 11 ms in x, y, and z directions (JIS C60068-2-27-compliant, IEC60068-2-27-compliant)
Grounding	Class D grounding, SG-FG / continuity
Standard	VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive)

Option Mirror card specification

Item	Description
Model Name	SVRC-C600SA
Number of connected drives	2
RAID level	1
Storage capacity	Max. 4TB
Cache memory size	1MB
Host interface	Serial ATA 3.0
Transfer mode	6.0Gb/s, 3.0Gb/s (Auto or fixed into 3.0Gb/s)
Max transfer speed	6.0Gb/s (Theoretical value)
Drive interface	Serial ATA 3.0
Transfer mode	6.0Gb/s, 3.0Gb/s (Auto or fixed into 3.0Gb/s)
Max transfer speed	6.0Gb/s (Theoretical value)
Power voltage range	4.75VDC - 5VDC
Current consumption	Max. 1.5A
Physical dimensions (mm)	96.0(W)×98.2(D)
Weight	About 51g

Packing List

- Product [VPC-3100 Series] ...1
- Brackets ...2
- AC Cable (125VAC, 3P type) ...1
- DVI-analog RGB conversion adapter ...1
- I/O Terminal Connector ...1
- Cable Tie ... 3 types (3 ties respectively)
- Rubber feet ...4
- Countersunk Screw (#6-32 x 4) ...1 set
- Countersunk Screw (M3 x 4) ...10
- Truss-Head Screw (M3 x 5) ...8
- Truss-Head Screw (M4 x 6) ...14
- Keyboard ...1 *1
- Mouse ...1 *1
- Nameplate ...1
- Product Guide ...1
- Warranty Certificate ...1
- Serial Number Label ...1
- Recovery Disk/Driver Disk ...1 *2

*1 The number of covers differs depending on the model.

*2 The recovery media is included for the product with an OS installing type. The driver media is included for the product without an OS.

Supported OS

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

List of Options

Hard disk

- | | |
|------------|--------------------------------------|
| HDD-2TS-3 | 2.5 inch SATA HDD 2TB |
| HDD-2TS-3R | 2.5 inch SATA HDD 2TB (RAID support) |
| HDD-4TS-3 | 3.5 inch SATA HDD 4TB |
| HDD-4TS-3R | 3.5 inch SATA HDD 4TB (RAID support) |

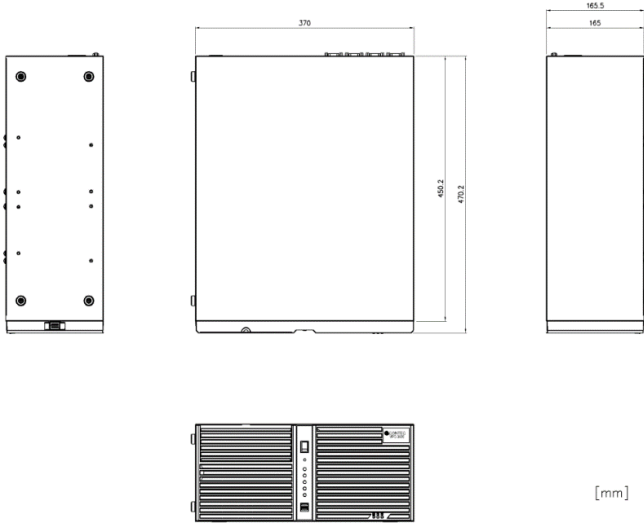
SSD

- | | |
|---------------|--|
| SSD-256GS-2T | 2.5 inch SATA SSD 256G 3D TLC |
| SSD-256GS-2TR | 2.5 inch SATA SSD 256G 3D TLC (RAID support) |

* Visit the CONTEC website for the latest optional products.

Physical Dimensions

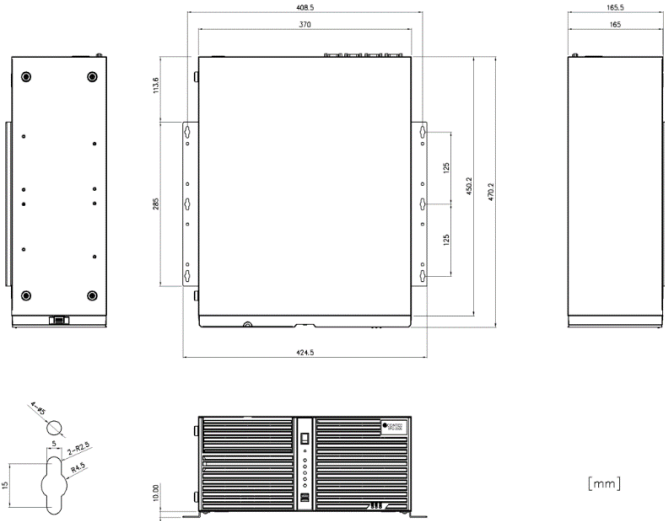
Horizontal Installation



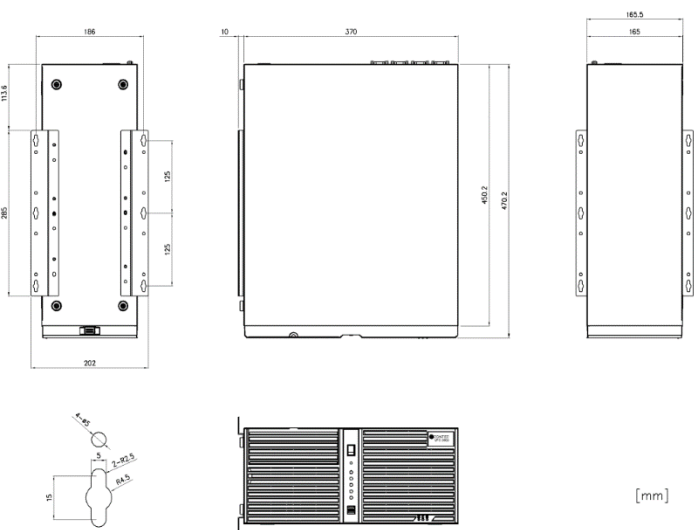
Differences between the VPC-3100 and the VPC-3000

	VPC-3100	VPC-3000
CPU	Intel® Celeron® G4900 3.1GHz / Core™ i5 8500 3.0GHz / Core™ i7 8700 3.2GHz	Intel® Celeron® G1820 2.7GHz / Core™ i5 4570S 2.9GHz / Core™ i7 4770S 3.10GHz
Memory	32GB max. 288pin DDR4 SDRAM U-DIMM socket x 4	16GB max. 240pin DDR3 SDRAM U-DIMM socket x 4
Parallel port	None	1 port 25pinD-SUB connector (Female)
Extended slot	PCI Express(x16) slot x 1, PCI Express(x4) slot x 2, PCI slot x 1	PCI Express(x16) slot x 1, PCI Express(x4) slot x 1, PCI slot x 2
Security (TPM)	TCG TPM2.0	Not supported
OS	Windows 10 IoT Enterprise 2019 LTSC (Japanese/English/Korean)	Windows 7 Professional for Embedded Systems 32bit Japanese Windows 7 Professional for Embedded Systems 64bit Japanese Windows 7 Ultimate for Embedded Systems 32bit (Japanese/English/Chinese) Windows 7 Ultimate for Embedded Systems 64bit (Japanese/English/Chinese/Korean) Windows Embedded 8.1 Industry Pro 64bit Japanese Windows 10 IoT Enterprise LTSC 2016 64bit (Japanese/English/Chinese/Korean)

With the Brackets for Horizontal Orientation (Horizontal Installation)



With the Brackets for Horizontal Orientation (Vertical Installation)



BTO Custom Model (BTO Menu)

CPU	Celeron® G4900	Core™ i5 8500	Core™ i7 8700	
Memory	8GB	16GB	32GB	
Storage1 *1	None	2TB HDD	4TB HDD	256GB SSD
Storage2 *2	None	2TB HDD	4TB HDD	256GB SSD
Optics System Drive	None	DVD Super Multi Drive	3.5inch HDD 2TB	3.5inch HDD 4TB
	2.5inch SSD 256GB 3D TLC			
RAID	None	Hardware RAID (RAID 1)	Software RAID (RAID 1)	
OS	None	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)		
Option [Keyboard & Mouse]	None	Japanese 109 keyboard	Japanese 109 keyboard + Optical mouse	Optical mouse
	English 104 keyboard	English 104 Keyboard + Optical mouse		
Option [OS installation destination] *2	None	Storage 1	Shadow bay	
Option [Partition] *2	Without a partition	With a partition		
Option [maintenance service] *3	None	Two-year maintenance service package	Three-year maintenance service package	

*1 With 2TB HDD / 4TB HDD / 256GB SSD x2, software RAID and hardware RAID can be supported.

*2 Only available with the OS installed model.

*3 This service is only available in Japan.

Standard Model

Model Name	CPU	Memory	Storage 1	Storage 2	DVD	RAID	OS
VPC-3100-BS2810A010001000 *1*2	Celeron® G4900	8GB	2TB HDD	none	Optical drive	none	Win10IoT2019
VPC-3100-BS3810A010001000 *1*2	Core™ i5 8500	8GB	2TB HDD	none	Optical drive	none	Win10IoT2019
VPC-3100-BS3811AH10001000 *1*2	Core™ i5 8500	8GB	2TB HDD	2TB HDD	Optical drive	Hardware RAID (Mirroring)	Win10IoT2019

*1 Keyboard/mouse selection is "None".

*2 Partition Selecting Service, Easy Assembly Service, and On-site Maintenance Services are "None".

Win10IoT2019: Windows 10 IoT Enterprise 2019

- * 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 July 2021.