FA-PC
VPC Series
VPC-5000-G Series

This product is a desktop/rack-mountable type FA computer with high reliability, long life components, availability and maintainability base on 24-hour operation. The Intel® C246 chipset for server and workstation applications are adopted. Intel® Xeon® E-2200 Processors or 9th generation Intel® Core® Processors with up to 64GB of ECC memory can be installed. The product offers up to four hot-swappable hardware RAID configurations.

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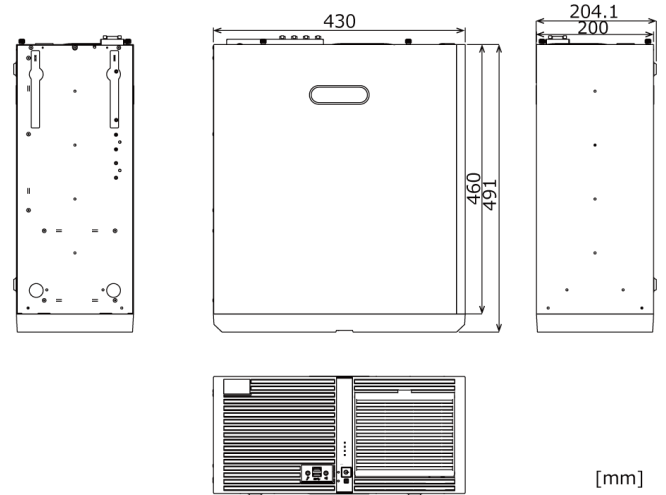
* Specifications, color and design of the products are subject to change without notice.

Features

High performance FA computer with Xeon processor compatible
Compatible with Intel® Xeon® E-2200 Processors or 9th generation Intel® Core® Processors. Up to 64GB of ECC memory can be installed. Applicable for transportation / social infrastructure / medical equipment / security / amusement and other fields requiring advanced multiple processing.

Highly reliable and long life components based on 24-hour operation
The product is designed for high reliability and longevity with the know-how of the Box computer®, which is synonymous with built-in PCs, in various places. Hot-swappable hardware RAID configurations enable a user to replace storage even when the system is running. It can be used with confidence in systems that require high availability.

Support Windows 10 IoT Enterprise LTSC and Windows Server IoT
The LTSC (Long Term Servicing Channel) version of Windows is installed to discourage unnecessary restarts or unwanted feature updates for operational applications. The product has a lockdown function that is useful for the developing secure dedicated terminals.   A user can select a language from Japanese, English, Chinese, or Korean in Windows 10 IoT Enterprise 2019 LTSC, and can decide to use Windows Server IoT 2019, which is suitable for edge servers that require server-class multiple processing and network performance.

Long-term product availability and maintenance
In addition to longer-term product availability and maintenance services, a long-term on-site maintenance service is provided (for a fee). It reduces the life cycle costs for operation checks or device alterations/improvements each time PC model changes.

Specifications

Function specification

Item		Description
CPU [Selection]		Intel® Xeon® E-2278GE / E-2226GE / Core™ i3 9100E / Celeron® G4900
Chipset		Intel® C246
BIOS		AMI BIOS
Memory [Selection]		64GB max. (DDR4-2666) ECC SDRAM 8GB : 8GB x 1, 16GB : 8GB x 2, 32GB : 16GB x 2, 64GB : 32GB x 2
Storage [Selection]		Removable drive, SATA III 3.5inch bay x 4 (2.5-inch storage can be installed) 3.5inch HDD 2TB, 2.5inch SSD 256GB, 512GB
Optical drive		DVD super multi drive
Interface	Display	Analog RGB x 1, HDMI x 1, DisplayPort x 1, Outputs with three displays (HDMI, DisplayPort : 4K output, Analog RGB : 1080p)
	USB	Type-A connector Front : USB3.1 Gen 1(USB3.0) x 2 Rear : USB3.1 Gen 1(USB3.0) x 4, USB2.0 x 2
	Audio	Audio compliant Front : Line output x 1, Mic input x 1, Rear : Line output x 1, Line input x 1, Mic input x 1
	Serial	9pin D-SUB connector [male] RS-232C / 422A / 485 x 1, RS-232C x 4
	LAN	2ports (RJ-45 connector) 1000BASE-T / 100BASE-TX / 10BASE-T, Wake On LAN
	Digital I/O	Rear : 2 x Outputs, 4 x Inputs
RAS function		WDT : 1sec - 255sec (Resetting operation by time up) Remote reset/Remote power on External input signal Monitoring function (Fan rotation, CPU temperature, Voltage data reading)
Extended slot		PCI Express(x16) slot x 1, PCI Express(x4) slot x 3, PCI slot x 3
Security (TPM)		TCG TPM2.0
OS *1		None Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
Supply voltage		100 - 240VAC
Physical dimensions (mm)		430(W) x 491(D) x 204.2(H) (No protrusions)
Weight		About 14Kg (with HDD x 1 and optical drive x 1. The weight may vary depending on configuration.)

Ambient specification

Item		Description
Operating temperature		5 - 40℃
Non-operating ambient temperature		-20 - 60℃
Operating 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	Static electricity resistance	Contact discharge / ±4kV (EN61000-4-2 Level 2, IEC1000-4-2 Level 2), Atmospheric discharge / ±8kV (EN61000-4-2 Level 3, IEC1000-4-2 Level 3)
	Line noise	AC line / 2kV, Signal line /1kV (EN61000-4-4 Level 3, IEC1000-4-4 Level 3)
Vibration resistance	Sweep resistance	When the HDD is on : 10 - 50Hz/ 0.5G 25 min. each in x, y, and z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant) When the SSD is on : 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		10G, half-sine shock for 11ms in X, Y, and Z directions (JIS C0041 compliant, IEC68-2-27 compliant)
Grounding		Class D grounding, SG-FG / continuity
Standard		VCCI Class A, FCC Class A

Option Mirror card specification

Item	Description
Number of connected drives	2
RAID level	1
Storage capacity	Max. 2TB
Cache memory size	1MB
Host interface	S-ATA (Max. data transfer rate : 6Gbps)
Drive interface	S-ATA (Max. data transfer rate : 6Gbps)
Range of power-supply voltage	4.75VDC - 5.25VDC
Current consumption	1.1A - 1.5A
Physical dimensions (mm)	96(L) × 98.2(W)
Weight	51g (Max.)

Physical Dimensions

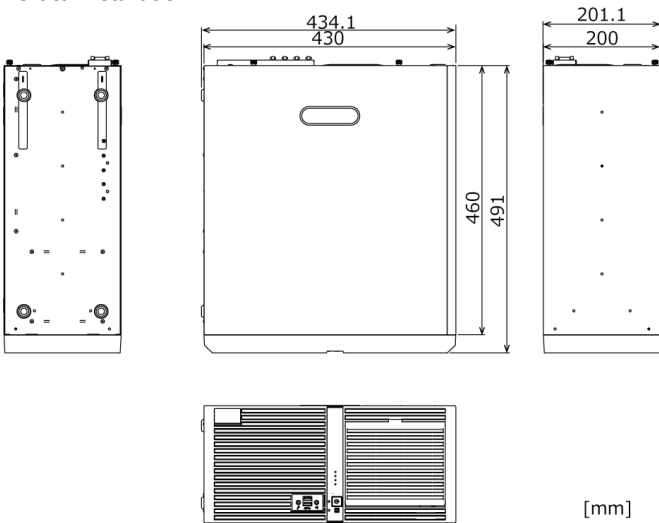### Vertical installation

[mm]

Horizontal installation

[mm]

Packing List

- Product [VPC-5000 Series] ...1
- I/O Terminal Connector...2
- Rubber Foot...4
- Countersunk screw (inch)...8 *1
- Countersunk screw (millimeter)...6 *1
- Name Plate...1
- Product Guide ... 1
- Warranty Certificate ...1
- IPC Precaution List...1
- Serial Number Label ...1
- Driver Media...1

*1   Configuration differs depending on the selection.

Supported OS

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

- Windows Server IoT 2019 Standard (Expected to be supportable from January 2021)

BTO Custom Model (BTO Menu)

CPU	Xeon® E-2278GE	Xeon® E-2226GE	Core™ i3 9100E	Celeron® G4900

Memory	8GB	16GB	32GB	64GB

Storage1	None	2TB HDD	256GB SSD	512GB SSD

Storage2	None	2TB HDD	256GB SSD	512GB SSD

Storage3	None	2TB HDD	256GB SSD	512GB SSD

Storage4	None	2TB HDD	256GB SSD	512GB SSD

Power	500W

Optics System Drive	None	DVD Super Multi Drive

RAID	None	Hardware RAID (RAID 1)	Software RAID (RAID 1)

OS	None	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)

* 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 September 2020.