

BOX-PC
 Fanless Core i7-8665UE, Core i5-8365UE,
 Core i3-8145UE, Celeron 4305UE processor
BX-T3000 Series



Features

- **Eighth-generation Core i7, Core i5, Core i3, Celeron processor adopted**
 This product adopts the CPU that saves power consumption and also provides high computing and graphic performances. Embedded-type CPU makes the stable supply possible.
- **Ultra-compact design about as large as A5 size contributes to space-saving**
 With a space-saving design of a thickness of 30.3 mm, a width of 182 mm, and a depth of 155 mm that is about A5 size.
- **Operation capable in a wide temperature range between -20 and +60°C**
 Achieves stable operation in a wide temperature range of -20 to +60°C *1
- **"Power failure protection system" features power-off without OS shutdown**
 Equipped with the "Power failure protection system" function that protects data and prohibits writing to storage in the event of power failure. Along with the lockdown (disk writing suppression) function of Windows IoT Enterprise, power can be safely turned off without a shutdown process. Moreover, file system damage or data damage caused by sudden power failure can be avoided.
- **High-security design contributes to a highly reliable system**
 The latest security functions such as TPM2.0 and Secure Boot, as well as CONTEC's original functions including the USB Boot Protect are provided. This product is designed with the high security required for industrial applications in mind.
- **CONTEC-customized BIOS provides useful utility**
 Useful utility of BIOS*2 customized by CONTEC is provided. The "CONTEC Fast Boot" achieves Windows startup in 10 seconds.*3
- The "Disk Copy" function provides secure disk backup at the BIOS level, and also supports backup in file format or compressed file format. We also offer the CONTEC tools "BIOS update tool" for updating BIOS.*4
- **Fan-less design reduces maintenance work**
 The product is fan-less to ensure a totally spindle-less design that simplifies maintenance, relieving the concern about dust or foreign matter to get into the product. Moreover, along with minimized use of degrading parts greatly reduce maintenance work.
- **Rich interfaces for easy connection to various peripherals**
 In addition to DisplayPort x1, USB3.2 Gen1 (USB3.0) x 4, USB2.0 x 2, and LAN x 2, Analog RGB port and RS-232C x 2 (one port can be used as RS-422A or 485), DIO x1 are equipped. The CFast card slot, which is easily replaceable, is used for storage and can be used as a writing area for logs and collected data. The wireless model (BX-T210R) can be connected to wireless LAN and Bluetooth compatible devices.

*1 In an airflow environment of 0.7m/s
 *2 For details, see each setting in the [BIOS Setup] section.
 *3 It is the actual measured value when Windows 10 and HORM function are enabled at the factory. Time may vary depending on configuration. Note that ME, TPM, Network Stack, and SMART Self Test are not supported when the CONTEC Fast Boot is enabled.
 *4 Contact your retailer for more information.

This product is a fan-less computer for embedded applications with an 8th generation Intel CPU processor. It provides an ultra-compact design with a capability of operating in a wide temperature range (between -20 and +60°C in an airflow environment of 0.7m/s). CPUs can be selected from Core i7-8665UE, Core i5-8365UE, Core i3-8145UE and Celeron 4305UE processors. Addition to DisplayPort, a wide variety of interfaces including USB3.2 Gen2 x 4, LANx2 are provided. The wireless models are equipped with wireless LAN and Bluetooth for easy connection to digital devices, making them ideal as IoT gateway devices for connecting to peripherals. 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 April, 2025

Specification

Function Specifications

Item		Description
CPU		BX-T3000x-J60xxxxxx : Intel® Core™ i7-8665UE Processor (1.7GHz) BX-T3000x-J50xxxxxx : Intel® Core™ i5-8365UE Processor (1.6GHz) BX-T3000x-J40xxxxxx : Intel® Core™ i3-8145UE Processor (2.2GHz) BX-T3000x-J20xxxxxx : Intel® Celeron™ 4305UE Processor (2.0GHz)
BIOS		BIOS (mfd. by AMI)
Memory		BX-T3000x-Jx04xxxxxx : 8GB(260pin SO-DIMM), PC4-19200 (DDR4-2400) BX-T3000x-Jx05xxxxxx : 16GB(260pin SO-DIMM), PC4-19200 (DDR4-2400)
Graphics Controller		Intel® UHD Graphics 620 (CPU integrated, Core i3 or higher) Intel® UHD Graphics 610 (CPU integrated, Celeron only)
System Resolution	DisplayPort	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, 1,792 x 1,344, 1,856 x 1,392, 1,920 x 1,080, 1,920 x 1,200, 1,920 x 1,440, 1,920 x 2,160, 2,048 x 1,152, 2,048 x 1,536, 2,560 x 1,080, 2,560 x 1,440, 2,560 x 1,600, 2,560 x 1,920, 2,560 x 2,048, 3,840 x 2,160 (1,6770,000 colors)
	Analog RGB	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 1,200 (1,6770,000 colors)
Audio		HD Audio compliant, LINE OUT x 1, MIC IN x 1
M.2 Card Slot		1 slot, M.2 2242 Key M, SATAIII BX-T3000x-Jx0xL07xxx : M.2 SSD built-in (TLC, 128GB, 1 partition) *1 BX-T3000x-Jx0xL08xxx : M.2 SSD built-in (TLC, 256GB, 1 partition) *1 BX-T3000x-Jx0xL09xxx : M.2 SSD built-in (TLC, 512GB, 1 partition) *1 1 slot, M.2 2230, Key E, PCIe(x1) 2 port, USB2.0 1 port BX-T3000R-Jx0xxxxxx : M.2 Wireless LAN card mounted
CFast Card Slot		1 slot, CFast CARD Type I, bootable
LAN		Intel® I210 controller x 2 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector x 2 (supports Wake On LAN)
USB		USB3.2 Gen2 (USB3.2) compliant x 4 ports USB 2.0 compliant x 2 ports
Serial		RS-232C/422/485 1port, RS-232C 1ports Baud rate: 50 - 115,200bps
Wireless LAN *2		IEEE 802.11ac/a/b/g/n
Bluetooth *2		4.2
General Purpose I/O		Non-isolated 6 points of input and output, Power switch signal
Security (TPM)		TCG TPM2.0
Hardware monitoring		Monitoring CPU temperature, board temperature, power voltage
Watchdog timer (WDT)		Software programmable, 255 level (1sec - 255sec), Time up allows reset.
Real Time Clock		Lithium backup battery life: 10 years or more *4 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
Interface	Display	DisplayPort (v1.2) x 1 Analog RGB x 1
	Audio	LINE OUT: 3.5p Stereo mini jack MIC IN: 3.5p Stereo mini jack
	M.2 Card Slot	1 slot, M.2 2242, Key M

Item	Description	
	1 slot, M.2 2230, Key E	
CFast Card Slot	1 slot, CFast CARD Type I	
LAN	2-port (RJ-45 connector)	
USB	USB3.2 Gen2 compliant 4port (TYPE-A connector) USB2.0 compliant 2port (TYPE-A connector)	
RS-232C/422/485	1 port (9pin D-SUB connector [Male])	
RS-232C	1 port (9pin D-SUB connector [Male])	
DIO	1 port (9pin D-SUB connector [Female])	
Power supply	Rated Voltage Range	12 - 24VDC ±10% *3
	Input Voltage Range	108 - 31.2VDC
	Current Consumption (Max.)	12V 4.9A, 24V 2.6A
	External Device Power Supply Capacity	M.2 slot Key M : +3.3V : 2.5A (2,500mA x 1) M.2 slot Key E : +3.3V : 2.0A (2,000mA x 1) CFast card slot : +3.3V : 0.5A (500mA x 1) USB3.2 Gen2 I/F : +5V : 3.6A (900mA x 4 per port) USB2.0 I/F : +5V : 1.0A (500mA x 2 per port)
Physical dimensions (mm)	182(W) x 155(D) x 30.3(H) (Not including the attachment fitting or protrusions)	
Weight	1.3kg (approx.) (Not including the attachment fitting)	

- *1 The capacity of storage device in the OS pre-installed type is a value when 1GB is calculated by 1 billion bytes. The capacity that can be recognized from OS might be displayed fewer than an actual value.
- *2 Wireless LAN and Bluetooth are only available on wireless models.
- *3 Use a power cable 3 meters or shorter.
- *4 It is when the power is disconnected for 12 hours a day.

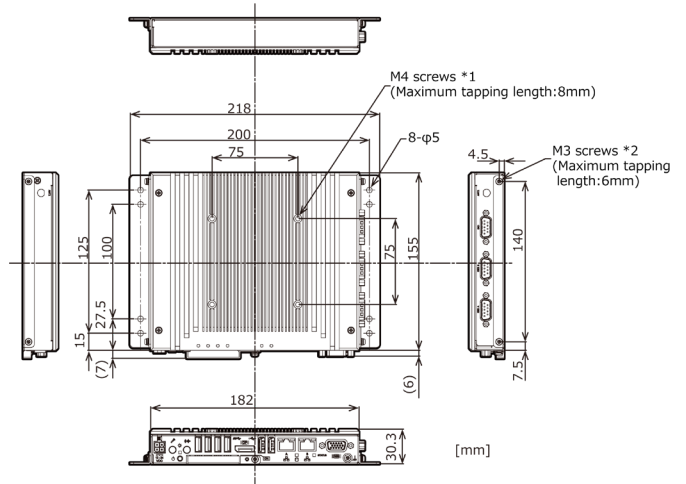
Environment Requirements

Item	Description
Operating Temperature *1	-20 - +50°C no airflow -20 - +60°C airflow 0.7m/s
Non-operating Ambient Temperature *1	-20 - +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 *2 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) Air discharge / ±8kV (IEC61000-4-2 Level 3, EN61000-4-2 Level 3)
Vibration Resistance	Sweep Resistance 10 - 57Hz /semi-amplitude vibration 0.375mm, 57 - 150Hz/5.0G 60minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)
Impact Resistance	100G half-sine shock for 11ms in X, Y, and Z directions (JIS C 60068-2-27-compliant, IEC 60068-2-27-compliant)
Grounding	Class D grounding, SG-FG / continuity
Standard	VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive) *3 UKCA *3, TELEC (set with certified wireless module) *4 UL/c-UL *3, CCC *5, KC *3*6, BSMI *3, BIS *3

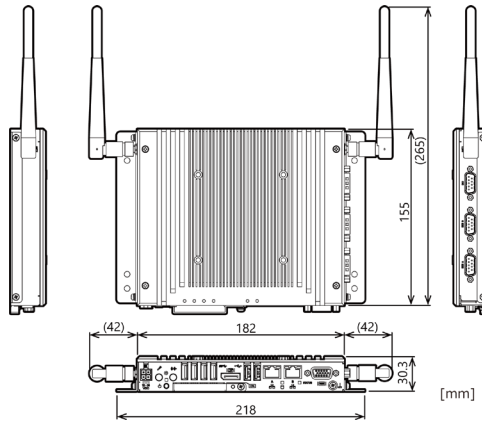
- *1 The ambient temperature should be 0°C and higher when using or storing the audio.
- *2 It is when the product is used with AC adapter PWA-90AWD1.
- *3 The wireless models are excluded from CE Standard, UKCA, c-UL, KC, BSMI and BIS.
- *4 The wireless module is set only in the wireless models.
- *5 The Base models and the wireless models are excluded from CCC.
- *6 BX-T3000-J504L08W21, BX-T3000-J605L07W21B, BX-T3000-J605L08W21 and BX-T3000-J605L09W21 is excluded from KC.

Physical Dimension

BX-T3000-Jxxxxxxx



BX-T3000R-Jxxxxxxx



Packing List

Name	BX-T3000-Jx0xxxx	BX-T3000-Jx0xxxxWxx	BX-T3000R-Jx0xxxxWxx
	[Base Model]	[OS Pre-install Model]	[OS Pre-install, Wireless Model]
The Main Body	1	1	1
The Attachment Fitting	2	2	2
USB Removal Prevention Fitting	6	6	6
Cable Clamp	2	2	2
Washer Assembled Screw (M3x5)	6	6	6
Washer Assembled Screw (M3x6)	2	2	1
Washer Assembled Screw (M3x6, Black)	4	4	4
Washer Assembled Screw for Attachment (M4x10, Black)	4	4	4
Power Supply Connector Complete Set	Power Connector	1	1
	Contact	4	4
Antenna	-	-	2
Trellix License Label	-	1*1	1*1
Product Guide	1	1	1

*1 Trellix pre-installed type only.

Supported OS

- Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
- Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)

Optional Products

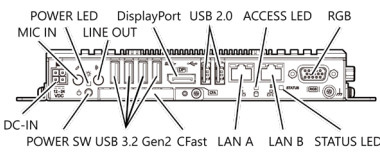
Item	Model	Description
AC adapter	PWA-90AWD1	Switching AC adapter 12VDC 7.5A
Storage	CFS-4GB-A	4GB SATA CFast card (SLC)
	CFS-8GB-A	8GB SATA CFast card (SLC)
	CFS-16GB-A	16GB SATA CFast card (SLC)
	CFS-32GBM2-A	32GB SATA CFast card (MLC)
	CFS-16GBQ-A	16GB SATA CFast card (Q-MLC)
	CFS-32GBQ-B	32GB SATA CFast card (Q-MLC) (Wide temperature range specification)
Antenna extension cable	IPC-RPSMA-2	RP-SMA connector coaxial cable
Bracket	BX-BKT-VESA02	Bracket for VESA ("75 x 75", "100 x 100")

CAUTION

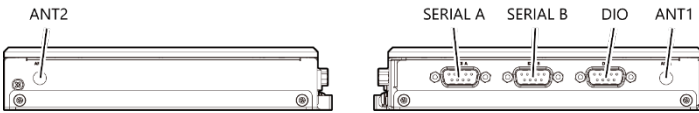
If a product other than our optional one is used, the normal operation may be impaired or the functions may be limited.

Nomenclature Of Product Components

Front



Side



Name	Function
Front	
DC-IN	DC power connector
POWER LED	Power ON display LED
ACCESS LED	SATA device access display LED
STATUS LED	Status LED
POWER SW	PC power switch
MIC IN	Mic in (3.5φ PHONE JACK)
LINE OUT	Line out (3.5φPHONE JACK)
USB 3.2 Gen2	USB 3.2 Gen2 port connector x4
USB 2.0	USB 2.0 port connector x2
CFast	CFast card slot (SATA connection)
DisplayPort	Display (20-pin female)
LAN A	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
LAN B	Ethernet 1000BASE-T/100BASE-TX/10BASE-T RJ-45 connector
RGB	Display (15-pin D-SUB, female)
Side	
SERIAL A	Serial port A connector (9-pin D-SUB, male) (RS-232C/422/485)
SERIAL B	Serial port B connector (9-pin D-SUB, male) (RS-232C)
DIO	GPIO port connector (9-pin D-sub male)
ANT1	Antenna connector (for both wireless LAN and Bluetooth) * 1
Side	
ANT2	Antenna connector (for wireless LAN) * 1

*1 Antenna connectors are available only on the wireless model.

Model

<Non-wireless models>

Model	CPU	Memory	OS	Storage
BX-T3000-J204L07	Celeron 4305UE processor	8GB	None	M.2 SSD 128GB(TLC)
BX-T3000-J204L07W19			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J204L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J205L07		16GB	None	
BX-T3000-J205L07W19			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J205L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J404L07	Core i3 8145UE processor	8GB	None	
BX-T3000-J404L07W19			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J404L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J405L07		16GB	None	
BX-T3000-J405L07W19			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J405L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J504L07	Core i5 8365UE processor	8GB	None	
BX-T3000-J504L07W19			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J504L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J504L08W21		16GB	None	
BX-T3000-J505L07			Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J505L07W19			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000-J505L07W21	16GB	None		
BX-T3000-J505L09W21		Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)		
BX-T3000-J605L07		Core i7 8665UE processor	16GB	None
BX-T3000-J605L07W19	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)			
BX-T3000-J605L07W21	Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)			
BX-T3000-J605L07W21B	Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean), Trellix pre-install			
BX-T3000-J605L08W21	16GB		None	
BX-T3000-J605L09W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	

< Wireless models >

Model	CPU	Memory	OS	Storage	
BX-T3000R-J204L07W19	Celeron 4305UE processor	8GB	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	M.2 SSD 128GB(TLC)	
BX-T3000R-J204L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)		
BX-T3000R-J205L07W19			16GB		Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)
BX-T3000R-J205L07W21		Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)			
BX-T3000R-J404L07W19		Core i3 8145UE processor			8GB
BX-T3000R-J404L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)		
BX-T3000R-J405L07W19	16GB		Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)		
BX-T3000R-J405L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)		
BX-T3000R-J504L07W19			Core i5 8365UE processor		8GB
BX-T3000R-J504L07W21	Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)				
BX-T3000R-J505L07W19	16GB	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)			
BX-T3000R-J505L07W21		Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)			

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BX-T3000R-J605L07W19	Core i7 8665UE processor	16GB	Windows 10 IoT Enterprise 2019 LTSC 64bit (Japanese / English / Chinese / Korean)	
BX-T3000R-J605L07W21			Windows 10 IoT Enterprise 2021 LTSC 64bit (Japanese / English / Chinese / Korean)	