

BP-ECS9000 Series

Quad Core Intel® Xeon®/Core™ i7/i5/i3 (Kayby Lake/Skylake) Fanless Embedded System with Intel® C236 Chipset, 9 GigE LAN with 4 PoE+, 2 Front-access SSD/HDD Tray, Isolated DIO, High Performance, Rugged, -40°C to 75°C Extended Temperature



- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor with C236
- Fanless, -40°C to 75°C Operating Temperature
- 9 Independent GigE LAN with 4 IEEE 802.3at PoE+
- SIM Sockets for WiFi/4G/3G/LTE/GPRS/UMTS
- Front-access : 2 2.5 SSD Tray, 3 SIM, 1 CFast
- Supports multiple 10GigE Ethernet/10 GigE SFP+ Fiber LAN connections
- Up to 6 Mini PCIe expansions
- 16 Isolated DIO : 8 DI, 8 DO
- 6V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control



Intelligent Automation



Vehicle Computing



Machine Vision



Intelligent Surveillance



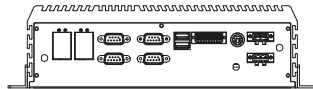
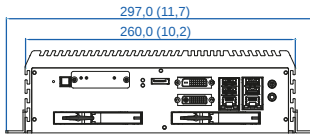
Energy Management



Vecow

Dimensions & Drawing

Unit: mm (inch)



Specifications

System	
Processor	Quad Core Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake-S/Skylake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2400/2133 MHz SO-DIMM, up to 64GB
I/O Interface	
Serial	4 COM RS-232/422/485 (ESD 8KV)
USB	• 6 USB 3.0 (External) • 1 USB 3.0 (Internal)
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO (Optional)
LED	Power, HDD, PoE
SIM Card	3 SIM Card Socket (External)
Expansion	
Mini PCIe	3 Mini PCIe Socket : • 2 Full-size for PCIe/USB/External SIM/mSATA • 1 Half-size for PCIe/USB 3.0/External SIM
SUMIT A, B	2 SUMIT Slot (Optional)
Graphics	
Processor	Intel® HD Graphics P630/630/P530/530
Interface	• DVI-I : Up to 1920 x 1200 @ 60Hz • DVI-D : Up to 1920 x 1200 @ 60Hz • DisplayPort : Up to 4096 x 2304 @ 60Hz
Storage	
SATA	2 SATA III (6Gbps)
mSATA	2 SATA III (Mini PCIe Type, 6Gbps)
SATA DOM	1 SATA II (3Gbps)SSSS
Storage Device	• 1 CFast Socket, Push-in/ Push-out Ejector
BP-ECS9000-9R, PoER, 6FR, 4R, 2R: 2 Front-access 2.5" SSD/HDD Tray	
BP-ECS9000-9GD, PoE, 6F, 4G, 2G: 2 2.5" SSD/HDD Bracket (Internal)	
Audio	
Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I219LM GigE LAN supports iAMT 11.0
LAN 2	Intel® I210 GigE LAN
LAN 7 to LAN 9	Intel® I210 GigE LAN

PoE	
LAN 3 to LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
Fiber	
LAN 5	1000BASE SFP by Intel® I350
LAN 6	1000BASE SFP by Intel® I350
Power	
Power Input	6V to 36V, DC-in
Power Interface	• 3-pin Terminal Block : V+, V-, Frame Ground • Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Management	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats
Software Support	
OS	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	
Dimension	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	3.8 kg (8.38 lb)
Mounting	• Wallmount by mounting bracket • DIN Rail Mount
Environment	
Operating Temp.	35W TDP CPU : • Core™ i7, i5, i3 : -40°C to 75°C (-40°F to 167°F) • Xeon® E3-1268L v5 : -40°C to 70°C (-40°F to 158°F) 65W TDP CPU : Core™ i7, i5, i3 : -40°C to 55°C (-40°F to 131°F) 80W TDP CPU : Xeon® E3-1275 v6, E3-1275 v5, E3-1225 v5 : -40°C to 45°C (-40°F to 113°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 75°C
Shock	• IEC 60068-2-27 • SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	• IEC 60068-2-64 • SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	E13, CE, FCC, EN50155, EN50121-3-2

Order Information

BP-ECS9000-9R	• BP-ECS9000, 9 GigE LAN w/4 PoE+, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
BP-ECS9000-9GD	• BP-ECS9000, 9 GigE LAN w/4 PoE+, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
BP-ECS9000-PoER	• BP-ECS9000, 6 GigE LAN w/4 PoE+, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
BP-ECS9000-PoE	• BP-ECS9000, 6 GigE LAN w/4 PoE+, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
BP-ECS9000-6FR	• BP-ECS9000, 6 GigE LAN w/2 SFP, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
BP-ECS9000-6F	• BP-ECS9000, 6 GigE LAN w/2 SFP, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
BP-ECS9000-4R	• BP-ECS9000, 4 GigE LAN, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
BP-ECS9000-4G	• BP-ECS9000, 4 GigE LAN, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
BP-ECS9000-2R	• BP-ECS9000, 2 GigE LAN, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
BP-ECS9000-2G	• BP-ECS9000, 2 GigE LAN, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO

DDR4 32G	• Certified DDR4 32GB 2666MHz RAM
DDR4 16G	• Certified DDR4 16GB 2400/2133 MHz RAM
DDR4 8G	• Certified DDR4 8GB 2400/2133 MHz RAM
DDR4 4G	• Certified DDR4 4GB 2400/2133 MHz RAM
PWA-120W1	• 120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-120WM4P1	• 120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
PWA-160W-WT	• 160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180W	• 180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-280W-WT	• 280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
TMK2-20P-100	• Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	• Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	• Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
VESA Mount	• VESA Mounting Kit
DIN-RAIL Kit	• DIN Rail and VESA Mounting Kit
Rack Mount	• 2U Rackmount Kit
4G Module	• Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	• WiFi & Bluetooth Module with Antenna

CPU List

Series	CPU	Cache (MB)	Turbo Freq. (GHz)	TDP (W)	ECC Memory
Intel® Xeon®	E3-1275 v6	8	4.2	80	Y
	E3-1275 v5		4	80	
	E3-1225 v5		3.7	80	
	E3-1268L v5		3.4	35	
Intel® Core™	i7-7700	8	4.2	65	NA
	i7-7700T		3.8	35	
	i7-6700		4	65	
	i7-6700TE		3.4	35	
	i5-7500	6	3.8	65	NA
	i5-7500T		3.3	35	
	i5-6500		3.6	65	
	i5-6500TE		3.3	35	
	i3-7101E	3	3.9	65	Y
	i3-7101TE	4	3.4	35	
	i3-6100		3.7	65	
	i3-6100TE		2.7	35	

BP-ECS9000-20220118

* All product information may subject to change without prior notice.

* The rights of all brand names, product names and trademarks belong to their respective owners.

Copyright © 2022 Vecow Co., Ltd. All rights reserved.

Vecow