



EPC-WHL

8th Gen Intel® Whiskey Lake Fanless Tiny System

- > 8th Gen Intel® Whiskey Lake-U 4 Core Ultra Low 15W Processor
- > Intel® UHD Graphics 620/610
- > Dual Gigabit Ethernet, HD Audio
- > Dual Channel Max up to 64GB DDR4 2400Mhz
- > Dual Expansion, M.2 Key-B/E
- > Dual HDMI w/CEC Controller (Factory Option)
- > TPM 2.0, RAID 0/1
- > Support VESA (Factory Option)

+ Spec

System Information	
Processor	Intel® Core™ i7-8665UE Processor (8M Cache, up to 4.40 GHz) Intel® Core™ i5-8365UE Processor (6M Cache, up to 4.10 GHz) Intel® Core™ i3-8145UE Processor (4M Cache, up to 3.9GHz) Intel® Celeron® Processor 4305UE (2M Cache, 2.00 GHz)
System Memory	2x 260-Pin SO-DIMM Socket, Max. Up to 64GB DDR4 2400MHz
BIOS Information	AMI uEFI BIOS, 128Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec.
H/W Status Monitor	Monitoring System Temperature and Voltage with Auto Throttling Control
SBC	ECM-WHL
Expansion	
Expansion	1 x M.2 (Key-B, 2242/3042, PCIe, SATA, USB 3.0, USB 2.0, SIM Slot) 1 x M.2 (Key-E, 2230, PCIe, USB2.0, CNVi)
Storage	
Storage	1 x 2.5" Drive Bay (7mm) 1 x M.2 (2242) Key-B Support RAID 0/1
I/O	
USB Port	4 x USB 3.1, 2 x USB2.0 (Factory option)
COM Port	1 x RS-232 (Factory Option)
Antenna	2 x Antenna Mounting with Dust Protection Cover
System Control	
LED Indicator	1 x Power on/off LED on front side 1 x Storage Access LED on front side
Display	
Graphic Chipset	Intel® UHD Graphics 620 (i7-8665UE, i5-8365UE, i3-8145UE) Intel® UHD Graphics 610 (4305UE)
Spec. & Resolution	2 x HDMI 1.4: Max. Resolution 4096x2160@24Hz
Multiple Display	Dual Display
Audio	
Audio Codec	Realtek ALC888S
Audio Interface	1 x Mic-in, 1 x Line-out
Certifications	
Certification Information	CE, FCC Class B
Ethernet	
LAN Chipset	1 x Intel® I211AT 1 x Intel® I219LM
Ethernet Interface	10/100/1000 Base-Tx Gigabit Ethernet Compatible
LAN Port	2 x RJ-45
Power Requirement	
DC Input	Typical +12V
DC Input Connector	Lockable DC Jack
ACPI	Single Power ATX Support S0, S3, S4, S5 ACPI5.0 Compliant
Power Mode	AT/ATX (ATX is default setting)
Adapter	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 12V/10A AC-DC 120W Adapter
Mechanical & Environmental	



Operating Temperature	With extended temperature peripherals: -10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s air flow With extended temperature peripherals: -10°C ~ 40°C (14°F ~ 104°F) with 0.2m/s air flow With 2.5" hard drive: 0°C ~ 40°C (32°F ~ 113°F) with 0.5m/s air flow
Storage Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimension (W x L x H)	177mm x 123mm x 55mm (7" x 4.8" x 2.2")
Weight	2.65lbs(1.2KG)
Vibration Test	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis
Shock Test	With SSD: 50G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
Mounting Kit	Stand (Default) VESA Mount kit (Factory Option)
Drop	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces
Construction	Aluminum + Metal
Software Support	
OS Information	Win 10, Linux
Ordering Information	
Ordering Information	EPC-WHL-86-C1-1R 8th Gen Intel®Core™ Processor Core™ i7-8665UE Fanless Tiny System EPC-WHL-83-C1-1R 8th Gen Intel®Core™ Processor Core™ i5-8365UE Fanless Tiny System EPC-WHL-81-C1-1R 8th Gen Intel®Core™ Processor Core™ i3-8145UE Fanless Tiny System EPC-WHL-43-C1-1R 8th Gen Intel®Celeron 4305UE Fanless Tiny System