



## 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-	
<b>Processor</b>	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)
<b>System Memory</b>	2x 260-Pin SO-DIMM Socket, Max. Up to 64GB DDR4 2400MHz
<b>BIOS Information</b>	AMI uEFI BIOS, 128Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec.
<b>H/W Status Monitor</b>	Monitoring System Temperature and Voltage with Auto Throttling Control
<b>TPM</b>	TPM 2.0
<b>SBC</b>	ECM-WHL
Expansion	
<b>Expansion</b>	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	
<b>Storage</b>	1 x 2.5" Drive Bay (7mm) 1 x M.2 (2242) Key-B Support RAID 0/1
I/O	
<b>USB Port</b>	4 x USB 3.1, 2 x USB2.0 (Factory option)
<b>COM Port</b>	1 x RS-232 (Factory Option)
<b>Antenna</b>	2 x Antenna Mounting with Dust Protection Cover
System Control	
<b>LED Indicator</b>	1 x Power on/off LED on front side 1 x Storage Access LED on front side
Display	
<b>Graphic Chipset</b>	Intel® UHD Graphics 620 (i7-8665UE, i5-8365UE, i3-8145UE) Intel® UHD Graphics 610 (4305UE)
<b>Spec. &amp; Resolution</b>	2 x HDMI 1.4: Max. Resolution 4096x2160@24Hz
<b>Multiple Display</b>	Dual Display
Audio	
<b>Audio Codec</b>	Realtek ALC888S
<b>Audio Interface</b>	1 x Mic-in, 1 x Line-out
Certifications	
<b>Certification Information</b>	CE, FCC Class B, UKCA
Ethernet	
<b>LAN Chipset</b>	1 x Intel® I210AT 1 x Intel® I219LM
<b>Ethernet Interface</b>	10/100/1000 Base-Tx Gigabit Ethernet Compatible
<b>LAN Port</b>	2 x RJ-45
Power Requirement	
<b>DC Input</b>	Typical +12V
<b>DC Input Connector</b>	Lockable DC Jack
<b>ACPI</b>	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
<b>Power Mode</b>	AT/ATX (ATX is default setting)
<b>Adapter</b>	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 12V/10A AC-DC 120W Adapter
Mechanical & Environmental	



<b>Operating Temperature</b>	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
<b>Storage Temperature</b>	-30~70C° (-22°F ~ 158°F)
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Dimension (W x L x H)</b>	177mm x 123mm x 55mm (7" x 4.8" x 2.2")
<b>Weight</b>	2.65lbs(1.2KG)
<b>Vibration Test</b>	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis
<b>Shock Test</b>	With SSD: 50G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
<b>Mounting Kit</b>	Stand (Default) VESA Mount kit (Factory Option)
<b>Drop</b>	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces
<b>Construction</b>	Aluminum + Metal
<b>Software Support</b>	
<b>OS Information</b>	Win 10, Linux
<b>Ordering Information</b>	
<b>Ordering Information</b>	<p>EPC-WHL-86-C2-1R 8th Gen Intel®Core™ Processor Core™ i7-8665UE Fanless Tiny System</p> <p>EPC-WHL-83-C2-1R 8th Gen Intel®Core™ Processor Core™ i5-8365UE Fanless Tiny System</p> <p>EPC-WHL-81-C2-1R 8th Gen Intel®Core™ Processor Core™ i3-8145UE Fanless Tiny System</p> <p>EPC-WHL-43-C2-1R 8th Gen Intel®Celeron 4305UE Fanless Tiny System</p> <p>E1702031831R Australia Power Cord</p> <p>E1702031833R USA Power Cord</p> <p>E1702031834R Japan Power Cord</p> <p>E170P060380R UK Power Cord</p> <p>E1702031000R EU Power Cord</p>