



## EPC-WHL-Din Rail

### 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
- > Din Rail Type

#### + Spec

| -System Information-             |                                                                                                                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processor</b>                 | Intel® Core™ i7-8665UE Processor (8M Cache, up to 4.40 GHz)<br>Intel® Core™ i5-8365UE Processor (6M Cache, up to 4.10 GHz)<br>Intel® Core™ i3-8145UE Processor (4M Cache, up to 3.9GHz)<br>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)<br>1 x M.2 (Key-E, 2230, PCIe, USB2.0, CNVi)                                                                                                                                  |
| Storage                          |                                                                                                                                                                                                                                                  |
| <b>Storage</b>                   | 1 x 2.5" Drive Bay (7mm)<br>1 x M.2 (2242) Key-B<br>Support RAID 0/1                                                                                                                                                                             |
| I/O                              |                                                                                                                                                                                                                                                  |
| <b>USB Port</b>                  | 4 x USB 3.1                                                                                                                                                                                                                                      |
| <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<br>1 x Storage Access LED on front side                                                                                                                                                                       |
| Display                          |                                                                                                                                                                                                                                                  |
| <b>Graphic Chipset</b>           | Intel® UHD Graphics 620 (i7-8665UE, i5-8365UE, i3-8145UE)<br>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<br>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<br>ACPI 5.0 Compliant                                                                                                                                                                                    |
| <b>Power Mode</b>                | AT/ATX (ATX is default setting)                                                                                                                                                                                                                  |
| <b>Adapter</b>                   | Input: 100 ~ 240Vdc/ 50 ~ 60Hz<br>Output: 12V/10A AC-DC 120W Adapter                                                                                                                                                                             |
| Mechanical & Environmental       |                                                                                                                                                                                                                                                  |

[www.avalue.com.tw](http://www.avalue.com.tw)



|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | With extended temperature peripherals: -10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s air flow<br>With extended temperature peripherals: -10°C ~ 40°C (14°F ~ 104°F) with 0.2m/s air flow<br>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>          | Din-Rail (Default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <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-C2-2R<br/>8th Gen Intel®Core™ Processor Core™ i7-8665UE Fanless Din Rail System</p> <p>EPC-WHL-83-C2-2R<br/>8th Gen Intel®Core™ Processor Core™ i5-8365UE Fanless Din Rail System</p> <p>EPC-WHL-81-C2-2R<br/>8th Gen Intel®Core™ Processor Core™ i3-8145UE Fanless Din Rail System</p> <p>EPC-WHL-43-C2-2R<br/>8th Gen Intel®Celeron 4305UE Fanless Din Rail 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> |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660