



## EPS-KBLHE

### 7th Generation Intel® Core™ i7/i5/i3 Fanless Rugged Embedded System



- > 7th Generation Intel® Core™ i7/i5/i3 Processor
- > Mobile Intel® QM175 Chipset
- > One 260-pin SODIMM Socket Up to 16GB DDR4 2400MHz SDRAM
- > Rich I/O, 1 SATA III, 1 Mini PCIe, 1 M.2, 1 Line-Out, 1 Mic-In, 2 LAN, 2 HDMI, 2 USB 2.0, 4 USB 3.0, 2 COM
- > Fanless Operating from -10°C~ 50/60°C
- > 12V DC Power Input (Factory Option 9~36V)
- > Support TPM 2.0 (Factory Option)

#### + Spec

System	
<b>Processor</b>	Intel® Core™ i7-7820EQ Processor (8M Cache, up to 3.70 GHz) Intel® Core™ i5-7440EQ Processor (6M Cache, up to 3.60 GHz) Intel® Core™ i3-7100E Processor (3M Cache, 2.90 GHz)
<b>System Chipset</b>	Mobile Intel® QM175 Chipset
<b>System Memory</b>	1 x 240-Pin DDR4 2400MHz SO-DIMM up to 16 GB
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec. and 1sec./step
<b>H/W Status Monitor</b>	Monitoring System Temperature, Voltage and FAN Status with Auto Throttling Control
<b>SBC</b>	ECM-KBLH
Expansion	
<b>Expansion</b>	1 x Full Size Mini PCIe 1 x M.2 (B-Key)
Storage	
<b>Storage</b>	1 x 2.5" Drive Bay 1 x M.2(B-Key) 1 x mSATA
I/O	
<b>USB</b>	2 x USB 2.0 4 x USB 3.0
<b>COM Port</b>	1 x RS-232 1 x RS-232/422/485 (Jumper)
<b>Antenna</b>	2 x Antenna Mounting
Display	
<b>Chipset</b>	Processor Graphics, Intel® HD Graphics 630
<b>Resolution</b>	2 x HDMI: Max. Resolution 4096x2160 @ 24Hz
<b>Multiple Display</b>	Dual Display
Audio	
<b>Chipset</b>	Realtek ALC233 supports 2.1-CH
<b>Audio Interface</b>	Mic-In, Line-Out
Ethernet	
<b>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
Mechanical & Environmental	
<b>Power Requirement</b>	+12V w/EPM-1712 supports typical 12/24 Vdc (+9~ 36V) in Terminal Block
<b>ACPI</b>	Single Power ATX Support S0, S3, S4, S5 ACPI 1.0b and 2.0 Compliant
<b>Power Type</b>	AT/ATX (ATX is default setting)
<b>Operating Temp</b>	With extended temperature peripherals: -10°C ~ 50°C (14°F ~ 122°F) with air flow
<b>Storage Temp</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	5% ~ 90% Relative Humidity, Non-condensing
<b>Construction</b>	Aluminum + Metal
<b>Mounting Kit</b>	Wall Mount kit (Standard)
<b>Dimension (L x W x H)</b>	250mm x 220mm x 60mm (9.84" x 8.66" x 2.36")
<b>Vibration Test</b>	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 1hr/3 axis
<b>Shock Test</b>	With SSD: 50Grms, IEC 60068-2-27, Half Sine, 11ms
<b>Drop</b>	ISTA 2A, IEC-60068-2-32 Test : Ed
Certifications	



<b>Certification Information</b>	CE, FCC Class B
<b>Software Support</b>	
<b>OS Information</b>	Win 10, Linux
<b>Power Requirement</b>	
<b>Adapter</b>	Input:100 ~ 240Vac/ 50 ~ 60Hz Output: 12V/10A AC-DC 120W Adapter

**+ Ordering**

EPS-KBLHE-78-A1-1R  
7<sup>th</sup> Gen Intel® Core™ Processor Core™ i7-7820EQ Fanless Rugged Embedded System

EPS-KBLHE-74-A1-1R  
7<sup>th</sup> Gen Intel® Core™ Processor Core™ i5-7440EQ Fanless Rugged Embedded System

EPS-KBLHE-71-A1-1R  
7<sup>th</sup> Gen Intel® Core™ Processor Core™ i3-7100E Fanless Rugged Embedded System