

# ECS-8000-PoER

Quad Core Intel® Core™ i7 (Broadwell-H) Fanless Embedded System with Intel® QM87 Chipset, 6 Gigabit LAN with 4 PoE+, 2 Front-access SSD Tray, Isolated DIO, High Performance, Rugged, Extended Temperature



## Features

- Quad Core Intel® Core™ i7 Mobile Processor (Broadwell-H)
- VGA/ DVI-D/ DisplayPort/ eDP Interface, up to 3 independent 4K displays
- 6 Gigabit LAN with 4 IEEE 802.3at PoE+
- 3 Mini PCIe Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 2 External SIM Card Socket
- 2 Front-access 2.5" SSD Tray, 1 Front-access CFast Socket
- 16 Isolated DIO (8 DI, 8 DO)
- Fanless, -25°C to 70°C Operating Temperature
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



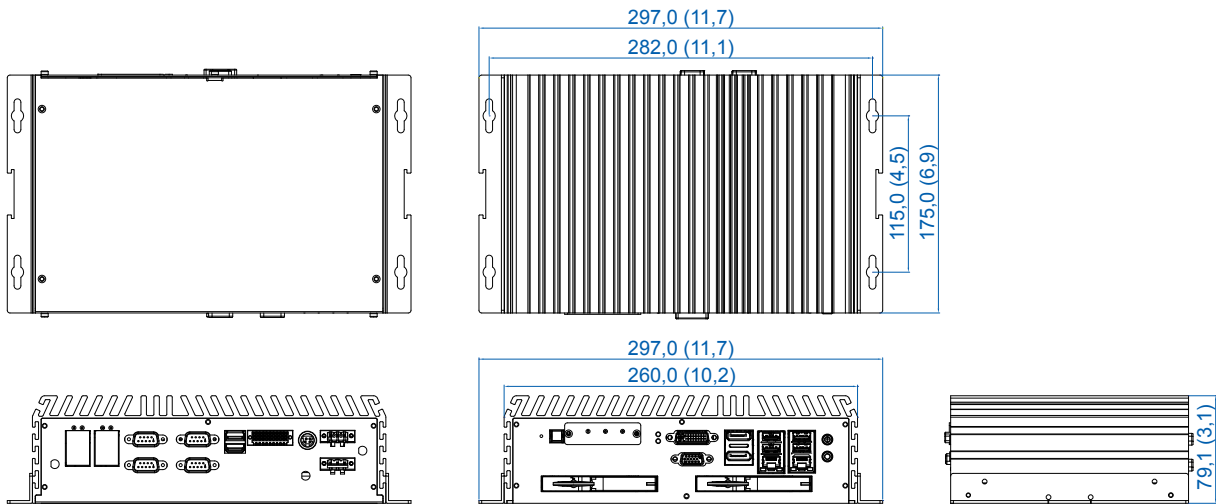
## Specifications

System	
Processor	Quad Core Intel® Core™ i7-5850EQ/ i7-5700EQ (Broadwell-H)
Chipset	Intel® QM87
BIOS	AMI
SIO	IT8786E
Memory	2 DDR3L 1600MHz SO-DIMM, up to 32GB
I/O Interface	
Serial	4 COM RS-232/ 422/ 485
USB	<ul style="list-style-type: none"> <li>▪ 4 USB 3.0</li> <li>▪ 3 USB 2.0 (2 External, 1 Internal)</li> </ul>
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
GPIO	16 GPIO (Internal)
LED	Power, HDD, PoE
SIM Card	2 SIM Card Socket (External)
Expansion	
Mini PCIe	3 Mini PCIe Socket : <ul style="list-style-type: none"> <li>▪ 2 Full-size for PCIe/ USB/ External SIM Card/ mSATA</li> <li>▪ 1 Half-size for PCIe/ USB</li> </ul>
SUMIT A, B	2 SUMIT Slot (Optional)
Graphics	
Graphics Processor	<ul style="list-style-type: none"> <li>▪ Intel® Iris™ Pro Graphics 6200 (5850EQ)</li> <li>▪ Intel® HD Graphics 5600 (5700EQ)</li> </ul>
Interface	<ul style="list-style-type: none"> <li>▪ VGA : Up to 1920 x 1200 @ 60Hz</li> <li>▪ DVI-D : Up to 1920 x 1080 @ 60Hz</li> <li>▪ DisplayPort 1 : Up to 4096 x 2304 @ 60Hz</li> <li>▪ DisplayPort 2 : Up to 4096 x 2304 @ 60Hz</li> <li>▪ eDP : Up to 4096 x 2304 @ 60Hz</li> </ul>
Storage	
SATA	2 SATA III (6Gbps)
mSATA	2 SATA III (Mini PCIe Type, 6Gbps)
SATA DOM	1 SATA II (3Gbps)
Storage Device	<ul style="list-style-type: none"> <li>▪ 1 CFast Socket, Push-in/ Push-out Ejector</li> <li>▪ 2 Front-access 2.5" SSD/ HDD Tray</li> </ul>
Audio	
Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I218 Gigabit LAN supports iAMT 9.5
LAN 2	Intel® I210 Gigabit LAN

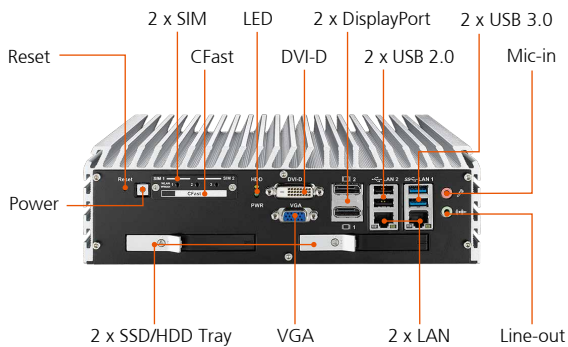
PoE	
LAN 3	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 4	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 5	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 6	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
Power	
Power Input	6V to 36V, DC-in
Power Interface	<ul style="list-style-type: none"> <li>▪ 3-pin Terminal Block : V+, V-, Frame Ground</li> <li>▪ Mini-DIN 4-pin</li> </ul>
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 8, Windows 7, Linux
Mechanical	
Dimensions (W x L x H)	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	2.8 kg (6.2 lb)
Mounting	<ul style="list-style-type: none"> <li>▪ Wallmount by mounting bracket</li> <li>▪ 2U Rackmount (Optional)</li> </ul>
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-27</li> <li>▪ SSD : 50G @ wallmount, Half-sine, 11ms</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-64</li> <li>▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis</li> </ul>
EMC	CE, FCC, EN 50155, EN 50121-3-2

## Dimensions

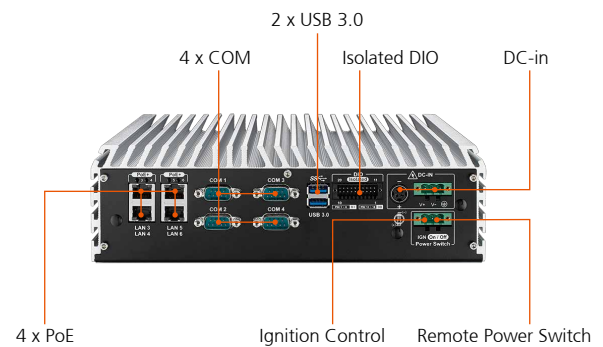
Unit : mm/ inch



## Front I/O



## Rear I/O



## Order Information

<b>ECS-8000-PoER850Q</b>	ECS-8000 Fanless Embedded System, Quad Core 5 <sup>th</sup> Gen Intel® Core™ i7-5850EQ Processor (Broadwell-H), 6 GbE LAN with 4 PoE*, 2 Front-access SSD Tray, 4 COM, 7 USB, 2 SIM, Isolated DIO, 16 GPIO
<b>ECS-8000-PoER700Q</b>	ECS-8000 Fanless Embedded System, Quad Core 5 <sup>th</sup> Gen Intel® Core™ i7-5700EQ Processor (Broadwell-H), 6 GbE LAN with 4 PoE*, 2 Front-access SSD Tray, 4 COM, 7 USB, 2 SIM, Isolated DIO, 16 GPIO
<b>M340L-W28M1</b>	Vecow DDR3L 4GB 1333/ 1066 MHz RAM, Wide Temperature -40°C to +85°C
<b>DDR3L4G</b>	Certified DDR3L 4G RAM
<b>DDR3L8G</b>	Certified DDR3L 8G RAM
<b>PWA-120W</b>	120W, 24V, 90VAC to 264VAC Power Adapter with 3-pin Terminal Block
<b>PWA-120WM4P</b>	120W, 24V, 90VAC to 264VAC Power Adapter with 4-pin Mini-DIN Connector
<b>PWA-160W-WT</b>	160W, 24V, 85VAC to 264VAC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
<b>TMBK-20P-100</b>	Terminal Block 20-pin to SCSI, 100cm
<b>TMBK-20P-500</b>	Terminal Block 20-pin to SCSI, 500cm
<b>TMB-SCSI-20P</b>	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
<b>VESA Mount</b>	VESA Mounting Kit
<b>DIN-RAIL</b>	DIN Rail Kit
<b>Rack Mount</b>	2U Rackmount Kit
<b>3G Module</b>	Mini PCIe 3G/GPS Module with Antenna
<b>4G Module</b>	Mini PCIe 4G/GPS Module with Antenna
<b>WiFi &amp; Bluetooth Module</b>	Intel® Mini PCIe WiFi & Bluetooth Module with Antenna