

# ECS-4000-PoER/ PoE/ 2G/ 2R

Slim Embedded System with Intel® Core™ i7/ i5/ i3 Processor (Broadwell-U), 6 GigE LAN with 4 PoE+, 2 Front-access SSD Tray, Isolated DIO, Fanless, Rugged, Extended Temperature



## Features

- Intel® Core™ i7/ i5/ i3 U-series SoC (Broadwell-U)
- Supports 4K Resolution, up to 3 independent displays
- Fanless, -25°C to 70°C Operating Temperature
- 6 GigE LAN with 4 IEEE 802.3at PoE+
- 2 Front-access 2.5" SSD Tray, 1 Front-access CFast Socket
- 16 Isolated DIO : 8 DI, 8 DO
- 2 Mini PCIe Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 2 External SIM Card Socket
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



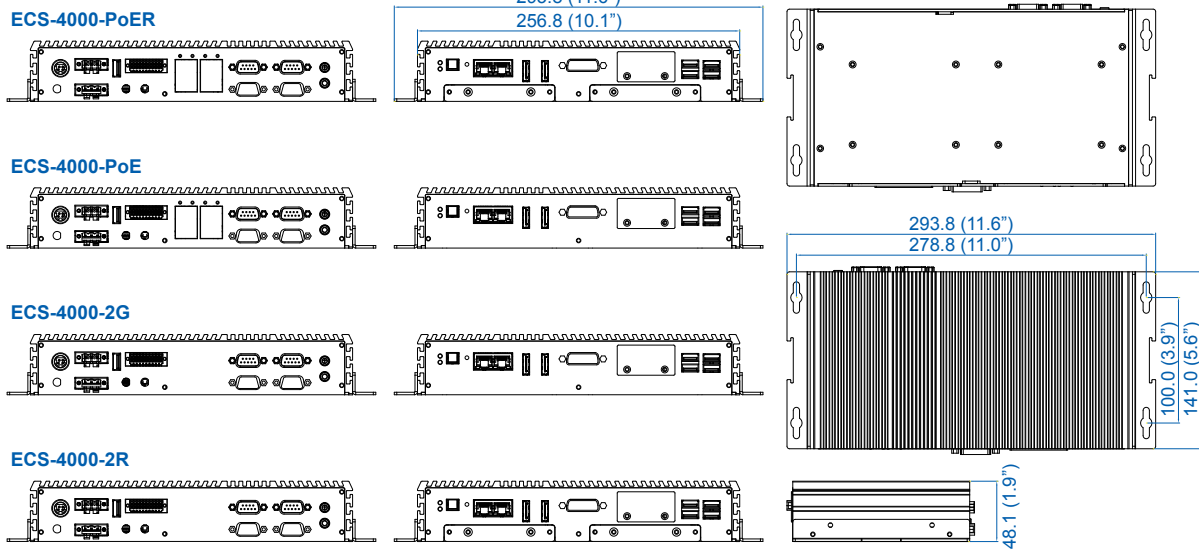
## Specifications

System	
Processor	Intel® Core™ i7-5650U/ i5-5350U/ i3-5010U (Broadwell-U)
Chipset	Intel® SoC (Broadwell)
BIOS	AMI
SIO	IT8786E
Memory	2 DDR3L 1333/1600 MHz SO-DIMM, up to 16GB
I/O Interface	
Serial	4 COM RS-232/ 422/ 485
USB	<ul style="list-style-type: none"> <li>2 USB 3.0</li> <li>4 USB 2.0 (3 External, 1 Internal)</li> </ul>
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO (ECS-4000-PoER, ECS-4000-PoE)
LED	Power, HDD, PoE
SIM Card	2 SIM Card Socket (External)
Expansion	
Mini PCIe	2 Mini PCIe Socket : <ul style="list-style-type: none"> <li>1 Mini PCIe for PCIe/ USB/ External SIM Card</li> <li>1 Mini PCIe for PCIe/ USB/ External SIM Card/ mSATA</li> </ul>
Graphics	
Graphics Processor	Intel® HD Graphics 6000
Interface	<ul style="list-style-type: none"> <li>DVI-D : Up to 1920 x 1080 @ 60Hz</li> <li>DisplayPort 1 : Up to 3840 x 2160 @ 60Hz</li> <li>DisplayPort 2 : Up to 3840 x 2160 @ 60Hz</li> </ul>
Storage	
SATA	2 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	<ul style="list-style-type: none"> <li>1 CFast Socket, Push-in/ Push-out Ejector</li> <li>ECS-4000-PoER, 2R : 2 Front-access 2.5" SSD/ HDD Tray</li> <li>ECS-4000-PoE, 2G : 2 2.5" SSD/ HDD Bracket (Internal)</li> </ul>
Audio	
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I218 GigE LAN supports iAMT
LAN 2	Intel® I210 GigE LAN
PoE (ECS-4000-PoER, ECS-4000-PoE)	
LAN 3	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 4	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 5	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210

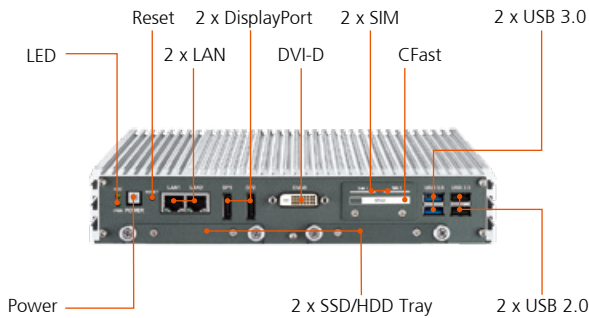
Power	
Power Input	6V to 36V, DC-in
Power Interface	<ul style="list-style-type: none"> <li>3-pin Terminal Block : V+, V-, Frame Ground</li> <li>Mini-DIN 4-pin</li> </ul>
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
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 8.1, Windows 7, Linux
Mechanical	
Dimensions (W x L x H)	257mm x 141mm x 48mm (10.1" x 5.6" x 1.9")
Weight	2.1 kg (4.6 lb)
Mounting	<ul style="list-style-type: none"> <li>Wallmount by mounting bracket</li> <li>DIN Rail Mount (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>
Certification	CE, FCC, EN50155, EN50121-3-2

## Dimensions

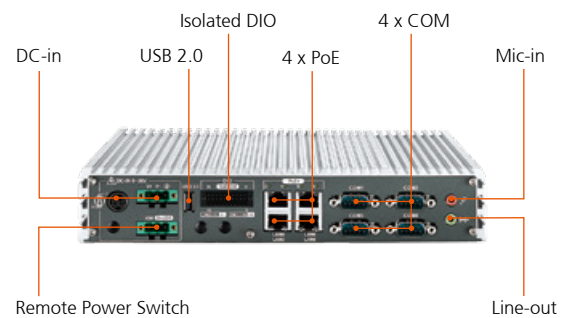
Unit : mm/ inch



## Front I/O (ECS-4000-PoER)



## Rear I/O (ECS-4000-PoER)



## Order Information

<b>ECS-4000-PoER650U</b>	ECS-4000, Intel® Core™ i7-5650U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 2 Front-access SSD Tray, 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-PoER350U</b>	ECS-4000, Intel® Core™ i5-5350U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 2 Front-access SSD Tray, 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-PoER010U</b>	ECS-4000, Intel® Core™ i3-5010U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 2 Front-access SSD Tray, 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-PoE650U</b>	ECS-4000, Intel® Core™ i7-5650U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-PoE350U</b>	ECS-4000, Intel® Core™ i5-5350U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-PoE010U</b>	ECS-4000, Intel® Core™ i3-5010U Processor (Broadwell-U), 6 GigE LAN with 4 PoE <sup>+</sup> , 4 COM, 6 USB, Isolated DIO
<b>ECS-4000-2G650U</b>	ECS-4000, Intel® Core™ i7-5650U Processor (Broadwell-U), 2 GigE LAN, 4 COM, 6 USB, 16 GPIO
<b>ECS-4000-2G350U</b>	ECS-4000, Intel® Core™ i5-5350U Processor (Broadwell-U), 2 GigE LAN, 4 COM, 6 USB, 16 GPIO
<b>ECS-4000-2G010U</b>	ECS-4000, Intel® Core™ i3-5010U Processor (Broadwell-U), 2 GigE LAN, 4 COM, 6 USB, 16 GPIO
<b>ECS-4000-2R650U</b>	ECS-4000, Intel® Core™ i7-5650U Processor (Broadwell-U), 2 GigE LAN, 2 Front-access SSD Tray, 4 COM, 6 USB, 16 GPIO
<b>ECS-4000-2R350U</b>	ECS-4000, Intel® Core™ i5-5350U Processor (Broadwell-U), 2 GigE LAN, 2 Front-access SSD Tray, 4 COM, 6 USB, 16 GPIO
<b>ECS-4000-2R010U</b>	ECS-4000, Intel® Core™ i3-5010U Processor (Broadwell-U), 2 GigE LAN, 2 Front-access SSD Tray, 4 COM, 6 USB, 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-1600 4G RAM
<b>DDR3L8G</b>	Certified DDR3L-1600 8G RAM
<b>PWA-120W</b>	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
<b>PWA-120WM4P</b>	120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
<b>PWA-160W-WT</b>	160W, 24V, 85V AC to 264V AC 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>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