

# ECS-9055R

Quad Core Intel® Xeon®/Core™ i7/i5/i3 (Kaby Lake/Skylake) 10GigE Embedded System with Intel® C236 Chipset, 2-port 10GigE LAN, 6 GigE LAN with 4 PoE+, 2 Front-access SSD Tray, Isolated DIO, High Performance, EN50155, EN50121



## Features

- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor with Intel® C236 Chipset
- Dual 10GigE LAN support up to 10Gbps data rate
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- SIM Sockets for WiFi/4G/3G/LTE/GPRS/UMTS
- 2 Front-access 2.5" SSD/HDD Tray, 6 USB 3.0
- 6V to 36V DC-in with 80V Surge Protection
- 16 Isolated DIO, Ignition Power Control
- 3 SIM Socket, 1 CFast Socket, 4 COM RS-232/422/485



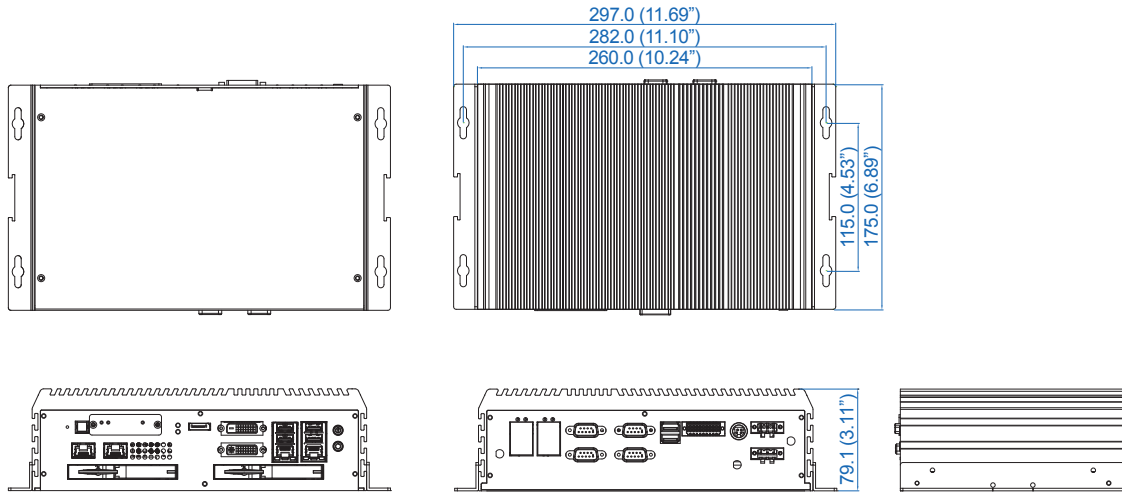
## Specifications

System	
Processor	Quad Core Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake-S/Skylake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2400/2133 MHz SO-DIMM, up to 64GB
I/O Interface	
Serial	4 COM RS-232/422/485 (ESD 8KV)
USB	<ul style="list-style-type: none"> <li>▪ 6 USB 3.0 (6 External)</li> <li>▪ 1 USB 3.0 (Internal)</li> </ul>
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, PoE, Wireless
SIM Card	3 External SIM Card Socket
Expansion	
Mini PCIe	3 Mini PCIe Socket : <ul style="list-style-type: none"> <li>▪ 2 Full-size for PCIe/USB/External SIM/mSATA</li> <li>▪ 1 Half-size for PCIe/USB 3.0/External SIM</li> </ul>
Graphics	
Graphics Processor	Intel® HD Graphics P630/P530/630/530
Interface	<ul style="list-style-type: none"> <li>▪ DVI-I : Up to 1920 x 1200 @ 60Hz</li> <li>▪ DVI-D : Up to 1920 x 1200 @ 60Hz</li> <li>▪ DisplayPort : Up to 4096 x 2304 @ 60Hz</li> </ul>
Storage	
SATA	2 SATA III (6Gbps)
mSATA	1 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 ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I219LM GigE LAN supports iAMT 11.0
LAN 2	Intel® I210 GigE LAN
PoE	
LAN 3 to 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210

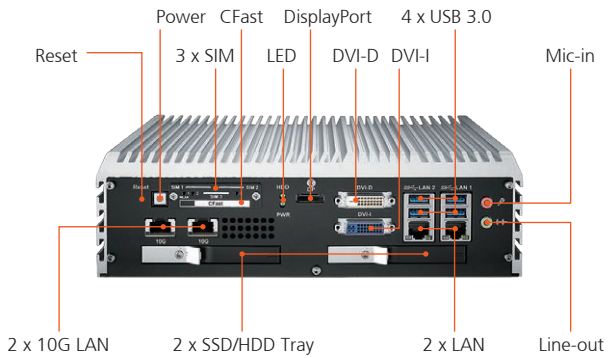
10G Ethernet	
LAN 7	Intel® X550-AT2 10GigE LAN
LAN 8	Intel® X550-AT2 10GigE LAN
Power	
Power Input	6V to 36V, DC-in
Power Interface	<ul style="list-style-type: none"> <li>▪ 3-pin Terminal Block : V+, V-, Frame Ground</li> <li>▪ Mini-DIN 4-pin</li> </ul>
Ignition Control	16 Mode (Internal)
Remote Switch	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 10, Windows 8.1, Windows 7, Linux
Mechanical	
Dimensions	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	3.9 kg (8.60 lb)
Mounting	<ul style="list-style-type: none"> <li>▪ Wallmount by mounting bracket</li> <li>▪ DIN Rail Mount (Optional)</li> <li>▪ 2U Rackmount (Optional)</li> </ul>
Environment	
Operating Temperature	-40°C to 55°C (-40°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 55°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	E13, CE, FCC, EN50155, EN50121-3-2

## Dimensions

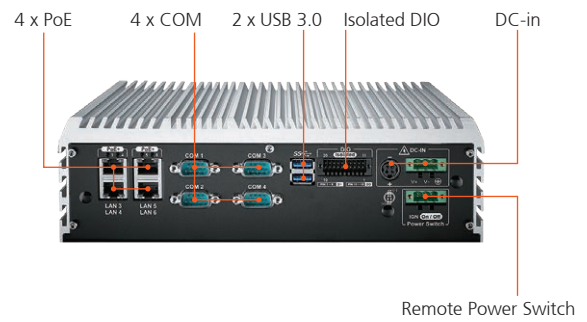
Unit : mm/ inch



## Front I/O



## Rear I/O



## Order Information

<b>ECS-9055R</b>	ECS-9000, 6 GigE LAN with 4 PoE*, 2 10G RJ45, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
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### Accessories

<b>DDR4 32G</b>	Certified DDR4 32GB 2666MHz RAM
<b>DDR4 16G</b>	Certified DDR4 16GB 2400/2133 MHz RAM
<b>DDR4 8G</b>	Certified DDR4 8GB 2400/2133 MHz RAM
<b>DDR4 4G</b>	Certified DDR4 4GB 2400/2133 MHz RAM
<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>PWA-280W-WT</b>	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
<b>VESA Mount</b>	VESA Mounting Kit
<b>DIN-RAIL Kit</b>	DIN Rail and VESA Mounting Kit
<b>Rack Mount</b>	2U Rackmount Kit
<b>TMK2-20P-100</b>	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
<b>TMK2-20P-500</b>	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
<b>TMB-TMBK-20P</b>	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
<b>4G Module</b>	Mini PCIe 4G/GPS Module with Antenna
<b>WiFi &amp; Bluetooth</b>	WiFi & Bluetooth Module with Antenna

### CPU List

Series	CPU	Cache (MB)	Turbo Freq. (GHz)	TDP (W)	ECC Memory
Intel® Xeon®	E3-1275 v6	8	4.2	80	Yes
	E3-1275 v5		4	80	
	E3-1225 v5		3.7	80	
	E3-1268L v5		3.4	35	
Intel® Core™	i7-7700	8	4.2	65	NA
	i7-7700T		3.8	35	
	i7-6700		4	65	
	i7-6700TE		3.4	35	
	i5-7500	6	3.8	65	NA
	i5-7500T		3.3	35	
	i5-6500		3.6	65	
	i5-6500TE	3.3	35		
	i3-7101E	3	3.9	65	Yes
	i3-7101TE		3.4	35	
i3-6100	4	3.7	65		
i3-6100TE		2.7	35		