

# ECS-9000 Series

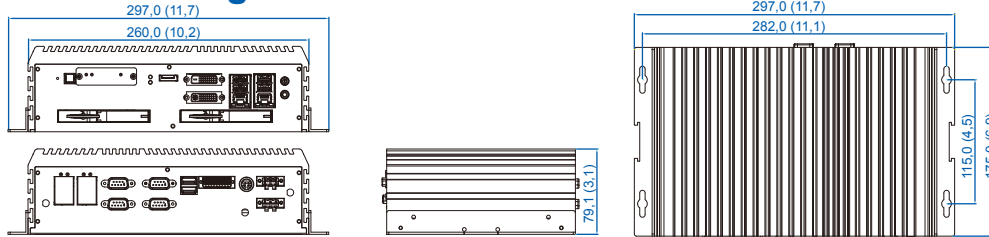
Quad Core 6th Gen Intel® Core™ i7/ i5/ i3 Processor (Skylake-S) Fanless Embedded System with Intel® C236 Chipset, 9 GigE LAN with 4 PoE+, 2 Front-access SSD/ HDD Tray, M2DOM, Isolated DIO, High Performance, Rugged, -40°C to 75°C Extended Temperature.



- LGA 1151 Socket supports Quad Core 6th Gen Intel® Core™ i7/ i5/ i3 Processor (Skylake-S)
- Fanless, -40°C to 75°C Operating Temperature
- 9 Independent GigE LAN with 4 IEEE 802.3at PoE+
- SIM Sockets for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- Front-access : 2 2.5 SSD Tray, 3 SIM, 1 CFast
- 10G LAN/ 10G SFP+ Fiber Connection
- Up to 6 Mini PCIe expansion
- M2DOM supports up to 8GT/s data rate
- 16 Isolated DIO : 8 DI, 8 DO
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



# Dimensions & Drawing Unit: mm (inch)



## Specifications

System		PoE	
<b>Processor</b>	Intel® Core™ i7-6700/ i7-6700TE/ i5-6500/ i5-6500TE/ i3-6100/ i3-6100TE Processor (Skylake-S)	<b>LAN 3</b>	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
<b>Chipset</b>	Intel® C236	<b>LAN 4</b>	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
<b>BIOS</b>	AMI	<b>LAN 5</b>	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
<b>SIO</b>	IT8786E	<b>LAN 6</b>	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
<b>Memory</b>	2 DDR4 2133MHz SO-DIMM, up to 32GB	Fiber	
I/O Interface		<b>LAN 5</b>	1000BASE SFP by Intel® I350
<b>Serial</b>	4 COM RS-232/ 422/ 485	<b>LAN 6</b>	1000BASE SFP by Intel® I350
<b>USB</b>	• 6 USB 3.0 (External) • 1 USB 2.0 (Internal)	Power	
<b>Isolated DIO</b>	16 Isolated DIO : 8 DI, 8 DO (Optional)	<b>Power Input</b>	6V to 36V, DC-in
<b>LED</b>	Power, HDD, PoE	<b>Power Interface</b>	• 3-pin Terminal Block : V+, V-, Frame Ground • Mini-DIN 4-pin
<b>SIM Card</b>	3 SIM Card Socket (External)	<b>Ignition Control</b>	16 Mode (Internal)
Expansion		<b>Remote Switch</b>	3-pin Terminal Block : On, Off, IGN
<b>Mini PCIe</b>	3 Mini PCIe Socket : • 2 Full-size for PCIe/ USB/ External SIM/ mSATA • 1 Half-size for PCIe/ USB 3.0/ External SIM	<b>Surge Protection</b>	Up to 80V/1ms Transient Power
<b>SUMIT A, B</b>	2 SUMIT Slot (Optional)	Others	
Graphics		<b>TPM</b>	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
<b>Processor Interface</b>	Intel® HD Graphics 530 • DVI-I : Up to 1920 x 1200 @ 60Hz • DVI-D : Up to 1920 x 1200 @ 60Hz • DisplayPort : Up to 4096 x 2304 @ 60Hz	<b>Watchdog Timer</b>	Reset : 1 to 255 sec./min. per step
<b>Storage</b>		<b>Smart Management</b>	Wake on LAN, PXE supported
<b>SATA</b>	2 SATA III (6Gbps)	<b>HW Monitor</b>	Monitoring temperature, voltages. Auto throttling control when CPU overheats
<b>mSATA</b>	2 SATA III (Mini PCIe Type, 6Gbps)	Software Support	
<b>SATA DOM</b>	1 SATA II (3Gbps)	<b>OS</b>	Windows 10, Windows 8.1, Windows 7, Linux
<b>M2DOM</b>	1 PCIe 3.0 (8GT/s)/ SATA III (6Gbps)	Mechanical	
<b>Storage Device</b>	• 1 CFast Socket, Push-in/ Push-out Ejector ECS-9000-9R, PoER, 6FR, 4R, 2R : 2 Front-access 2.5" SSD/ HDD Tray ECS-9000-9GD, PoE, 6F, 4G, 2G : 2 2.5" SSD/ HDD Bracket (Internal)	<b>Dimension</b>	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
<b>Audio</b>		<b>Weight</b>	3.8 kg (8.38 lb)
<b>Audio Codec</b>	Realtek ALC892, 5.1 Channel HD Audio	<b>Mounting</b>	• Wallmount by mounting bracket • DIN Rail Mount
<b>Audio Interface</b>	1 Mic-in, 1 Line-out	Environment	
Ethernet		<b>Operating Temp.</b>	• 35W TDP CPU (i7-6700TE, i5-6500TE, i3-6100TE) : -40°C to 75°C (-40°F to 167°F) • 65W TDP CPU (i7-6700, i5-6500, i3-6100) : -40°C to 55°C (-40°F to 131°F)
<b>LAN 1</b>	Intel® I219LM GigE LAN supports iAMT 11.0	<b>Storage Temp.</b>	-40°C to 85°C (-40°F to 185°F)
<b>LAN 2</b>	Intel® I210 GigE LAN	<b>Humidity</b>	5% to 95% Humidity, non-condensing
<b>LAN 3</b>	Intel® 82574L GigE LAN	<b>Relative Humidity</b>	95% @ 70°C
<b>LAN 4</b>	Intel® 82574L GigE LAN	<b>Shock</b>	• IEC 60068-2-27 • SSD : 50G @ wallmount, Half-sine, 11ms
<b>LAN 5</b>	Intel® 82574L GigE LAN	<b>Vibration</b>	• IEC 60068-2-64 • SSD : 5Grms, 5Hz to 500Hz, 3 Axis
		<b>EMC</b>	CE, FCC, EN50155, EN50121-3-2

## Order Information

<b>ECS-9000-9R</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 9 GigE LAN w/4 PoE+, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
<b>ECS-9000-9GD</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 9 GigE LAN w/4 PoE+, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
<b>ECS-9000-PoER</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 6 GigE LAN w/4 PoE+, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
<b>ECS-9000-PoE</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 6 GigE LAN w/4 PoE+, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
<b>ECS-9000-6F</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 6 GigE LAN with 2 SFP, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>ECS-9000-6FR</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 6 GigE LAN with 2 SFP, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>ECS-9000-4G</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 4 GigE LAN, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>ECS-9000-4R</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 4 GigE LAN, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>ECS-9000-2G</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 2 GigE LAN, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>ECS-9000-2R</b>	• ECS-9000, Intel® Core™ i7/ i5/ i3 Processor (Skylake-S), 2 GigE LAN, 2 SSD Tray, 4 COM, 3 SIM, 6 USB 3.0, 16 GPIO
<b>i7-6700</b>	• 6th Gen Intel® Core™ i7-6700 Processor (8M Cache, up to 4.0 GHz)
<b>i7-6700TE</b>	• 6th Gen Intel® Core™ i7-6700TE Processor (8M Cache, up to 3.40 GHz)
<b>i5-6500</b>	• 6th Gen Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz)
<b>i5-6500TE</b>	• 6th Gen Intel® Core™ i5-6500TE Processor (6M Cache, up to 3.30 GHz)
<b>i3-6100</b>	• 6th Gen Intel® Core™ i3-6100 Processor (3M Cache, up to 3.70 GHz)
<b>i3-6100TE</b>	• 6th Gen Intel® Core™ i3-6100TE Processor (4M Cache, up to 2.70 GHz)
<b>DDR4 16G</b>	• Certified DDR4 16GB 2133MHz RAM
<b>DDR4 8G</b>	• Certified DDR4 8GB 2133MHz RAM
<b>DDR4 4G</b>	• Certified DDR4 4GB 2133MHz 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>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>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

ECS-9000-20160831

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