

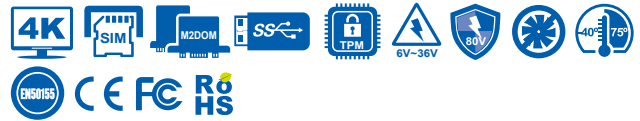
ECS-9110

Quad Core Intel® Core™ i7/ i5/ i3 (Skylake-S) Fanless Embedded System with Intel® C236, 2 GigE LAN, 2 Front-access SSD Tray, 1 PCIe x16, 3 SIM, 8 USB 3.0, M2DOM, M.2 Socket, High Performance, Rugged, -40°C to 75°C Extended Temperature



Features

- LGA 1151 Socket supports Quad Core Intel® Core™ i7/ i5/ i3 Processor (Skylake-S) with C236 Chipset
- DVI-I, DVI-D and DisplayPort display interface, up to 4K displays
- Fanless, -40°C to 75°C Operating Temperature
- 2 Independent GigE LAN, iAMT 11.0 supported
- Expansion : 1 PCIe x16, 3 Mini PCIe/ mSATA, 1 M.2
- PCIe x16 expansion supports up to 160W Power Budget
- Storage : 2 2.5" SSD Tray, 1 CFAST, 1 M2DOM, 2 SATA III
- 3 External SIM Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 8 USB 3.0, 16 GPIO
- 6V to 36V DC Power Input with 80V Surge Protection
- Configurable Ignition Power Control



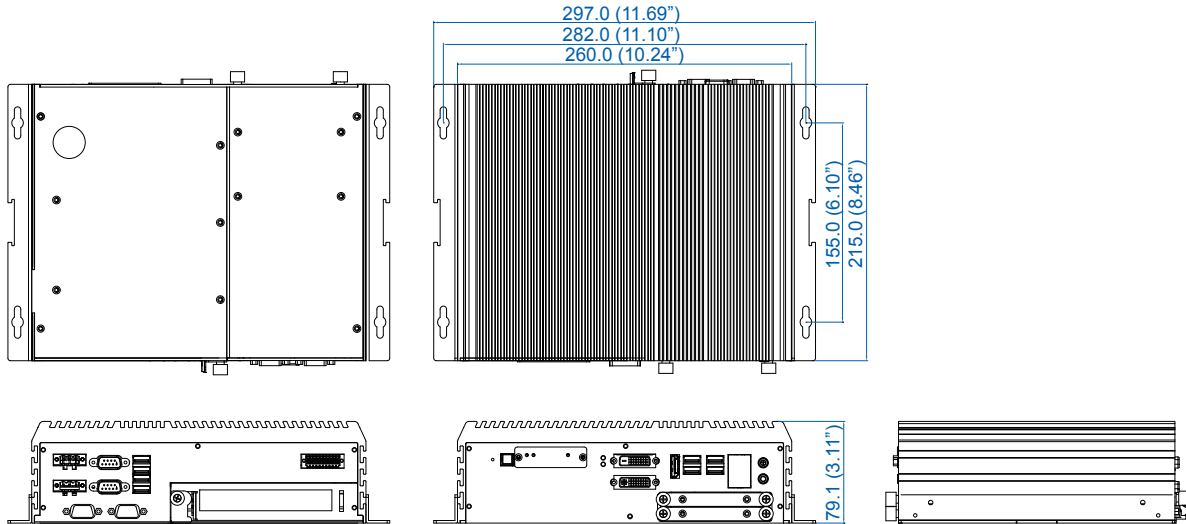
Specifications

System	
Processor	Intel® Core™ i7-6700/ i7-6700TE/ i5-6500/ i5-6500TE/ i3-6100/ i3-6100TE Processor (Skylake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2133MHz SO-DIMM, up to 32GB
I/O Interface	
Serial	4 COM RS-232/ 422/ 485
USB	<ul style="list-style-type: none"> ▪ 8 USB 3.0 (External : 4 Front, 4 Rear) ▪ 1 USB 2.0 (Internal)
GPIO	16 GPIO (External)
LED	Power, HDD, Wireless
SIM Card	3 SIM Card Socket (External)
Expansion	
Mini PCIe	3 Full-size Mini PCIe Socket for PCIe/ USB/ External SIM Card/ mSATA
PCI/ PCIe	1 PCIe x16 Slot (Up to 160W Power Budget)
M.2	1 M.2 Socket (Key ID : M)
Graphics	
Graphics Processor	Intel® HD Graphics 530
Display Memory	Shared Memory, up to 1.7GB
Interface	<ul style="list-style-type: none"> ▪ DVI-I : Up to 1920 x 1200 @ 60Hz ▪ DVI-D : Up to 1920 x 1200 @ 60Hz ▪ DisplayPort : Up to 4096 x 2304 @ 60Hz
Storage	
SATA	2 SATA III (6Gbps) support S/W RAID 0, 1
mSATA	3 SATA III (Mini PCIe Type, 6Gbps)
M2DOM	1 PCIe 3.0 (8GT/s)
Storage Device	<ul style="list-style-type: none"> ▪ 1 CFAST Socket, Push-in/ Push-out Ejector ▪ 2 Front-access 2.5" SSD/ HDD Tray
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

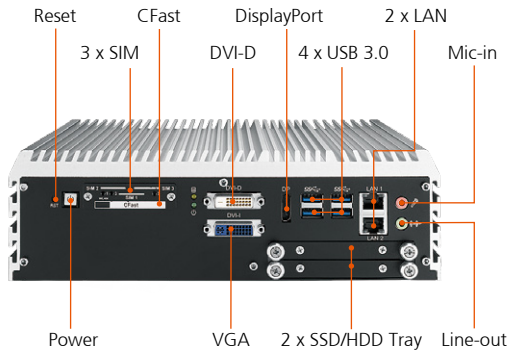
Power	
Power Input	6V to 36V, DC-in
Power Interface	<ul style="list-style-type: none"> ▪ 3-pin Terminal Block : V+, V-, Frame Ground ▪ Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional 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 (W x L x H)	260mm x 215mm x 79mm (10.24" x 8.46" x 3.11")
Weight	3.8 kg (8.38 lb)
Mounting	<ul style="list-style-type: none"> ▪ Wallmount by mounting bracket ▪ Din Rail Mount (Optional) ▪ 2U Rackmount (Optional)
Environment	
Operating Temperature	<ul style="list-style-type: none"> ▪ 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)
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"> ▪ IEC 60068-2-27 ▪ SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	<ul style="list-style-type: none"> ▪ IEC 60068-2-64 ▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis
Certification	CE, FCC, EN50155, EN50121-3-2

Dimensions

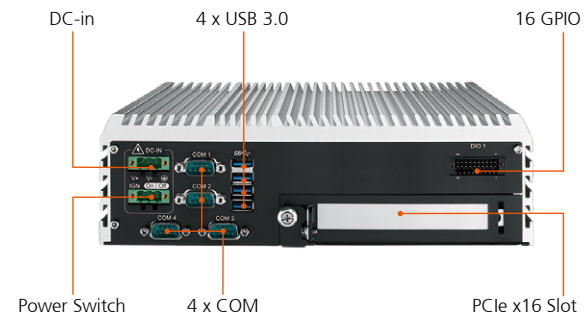
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

ECS-9110	ECS-9100, 2 GigE LAN, 2 Front-access SSD Tray, 1 PCIe x16, 8 USB 3.0, M2DOM, M.2, 3 SIM, 16 GPIO
i7-6700	6th Gen Intel® Core™ i7-6700 Processor (8M Cache, up to 4.00 GHz)
i7-6700TE	6th Gen Intel® Core™ i7-6700TE Processor (8M Cache, up to 3.40 GHz)
i5-6500	6th Gen Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz)
i5-6500TE	6th Gen Intel® Core™ i5-6500TE Processor (6M Cache, up to 3.30 GHz)
i3-6100	6th Gen Intel® Core™ i3-6100 Processor (3M Cache, 3.70 GHz)
i3-6100TE	6th Gen Intel® Core™ i3-6100TE Processor (4M Cache, 2.70 GHz)
DDR4 16G	Certified DDR4 16GB 2133MHz RAM
DDR4 8G	Certified DDR4 8GB 2133MHz RAM
DDR4 4G	Certified DDR4 4GB 2133MHz RAM
PWA-280W-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-120W	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail Kit
Rack Mount	2U Rackmount Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
3G Module	Mini PCIe 3G/GPS Module with Antenna
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth Module	Intel® Mini PCIe WiFi & Bluetooth Module with Antenna