

ECS-9200MXC Series

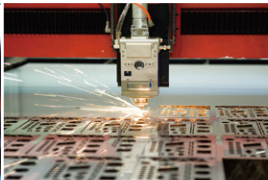
Quad Core Intel® Xeon®/Core™ i7/i5/i3 (Skylake/Kaby Lake) Fanless Embedded System with Intel® C236, 10 GigE LAN w/8 PoE+ (4 X-coded M12), 2 CAN Bus, 2 Front-access SSD Tray, 8 USB 3.0, M2DOM, M.2 Socket, 3 SIM, 32 Isolated DIO, High Performance, Rugged, -40°C to 75°C Extended Temperature



- 10 Independent GigE LAN with 8 IEEE 802.3at PoE+, 4-port X-coded M12
- 2-port CAN Bus, 3 Mini PCIe/mSATA, 1 M.2
- Storage: 2 2.5" SSD Tray, 1 CFast, 1 M2DOM, 2 SATA III
- 6V to 36V DC Power Input with 80V Surge Protection
- Configurable Ignition Power Control
- Fanless, -40°C to 75°C Operating Temperature
- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor (Skylake/Kaby Lake) with C236 chipset
- 32 Isolated DIO, 8 USB 3.0
- 3 External SIM Socket for 3G/4G/LTE/WiFi/GPRS/UMTS



Intelligent Surveillance



Machine Vision



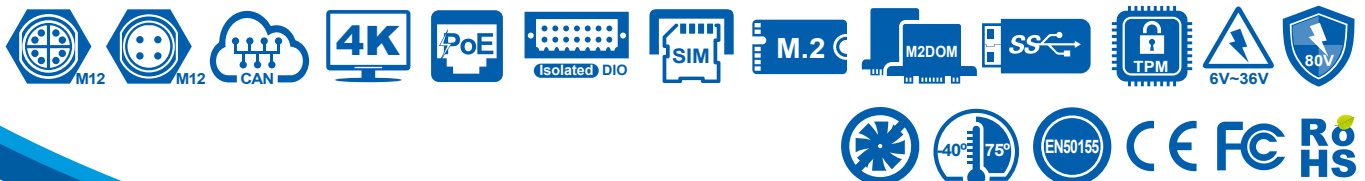
ITS (Intelligent Transportation System)



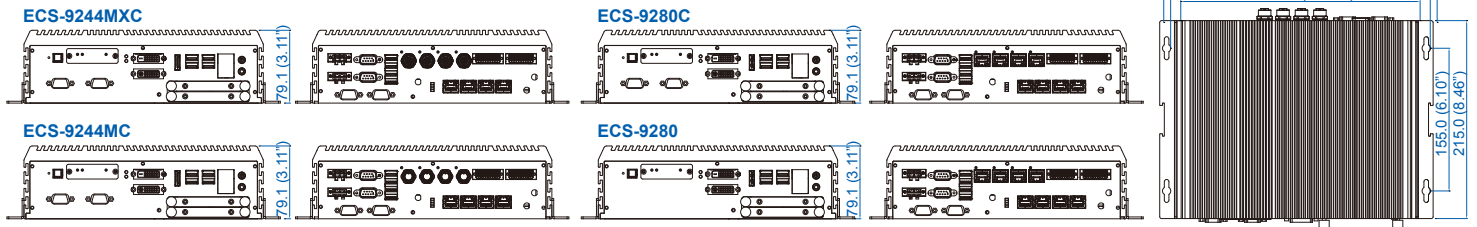
Smart Manufacturing



GPS Navigation



Dimensions & Drawing Unit: mm (inch)



Specifications

System	
Processor	Quad Core Intel® Xeon®/Core™ i7/i5/i3 Processor (Skylake-S/Kaby Lake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2133MHz SO-DIMM, up to 32GB (ECC/Non-ECC)
OS	Windows 10, Windows 8.1, Windows 7, Linux

I/O Interface	
Serial	4 COM RS-232/ 422/ 485 (ESD 8KV)
USB	<ul style="list-style-type: none"> 8 USB 3.0 (4 Front, 4 Rear) 1 USB 2.0 (Internal)
Isolated DIO	32 Isolated DIO : 16 DI, 16 DO
LED	Power, HDD, Wireless, PoE
SIM Card	3 External SIM Card Socket (1 for CAN Bus, Optional)
CAN Bus	2-port CAN 2.0 A/B

Expansion	
Mini PCIe M.2	3 Full-size for PCIe/ USB/ External SIM Card/ mSATA 1 M.2 Socket (Key ID : M)

Graphics	
Processor	Intel® HD Graphics 630/530
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

PoE (X-coded/A-coded M12)	
LAN 3 to LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210 with Power On/Off Control, X-coded/A-coded M12 Connector
LAN 7 to LAN 10	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210 with Power On/Off Control

Power	
Power Input	6V to 36V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block
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.

Mechanical	
Dimensions (WxLxH)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	4.3 kg (9.48 lb)
Mounting	<ul style="list-style-type: none"> Wallmount by mounting bracket DIN Rail Mount (Optional) 2U Rackmount (Optional)

Environment	
Operating Temp.	35W TDP CPU : <ul style="list-style-type: none"> Core™ i7, i5, i3 : -40°C to 75°C (-40°F to 167°F) Xeon® E3-1268L v5 : -40°C to 70°C (-40°F to 158°F) 65W TDP CPU : <ul style="list-style-type: none"> Core™ i7, i5, i3 : -40°C to 55°C (-40°F to 131°F) 80W TDP CPU : <ul style="list-style-type: none"> Xeon® E3-1275 v6, E3-1275 v5, E3-1225 v5 : -40°C to 45°C (-40°F to 113°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 75°C
Shock	<ul style="list-style-type: none"> IEC 60068-2-27 SSD : 50G @ wallmount, Half-sine, 11ms IEC 60068-2-64 SSD : 5Grms, 5Hz to 500Hz, 3 Axis
Vibration	CE, FCC, EN50155, EN50121-3-2
EMC	

Order Information

ECS-9244MXC	• ECS-9200, 10 GigE LAN w/ 4 X-coded M12 PoE+, 4 PoE+, 2 CAN Bus, 2 SSD Tray, 8 USB 3.0, 4 COM, 2 SIM, 32 Isolated DIO
ECS-9244MC	• ECS-9200, 10 GigE LAN w/ 4 A-coded M12 PoE+, 4 PoE+, 2 CAN Bus, 2 SSD Tray, 8 USB 3.0, 4 COM, 2 SIM, 32 Isolated DIO
ECS-9280C	• ECS-9200, 10 GigE LAN w/ 8 PoE+, 2 CAN Bus, 2 SSD Tray, 8 USB 3.0, 4 COM, 2 SIM, 32 Isolated DIO
ECS-9280	• ECS-9200, 10 GigE LAN w/ 8 PoE+, 2 SSD Tray, 8 USB 3.0, 4 COM, 3 SIM, 32 Isolated DIO
i7-7700	• 7th Gen Intel® Core™ i7-7700 Processor (8M Cache, up to 4.20 GHz, 65W)
i7-7700T	• 7th Gen Intel® Core™ i7-7700T Processor (8M Cache, up to 3.80 GHz, 35W)
i5-7500	• 7th Gen Intel® Core™ i5-7500 Processor (6M Cache, up to 3.80 GHz, 65W)
i5-7500T	• 7th Gen Intel® Core™ i5-7500T Processor (6M Cache, up to 3.30 GHz, 35W)
i3-7101E	• 7th Gen Intel® Core™ i3-7101E Processor (3M Cache, up to 3.90 GHz, 65W)
i3-7101TE	• 7th Gen Intel® Core™ i3-7101TE Processor (3M Cache, up to 3.40 GHz, 35W)
E3-1275 v5	• 6th Gen Intel® Xeon® E3-1275 v5 Processor (8M Cache, up to 4.00 GHz, 80W)
E3-1225 v5	• 6th Gen Intel® Xeon® E3-1225 v5 Processor (6M Cache, up to 3.70 GHz, 80W)
E3-1268L v5	• 6th Gen Intel® Xeon® E3-1268L v5 Processor (8M Cache, up to 3.40 GHz, 35W)
i7-6700	• 6th Gen Intel® Core™ i7-6700 Processor (8M Cache, up to 4.00 GHz, 65W)
i7-6700TE	• 6th Gen Intel® Core™ i7-6700TE Processor (8M Cache, up to 3.40 GHz, 35W)
i5-6500	• 6th Gen Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz, 65W)
i5-6500TE	• 6th Gen Intel® Core™ i5-6500TE Processor (6M Cache, up to 3.30 GHz, 35W)
i3-6100	• 6th Gen Intel® Core™ i3-6100 Processor (3M Cache, 3.70 GHz, 65W)
i3-6100TE	• 6th Gen Intel® Core™ i3-6100TE Processor (4M Cache, 2.70 GHz, 35W)
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
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

ECS-9200MXC-20170125