

ECS-9701 RUGGED EMBEDDED COMPUTER

Quad Core 6th Gen Intel® Xeon®/ Core™ i7 Processor (Skylake-H) Fanless Embedded System with Intel® CM236, 6 GigE LAN with 4 PoE+, 2 Front-access SSD Tray, 1 PCI/ PCIe x16 Slot, 4 SIM, 6 USB 3.0, 4 COM, 32 Isolated DIO, High Performance, Rugged, Extended Temperature

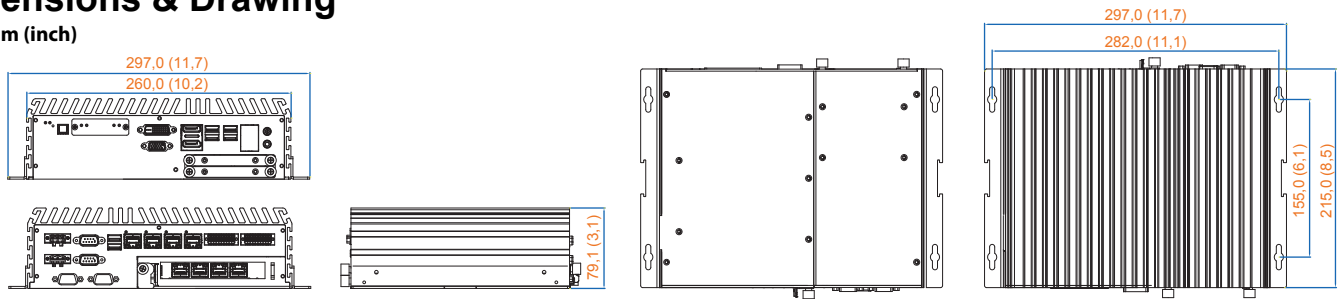


- Quad Core 6th Generation Intel® Xeon®/ Core™ i7 Processor (Skylake-H) with CM236 Chipset
- Onboard VGA, DVI-D and dual DisplayPort display interface, up to 3 independent HD displays
- Fanless, -25°C to 70°C Operating Temperature
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+, iAMT 11.0 supported
- Front-access : 2 2.5" SSD Tray, 3 SIM, 6 USB 3.0, 1 CFast, 4 COM, 32 Isolated DIO
- 4 SIM Card Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 1 PCI/ PCIe x16 Expansion Slot, 4 Mini PCIe/ mSATA
- Optional supports full function SUMIT A, B



Dimensions & Drawing

Unit: mm (inch)



Specifications

System

Processor	Intel® Xeon® E3-1505M v5/ Core™ i7-6820EQ/ i5-6440EQ Processor (Skylake-H)
Chipset	Intel® CM236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2133/ 1866 MHz SO-DIMM, up to 32GB

I/O Interface

Serial	4 COM RS-232/ 422/ 485
USB	• 6 USB 3.0 (External) • 1 USB 2.0 (Internal)
Isolated DIO	ECS-9700 : 32 Isolated DIO : 16 DI, 16 DO ECS-9600 : 16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, PoE
SIM Card	4 SIM Card Socket (3 External, 1 Internal)

Expansion

Mini PCIe	4 Mini PCIe Socket : • 3 Full-size for PCIe/ USB/ External SIM Card/ mSATA • 1 Full-size for PCIe/ Internal SIM Card/ mSATA
PCI/ PCIe	1 PCI/ PCIe x16 Slot
SUMIT A, B	2 SUMIT Slot (Optional)

Graphics

Processor Interface	Intel® HD Graphics P530/ 530
	• VGA : Up to 1920 x 1200 @ 60 Hz • DVI-D : Up to 1920 x 1200 @ 60Hz • DisplayPort 1 : Up to 4096 x 2304 @ 60Hz • DisplayPort 2 : Up to 4096 x 2304 @ 60Hz

Storage

SATA	4 SATA III support S/W RAID 0, 1, 5, 10 : • 3 SATA III (6Gbps) • 1 SATA III co-lay with Mini PCIe (6Gbps)
mSATA	4 mSATA connection : • 3 SATA III (Mini PCIe Type, 6Gbps) • 1 SATA III co-lay with SATA (Mini PCIe Type, 6Gbps)
Storage Device	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 (ECS-9700)

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	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.

Software Support

OS	Windows 10, Windows 8.1, Windows 7, Linux
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Mechanical

Dimensions (WxLxH)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	3.5 kg (7.72 lb)
Mounting	• Wallmount by mounting bracket • 2U Rackmount (Optional)

Environment

Operating Temp.	-25°C to 70°C (-13°F to 158°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% humidity, non-condensing
Relative Humidity	95% at 70°C
Shock	• IEC 60068-2-27 • SSD : 50G @ wallmount, Half-sine, 11ms • IEC 60068-2-64
Vibration	• SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	E13, CE, FCC, EN 50155, EN 50121-3-2

Order Information

ECS-9710-505M	• ECS-9700, Quad Core Intel® Xeon® E3-1505M v5, 6 GigE LAN w/4 PoE*, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
ECS-9710-820Q	• ECS-9700, Quad Core Intel® Core™ i7-6820EQ, 6 GigE LAN w/4 PoE*, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
ECS-9710-440Q	• ECS-9700, Quad Core Intel® Core™ i5-6440EQ, 6 GigE LAN w/4 PoE*, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
ECS-9701-505M	• ECS-9700, Quad Core Intel® Xeon® E3-1505M v5, 6 GigE LAN w/4 PoE*, 2 SSD Tray, 1 PCI, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
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