

# ECS-9755 Series

Quad Core Intel® Xeon®/Core™ i7/i5 Processor (Skylake-H) Embedded System with Intel® CM236, 4-port 10 GigE LAN, 6 GigE LAN with 4 PoE+, 2 SSD Tray, 4 SIM, 6 USB 3.0, 4 COM, 32 Isolated DIO, High Performance, EN50155, EN50121-3-2



10GigE



- Quad Core Intel® Xeon®/Core™ i7/i5 Processor (Skylake-H) with Intel® CM236 chipset
- 2 DDR4 2133MHz Memory, up to 32GB (ECC/Non-ECC)
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- 6V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control
- 4-port 10 GigE LAN, up to 10Gbps data rate
- 4 SIM Card Socket for 3G/4G/LTE/WiFi/GPRS/UMTS
- VGA, DVI-D and 2 DisplayPort interfaces, up to 3 independent HD displays
- 2 2.5" SSD Tray, 6 USB 3.0, 1 CFast, 4 COM
- 32 Isolated DIO, 4 Mini PCIe/mSATA



Robot Control



Vehicle Computing



Machine Vision



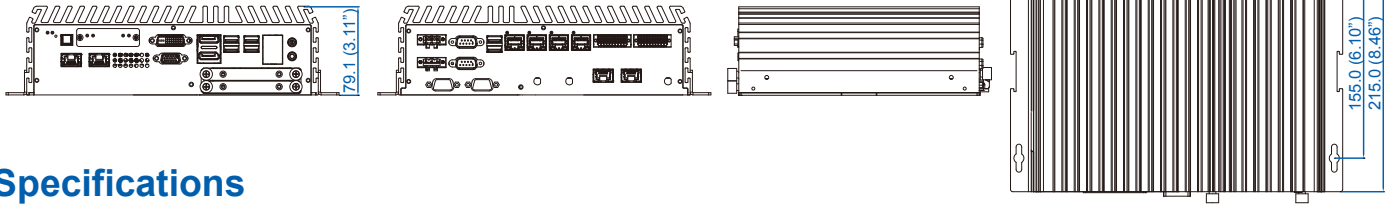
Intelligent Surveillance



Energy Management



# Dimensions & Drawing Unit: mm (inch)



## Specifications

System	
<b>Processor</b>	Intel® Xeon® E3-1505M v5/Core™ i7-6820EQ/i5-6440EQ Processor (Skylake-H)
<b>Chipset</b>	Intel® CM236
<b>BIOS</b>	AMI
<b>SIO</b>	IT8786E
<b>Memory</b>	2 DDR4 2133MHz SO-DIMM, up to 32GB (ECC/Non-ECC)
<b>OS</b>	Windows 10, Windows 8.1, Windows 7, Linux

I/O Interface	
<b>Serial</b>	4 COM RS-232/422/485 (ESD 8KV)
<b>USB</b>	• 6 USB 3.0 (External) • 1 USB 2.0 (Internal)
<b>Isolated DIO</b>	32 Isolated DIO : 16 DI, 16 DO
<b>LED</b>	Power, HDD, PoE, Wireless
<b>SIM Card</b>	4 SIM Card Socket (3 External, 1 Internal)

Expansion	
<b>Mini PCIe</b>	4 Mini PCIe Socket : • 3 Full-size for PCIe/USB/External SIM Card/mSATA • 1 Full-size for PCIe/Internal SIM Card/mSATA

Graphics	
<b>Processor Interface</b>	Intel® HD Graphics P530/530 • VGA : Up to 1920 x1200 @ 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	
<b>SATA</b>	4 SATA III support S/W RAID 0, 1, 5, 10 : • 3 SATA III (6Gbps) • 1 SATA III co-lay with Mini PCIe (6Gbps)
<b>mSATA</b>	4 mSATA connection : • 3 SATA III (Mini PCIe Type, 6Gbps) • 1 SATA III co-lay with SATA (Mini PCIe Type, 6Gbps)
<b>Storage Device</b>	• 1 CFast Socket, Push-in/Push-out Ejector • 2 Front-access 2.5" SSD/HDD Tray

Audio	
<b>Audio Codec</b>	Realtek ALC892, 5.1 Channel HD Audio
<b>Audio Interface</b>	1 Mic-in, 1 Line-out

Ethernet	
<b>LAN 1</b>	Intel® I219LM GigE LAN supports iAMT 11.0
<b>LAN 2</b>	Intel® I210 GigE LAN

PoE	
<b>LAN 3</b>	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210
<b>LAN 4</b>	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210
<b>LAN 5</b>	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210
<b>LAN 6</b>	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210

10G Ethernet	
<b>LAN 7</b>	Intel® X550-AT2 10 GigE LAN
<b>LAN 8</b>	Intel® X550-AT2 10 GigE LAN
<b>LAN 9</b>	Intel® X550-AT2 10 GigE LAN
<b>LAN 10</b>	Intel® X550-AT2 10 GigE LAN

Power	
<b>Power Input</b>	6V to 36V, DC-in
<b>Power Interface</b>	3-pin Terminal Block : V+, V-, Frame Ground
<b>Ignition Control</b>	16 Mode (Internal)
<b>Remote Switch</b>	3-pin Terminal Block
<b>Surge Protection</b>	Up to 80V/1ms Transient Power

Others	
<b>TPM</b>	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
<b>Watchdog Timer</b>	Reset : 1 to 255 sec./min. per step
<b>Smart Management</b>	Wake on LAN, PXE supported
<b>HW Monitor</b>	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical	
<b>Dimensions (WxLxH)</b>	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
<b>Weight</b>	4.0 kg (8.82 lb)
<b>Mounting</b>	• Wallmount by mounting bracket • DIN Rail Mount (Optional) • 2U Rackmount (Optional)

Environment	
<b>Operating Temp.</b>	-40°C to 55°C (-40°F to 131°F)
<b>Storage Temp.</b>	-40°C to 85°C (-40°F to 185°F)
<b>Humidity</b>	5% to 95% Humidity, non-condensing
<b>Relative Humidity</b>	95% @ 55°C
<b>Shock</b>	• IEC 60068-2-27 • SSD : 50G @ wallmount, Half-sine, 11ms • IEC 60068-2-64
<b>Vibration</b>	• SSD : 5Grms, 5Hz to 500Hz, 3 Axis
<b>EMC</b>	CE, FCC, EN50155, EN50121-3-2

## Order Information

<b>ECS-9755-505M</b>	• ECS-9700, Quad Core Intel® Xeon® E3-1505M v5, 6 GigE LAN w/4 PoE*, 4 10G RJ45, 2 SSD Tray, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
<b>ECS-9755-820Q</b>	• ECS-9700, Quad Core Intel® Core™ i7-6820EQ, 6 GigE LAN w/4 PoE*, 4 10G RJ45, 2 SSD Tray, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
<b>ECS-9755-440Q</b>	• ECS-9700, Quad Core Intel® Core™ i5-6440EQ, 6 GigE LAN w/4 PoE*, 4 10G RJ45, 2 SSD Tray, 6 USB 3.0, 4 COM, 4 SIM, 32 Isolated DIO
<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-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>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>VESA Mount</b>	• VESA Mounting Kit
<b>DIN-RAIL</b>	• DIN Rail 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>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