

ECS-9610

Quad Core Intel® Xeon®/ Core™ i7/ i5 (Skylake-H) Fanless Embedded System with Intel® CM236, 2 GigE LAN, 2 Front-access SSD Tray, 1 PCIe x16, 4 SIM, 6 USB 3.0, 16 Isolated DIO, High Performance, Rugged, Extended Temperature



Features

- Quad Core Intel® Xeon®/ Core™ i7/ i5 Processor (Skylake-H) with CM236 Chipset supports up to 4K displays
- Fanless, -25°C to 70°C Operating Temperature
- 2 Independent GigE LAN, iAMT 11.0 supported
- 1 PCIe x16 Expansion Slot, 4 Mini PCIe/ mSATA
- Front-access : 2 2.5" SSD Tray, 3 SIM Socket, 4 USB 3.0
- 4 SIM Card Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 6V to 36V DC Power Input with 80V Surge Protection
- Configurable Ignition Power Control
- 16 Isolated DIO, 6 USB 3.0, 4 COM
- Optional supports full function SUMIT A, B



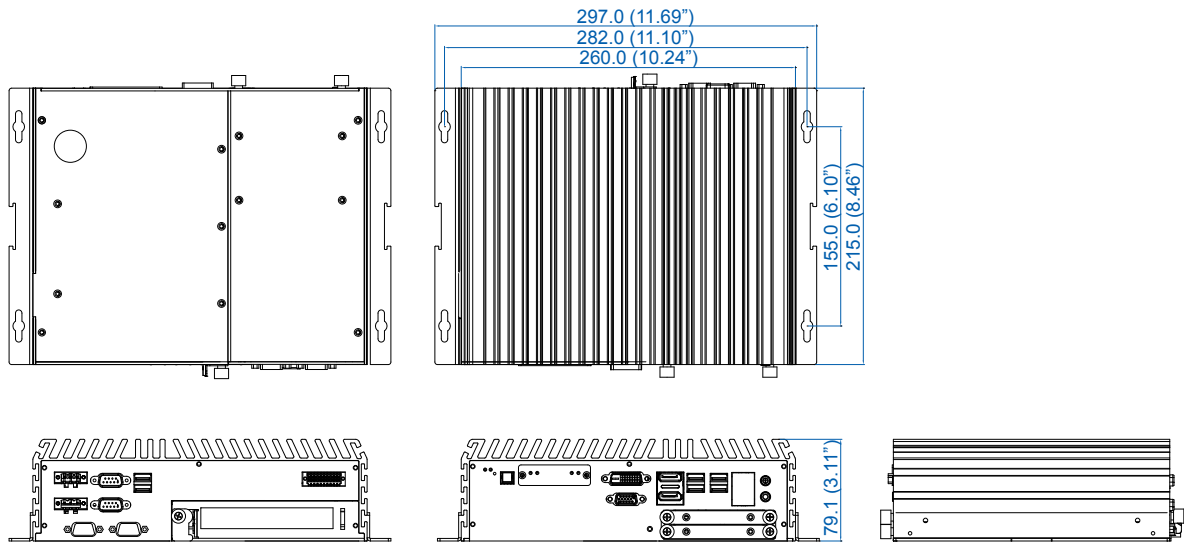
Specifications

| 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 2133MHz SO-DIMM, up to 32GB |
| I/O Interface | |
| Serial | 4 COM RS-232/ 422/ 485 |
| USB | <ul style="list-style-type: none"> ▪ 6 USB 3.0 (External : 4 Front, 4 Rear) ▪ 1 USB 2.0 (Internal) |
| Isolated DIO | 16 Isolated DIO : 8 DI, 8 DO |
| LED | Power, HDD, Wireless |
| SIM Card | 4 SIM Card Socket (3 External, 1 Internal) |
| Expansion | |
| Mini PCIe | 4 Mini PCIe Socket : <ul style="list-style-type: none"> ▪ 3 Full-size for PCIe/ USB/ External SIM Card/ mSATA ▪ 1 Full-size for PCIe/ Internal SIM Card/ mSATA |
| PCI/ PCIe | 1 PCIe x16 Slot |
| SUMIT A, B | 2 SUMIT Slot (Optional) |
| Graphics | |
| Graphics Processor | Intel® HD Graphics P530/ 530 |
| Interface | <ul style="list-style-type: none"> ▪ VGA : Up to 1920 x 1200 @ 60Hz ▪ 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 Software RAID 0, 1, 5, 10 : <ul style="list-style-type: none"> ▪ 3 SATA III (6Gbps) ▪ 1 SATA III Co-Lay with SATA (Mini PCIe Type, 6Gbps) |
| mSATA | 4 mSATA : <ul style="list-style-type: none"> ▪ 3 SATA III (Mini PCIe Type, 6Gbps) ▪ 1 SATA III Co-Lay with SATA (Mini PCIe Type, 6Gbps) |
| 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 |

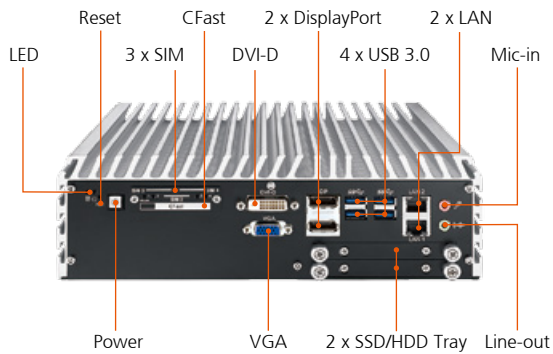
| Power | |
|-------------------------------|---|
| Power Input | 6V to 36V, DC-in |
| Power Interface | 3-pin Terminal Block : V+, V-, Frame Ground |
| Ignition Control | 16 Mode (Internal) |
| Remote Switch | 3-pin Terminal Block : On, Off, IGN |
| Surge Protection | Up to 80V/1ms Transient Power |
| 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 | 3.5 kg (7.72 lb) |
| Mounting | <ul style="list-style-type: none"> ▪ Wallmount by mounting bracket ▪ Din Rail Mount (Optional) ▪ 2U Rackmount (Optional) |
| Environment | |
| Operating Temperature | -25°C to 70°C (-13°F to 158°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

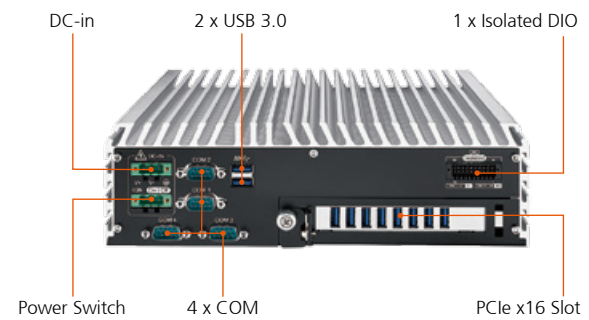
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

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|------------------------------------|--|
| ECS-9610-505M | ECS-9600, Quad Core Intel® Xeon® E3-1505M v5, 2 GigE LAN, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 16 Isolated DIO |
| IVH-9610-820Q | ECS-9600, Quad Core Intel® Core™ i7-6820EQ, 2 GigE LAN, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 16 Isolated DIO |
| IVH-9610-440Q | ECS-9600, Quad Core Intel® Core™ i5-6440EQ, 2 GigE LAN, 2 SSD Tray, 1 PCIe x16, 6 USB 3.0, 4 COM, 4 SIM, 16 Isolated DIO |
| 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 |