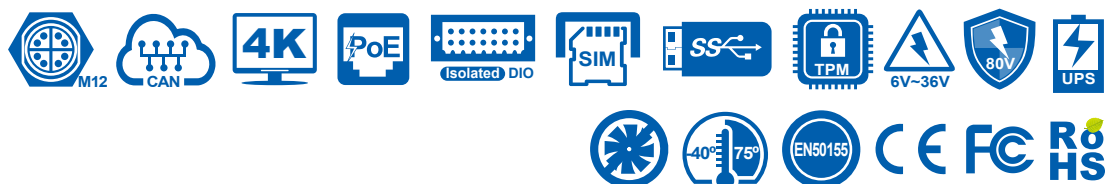


# IVH-9200MXC Series

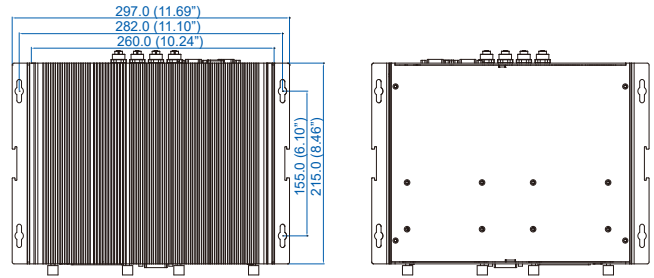
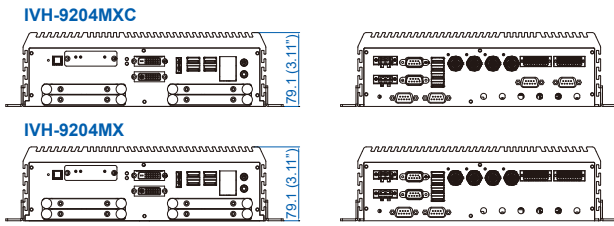
7th Generation Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake) In-Vehicle Fanless Embedded System with Intel® C236, 6 GigE LAN w/4 X-coded M12 PoE+, 2 CAN Bus, 4 Front-access SSD Tray, 8 USB 3.0, 3 SIM, 32 Isolated DIO, High Performance, Rugged, -40°C to 75°C Extended Temperature



- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake/Skylake) with C236 chipset
- 2 DDR4 2133MHz SO-DIMM, up to 32GB (ECC/Non-ECC)
- DVI-I, DVI-D & DisplayPort interfaces, up to 4K display
- 6V to 36V DC Power Input with 80V Surge Protection
- 32 Isolated DIO, Configurable Ignition Power Control
- 6 Independent GigE LAN with 4 X-coded M12 IEEE 802.3at PoE+
- Fanless, -40°C to 75°C Extended Temperature
- 2-port CAN Bus, 8 USB 3.0, 4 COM, 3 Mini PCIe
- 4 Front-access SSD Tray, 1 CFast, 4 SATA III
- 3 External SIM Socket for 3G/4G/LTE/WiFi/GPRS/UMTS
- UPS supported (Optional)



# Dimensions & Drawing Unit: mm (inch)



## Specifications

### System

<b>Processor</b>	Quad Core Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake-S/Skylake-S)
<b>Chipset</b>	Intel® C236
<b>BIOS</b>	AMI
<b>SIO</b>	IT8786E
<b>Memory</b>	2 DDR4 2400/2133 MHz SO-DIMM, up to 64GB (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>	<ul style="list-style-type: none"> <li>• 8 USB 3.0 (4 Front, 4 Rear)</li> <li>• 1 USB 2.0 (Internal)</li> </ul>
<b>Isolated DIO</b>	32 Isolated DIO : 16 DI, 16 DO
<b>LED</b>	Power, HDD, Wireless, PoE
<b>SIM Card</b>	3 External SIM Card Socket (1 for CAN Bus, Optional)
<b>CAN Bus</b>	2-port CAN 2.0 A/B

### Expansion

<b>Mini PCIe</b>	3 Full-size for PCIe/USB/External SIM Card/mSATA
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### Graphics

<b>Processor Interface</b>	Intel® HD Graphics P630/630/P530/530
	<ul style="list-style-type: none"> <li>• DVI-I : Up to 1920 x 1200 @ 60Hz</li> <li>• DVI-D : Up to 1920 x 1200 @ 60Hz</li> <li>• DisplayPort : Up to 4096 x 2304 @ 60Hz</li> </ul>

### Storage

<b>SATA</b>	4 SATA III (6Gbps) support S/W RAID 0, 1, 5, 10
<b>mSATA</b>	3 SATA III (Mini PCIe Type, 6Gbps, Optional)
<b>Storage Device</b>	<ul style="list-style-type: none"> <li>• 1 CFAST Socket, Push-in/Push-out Ejector</li> <li>• 4 Front-access 2.5" SSD/HDD Tray</li> </ul>

### Audio

<b>Audio Codec</b>	Realtek ALC888S-VD, 7.1 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 (X-coded M12)

<b>LAN 3 to LAN 6</b>	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210 with Power On/Off Control
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### 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</b>	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
<b>Weight</b>	4.5 kg (9.92 lb)
<b>Mounting</b>	<ul style="list-style-type: none"> <li>• Wallmount by mounting bracket</li> <li>• DIN Rail Mount (Optional)</li> <li>• 2U Rackmount (Optional)</li> </ul>

### Environment

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

## Order Information

<b>IVH-9204MXC</b>	• IVH-9200, 6 GigE LAN w/ 4 X-coded M12 PoE+, 2 CAN Bus, 4 SSD Tray, 8 USB 3.0, 4 COM, 2 SIM, 32 Isolated DIO
<b>IVH-9204MX</b>	• IVH-9200, 6 GigE LAN w/ 4 X-coded M12 PoE+, 4 SSD Tray, 8 USB 3.0, 4 COM, 3 SIM, 32 Isolated DIO
<b>E3-1275 v6</b>	• 7th Gen Intel® Xeon® E3-1275 v6 Processor (8M Cache, up to 4.20 GHz, 80W)
<b>i7-7700</b>	• 7th Gen Intel® Core™ i7-7700 Processor (8M Cache, up to 4.20 GHz, 65W)
<b>i7-7700T</b>	• 7th Gen Intel® Core™ i7-7700T Processor (8M Cache, up to 3.80 GHz, 35W)
<b>i5-7500</b>	• 7th Gen Intel® Core™ i5-7500 Processor (6M Cache, up to 3.80 GHz, 65W)
<b>i5-7500T</b>	• 7th Gen Intel® Core™ i5-7500T Processor (6M Cache, up to 3.30 GHz, 35W)
<b>i3-7101E</b>	• 7th Gen Intel® Core™ i3-7101E Processor (3M Cache, up to 3.90 GHz, 65W)
<b>i3-7101TE</b>	• 7th Gen Intel® Core™ i3-7101TE Processor (3M Cache, up to 3.40 GHz, 35W)
<b>E3-1275 v5</b>	• 6th Gen Intel® Xeon® E3-1275 v5 Processor (8M Cache, up to 4.00 GHz, 80W)
<b>E3-1225 v5</b>	• 6th Gen Intel® Xeon® E3-1225 v5 Processor (6M Cache, up to 3.70 GHz, 80W)
<b>E3-1268L v5</b>	• 6th Gen Intel® Xeon® E3-1268L v5 Processor (8M Cache, up to 3.40 GHz, 35W)
<b>i7-6700</b>	• 6th Gen Intel® Core™ i7-6700 Processor (8M Cache, up to 4.00 GHz, 65W)
<b>i7-6700TE</b>	• 6th Gen Intel® Core™ i7-6700TE Processor (8M Cache, up to 3.40 GHz, 35W)
<b>i5-6500</b>	• 6th Gen Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz, 65W)
<b>i5-6500TE</b>	• 6th Gen Intel® Core™ i5-6500TE Processor (6M Cache, up to 3.30 GHz, 35W)
<b>i3-6100</b>	• 6th Gen Intel® Core™ i3-6100 Processor (3M Cache, 3.70 GHz, 65W)
<b>i3-6100TE</b>	• 6th Gen Intel® Core™ i3-6100TE Processor (4M Cache, 2.70 GHz, 35W)
<b>DDR4 32G</b>	• Certified DDR4 32GB 2666MHz RAM
<b>DDR4 16G</b>	• Certified DDR4 16GB 2400/2133 MHz RAM
<b>DDR4 8G</b>	• Certified DDR4 8GB 2400/2133 MHz RAM
<b>DDR4 4G</b>	• Certified DDR4 4GB 2400/2133 MHz 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 Kit</b>	• DIN Rail and VESA Mounting 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>4G Module</b>	• Mini PCIe 4G/GPS Module with Antenna
<b>WiFi &amp; Bluetooth</b>	• WiFi & Bluetooth Module with Antenna

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