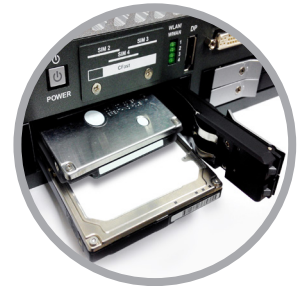


IVH-7700-QRD

High Performance, Rugged, Extended Temp., Intel® Quad Core™ i7/i5/i3 Processor
Fanless In-Vehicle System with 4 Gigabit PoE+ Ports and 4 Front-access SSDs



- Intel® Quad Core™ i7/i5/i3 Processor
- Fanless, -25°C to 70°C Operating Temperature
- 4 GbE POE+ Ports and 2 GbE LAN Ports
- 4 Mini PCIe Slots
- 4 SIM Card Sockets (3 External)
- 4 Front-access 2.5" HDD / SSD Trays
- 4 USB 3.0 with Independent Controllers
- Configurable Ignition Power Control
- Supports M12 Connectors
- Internal UPS, 6V to 78V DC-IN



Traffic Safety System



ITS (Intelligent Transportation System)



Fleet Management



In-Vehicle Surveillance

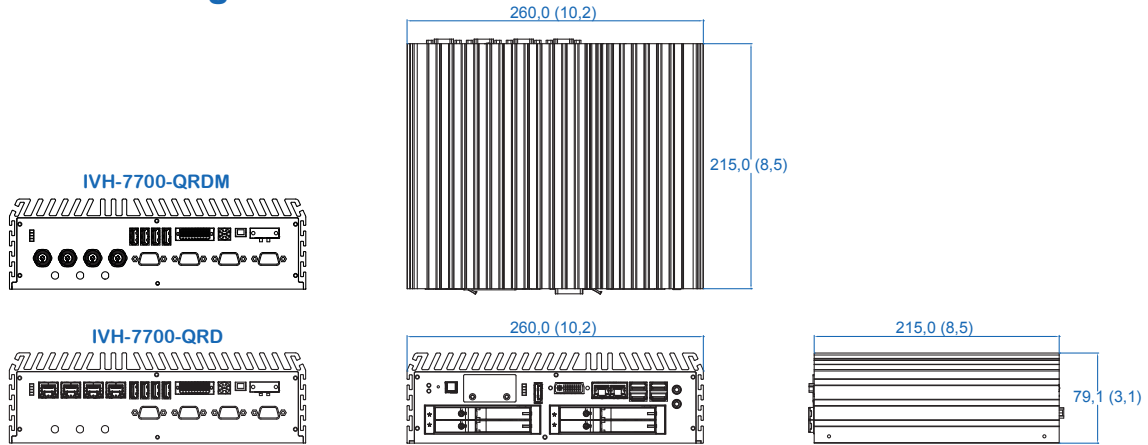


Mobile NVR



Dimensions & Drawing

Unit: mm (inch)



Specifications

System

Processor	• 3 rd Gen Intel® Quad Core™ i7/i5/i3 Processor
Chipset	• Intel® QM77
BIOS	• AMI
SIO	• IT8783
Memory	• DDR3 1066/1333/1600 MHz or DDR3L 1066/1333MHz • Up to 16GB • 2 204-pin SO-DIMM Sockets

I/O Interface

Serial	• 2 COM RS-232, 2 COM RS-232/485/422
USB	• Front : 4 USB 3.0 • Rear : 4 USB 3.0 (4 Independent Controllers) • 1 Internal USB 2.0 (Right Angle USB Connector) • 2 Internal USB 2.0 (6-pin JST)
Isolated DIO	• 16 Isolated DIO (8 DI, 8 DO, Up to 40V Input)
LED	• Power/Suspend, SSD/CFast, WLAN/WWAN
SIM Card Socket	• 4 SIM Card Sockets (3 External, 1 Internal)
GPIO	• 16 GPIO

Expansion

Mini PCIe	• 1 Mini PCIe Socket (PCIe + USB + Internal SIM), optional with mSATA • 3 Mini PCIe Socket (PCIe + USB + External SIM)
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Graphics

Chipset	• Intel® HD 4000, Triple Independent Display
Display Memory	• Shared Memory, up to 1.7GB
Interface	• DVI-D : Up to 1920 x 1200 • DisplayPort : Up to 2560 x 1600 • LVDS : Dual channel 24-bit, up to 1920 x 1200

Storage

SATA	• 2 SATA III (6Gbps) • 2 SATA II (3Gbps)
mSATA	• 1 SATA II (3Gbps)
Storage	• CFast Slot, Push In/ Push Out Ejector
Expansion	• 4 Front-access 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® 82579LM Gigabit LAN supports iAMT 8.0
LAN 2	• Intel® I210 Gigabit LAN

PoE

LAN 3	• Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 4	• Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 5	• Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 6	• Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210 • M12 Connectors (IVH-7700-QRDM)

Power

Input Voltage	• DC-IN 6V to 78V
Power Input	• 3-pin Terminal Block : V+, V-, IGN • DC-IN M12 Connector (Optional)
Ignition Control	• 16 Modes
Remote Switch	• 2-pin Terminal Block
Surge Protection	• Up to 200V/1ms Transient Power
Internal Battery	• Internal UPS (Optional)

Others

TPM	• Trusted Platform Module, Infineon SLB9635, LPC interface (Optional)
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
GPS	• Onboard GPS Module (Optional)

Software Support

Microsoft	• Windows 8, Windows 7, Windows XP
Linux	• Fedora 13, Ubuntu 10.04 LTS, or Linux Kernel 3.0 above

Mechanical

Dimension	• 260mmx215mm x79mm (10.2"x 8.5"x 3.1") (W x L x H)
Weight	• 2.1 kg (4.6 lb)
Mounting	• Wallmount by mounting bracket

Environment

Operating Temp.	• -25°C to 70°C (-13°F to 157°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
Vibration	• IEC 60068-2-64 • SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	• CE/FCC/EN 50155 & EN 50121-3-2

Order Information

IVH-7700-QRD	• Intel® Quad Core™ In-Vehicle Fanless Embedded System with 6 Gigabit Ports (4 PoE+) and 4 Front-access SSD/HDD Trays
IVH-7700-QRDM	• Intel® Quad Core™ In-Vehicle Fanless Embedded System with 6 Gigabit Ports (4 PoE+ with M12 Connectors) and 4 Front-Access SSD/HDD Trays
i7-3610QE	• Ivy Bridge 3 rd Gen Intel® Mobile Quad-Core™ i7 Processor
i5-3610ME	• Ivy Bridge 3 rd Gen Intel® Mobile Core™ i5 Processor
i3-3120ME	• Ivy Bridge 3 rd Gen Intel® Mobile Core™ i3 Processor
M340S-W28M1	• Vecow DDR3 4GB 1333/1066 MHz RAM, Wide Temperature -40°C to +85°C
Certified DDR3 4GB RAM	• Certified DDR3 4GB RAM
PWA-160W-WT	• 160W, 24V, 85VAC to 264VAC Industrial Power Adapter, Wide Temperature -30°C to +70°C
PWA-120W	• 120W, 24V, 90VAC to 264VAC Power Adaptor, Terminal Block