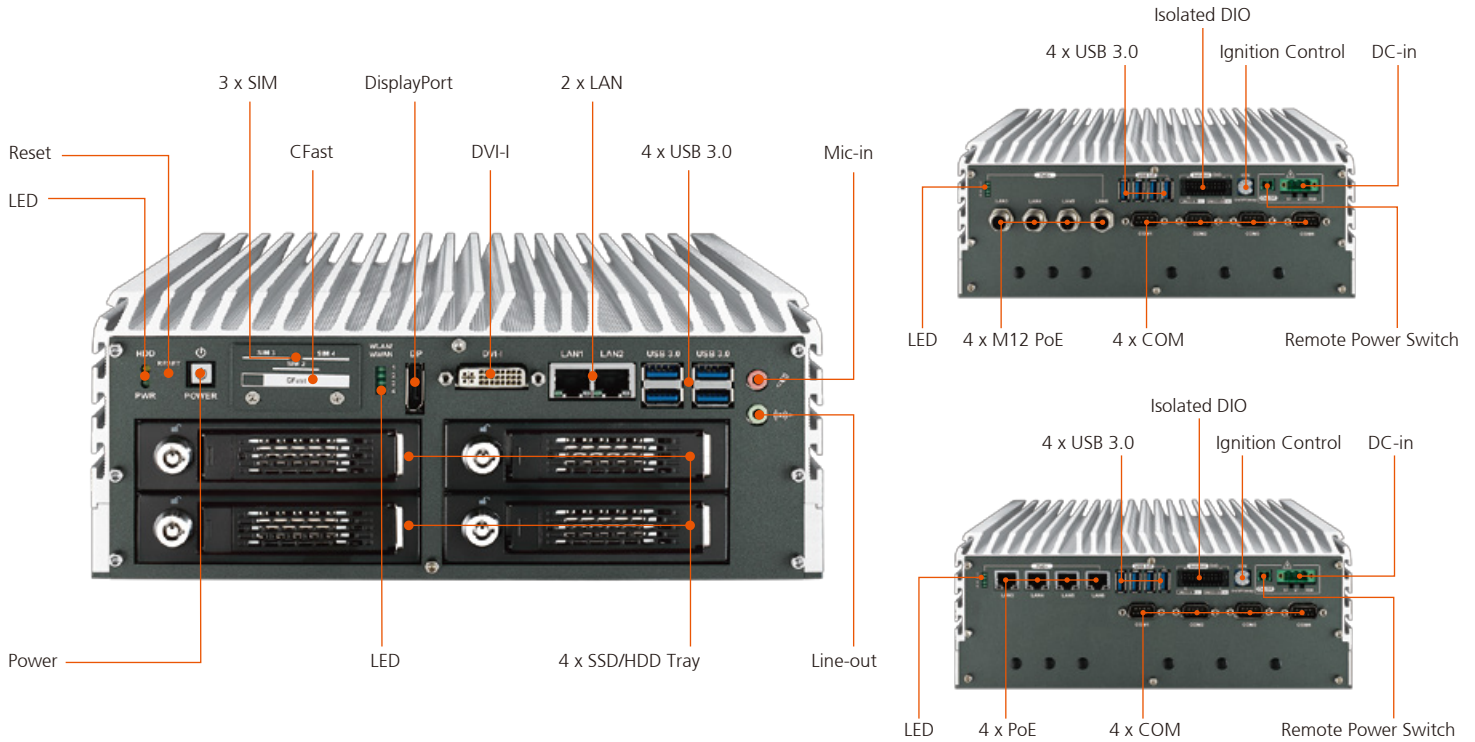
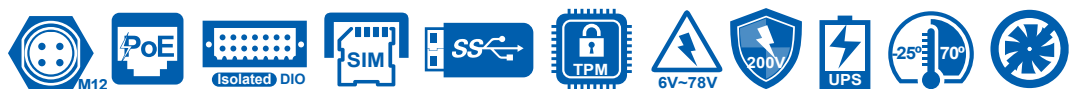


IVH-7700-QRD ICY

Quad Core Intel® Core™ i7/ i5/ i3 Fanless In-Vehicle Embedded System with Intel® QM77, 6 GigE LAN with 4 M12 PoE+, 4 Front-access 15mm HDD/ SSD Tray, Isolated DIO, High Performance, Rugged, Extended Temperature

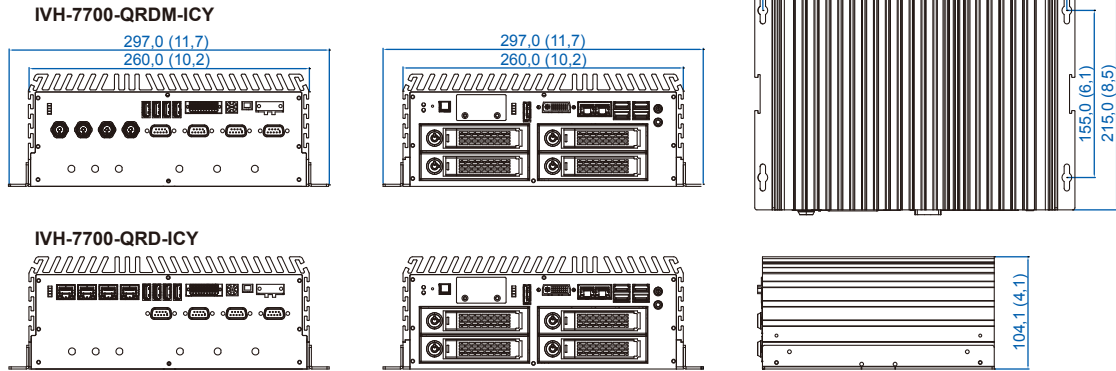


- Quad Core Intel® Core™ i7/ i5/ i3 Processor
- Fanless, -25°C to 70°C Operating Temperature
- 6 GigE LAN with 4 M12 IEEE 802.3at PoE+
- 4 Mini PCIe, 4 SIM Card Socket (3 External)
- Supports 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 4 Front-access 2.5" HDD/ SSD Tray (15mm in height)
- 4 Independent USB 3.0, 16 Isolated DIO, 16 GPIO
- Configurable Ignition Power Control
- 6V to 78V DC-in, 200V Surge Protection
- UPS Supported (Optional)



Dimensions & Drawing

Unit: mm (inch)



Specifications

System

Processor	Quad Core 3 rd Gen Intel® Core™ i7/ i5/ i3 Processor
Chipset	Intel® QM77
BIOS	AMI
SIO	IT8783
Memory	<ul style="list-style-type: none"> • DDR3 1066/1333/1600 MHz or DDR3L 1066/1333MHz • Up to 16GB • 2 204-pin SO-DIMM Socket

I/O Interface

Serial	2 COM RS-232, 2 COM RS-232/422/485
USB	<ul style="list-style-type: none"> • Front : 4 USB 3.0 • Rear : 4 USB 3.0 (Independent Controller) • 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)
LED	Power, HDD, Wireless, PoE
SIM Card	4 SIM Card Socket (3 External, 1 Internal)
GPIO	16 GPIO

Expansion

Mini PCIe	<ul style="list-style-type: none"> • 1 Mini PCIe Socket for PCIe/ USB/ Internal SIM Card/ Optional mSATA • 3 Mini PCIe Socket for PCIe/ USB/ External SIM Card
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Graphics

Chipset	Intel® HD 4000, Triple Independent Display
Display Memory	Shared Memory, up to 1.7GB
Interface	<ul style="list-style-type: none"> • DVI-I : Up to 1920 x 1200 • DisplayPort : Up to 2560 x 1600 • LVDS : Dual channel 24-bit, up to 1920 x 1200

Storage

SATA	<ul style="list-style-type: none"> • 2 SATA III (6Gbps) • 2 SATA II (3Gbps)
mSATA	1 SATA II (3Gbps)
Storage Device	<ul style="list-style-type: none"> • 1 CFast Socket, Push-in/ Push-out Ejector • 4 Front-access 2.5" HDD/ SSD Tray (15mm in height)

Audio

Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® 82579LM GigE LAN supports iAMT 8.0
LAN 2	Intel® I210 GigE LAN

PoE (M12)

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
	• M12 Connector (IVH-7700-QRDM-ICY)

Power

Input Voltage	DC-in 6V to 78V
Power Input	<ul style="list-style-type: none"> • 3-pin Terminal Block : V+, V-, IGN • DC-in M12 Connector (Optional)
Ignition Control	16 Mode
Remote Switch	2-pin Terminal Block
Surge Protection	Up to 200V/1ms Transient Power Supported (Optional)
UPS	Supported (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

Dimensions	260mm x215mm x104.1mm (10.2"x 8.5"x 4.1") (WxLxH)
Weight	5.5 kg (12.13 lb)
Mounting	Wallmount by mounting bracket

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	<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
EMC	CE, FCC, EN50155, EN50121-3-2

Order Information

IVH-7700-QRD-ICY	• IVH-7700, 6 GigE LAN, 4 Front-access 15mm HDD/SSD Tray, 4 COM, 11 USB, 4 COM, 4 SIM, Isolated DIO, 16 GPIO
IVH-7700-QRDM-ICY	• IVH-7700, 6 GigE LAN with 4 M12 PoE+, 4 Front-access 15mm HDD/SSD Tray, 4 COM, 11 USB, 4 SIM, Isolated DIO, 16 GPIO
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 8GB RAM	• Certified DDR3 8GB RAM
Certified DDR3 4GB RAM	• Certified DDR3 4GB RAM
PWA-160W-WT	• 160W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-120W	• 120W, 24V, 90V AC to 264V AC Power Adaptor with 3-pin Terminal Block
TMBK-20P-100	• Terminal Block 20-pin to SCSI Cable, 100cm
TMBK-20P-500	• Terminal Block 20-pin to SCSI Cable, 500cm
TMB-SCSI-20P	• Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting

IVH-7700-QRD ICY-20160810