Vecow

■ Specification

Unit: mm (inch)

System

Processor	3rd Generation Intel® Quad Core™ i7 | i5 | i3 Ivy Bridge Processors (6M Cache, up to 3.30 GHz)
Chipset	Intel® Mobile QM77
BIOS	AMI
SIO	IT8783F
Memory	DDR3 1066 | 1333 | 1600 MHz, DDR3L 1066 | 1333 MHz, h16GB Max., 2 204-pin SO-DIMM Sockets

I/O Port

Serial Interface	3 COM RS-232, 1 COM RS-232 | 485 | 422
USB	4 USB 3.0, 2 USB 2.0, 2 Internal USB 2.0
Isolated DIO	8 DI, 8 DO (Optional)
LED	Power, HDD and CFast LEDs
GPIO	16 GPIO

Expansion

Mini PCIe	1 miniPCIe Socket: PCIe + USB + SIM Card Socket, 1 miniPCIe Socket: PCIe + USB
SUMIT A, B	2 SUMIT Slots (Optional)
JST Connector	1 Internal 6-pin (Internal USB 2.0)

Graphics

Chipset	Intel® GMA HD 4000
Display Memory	Shared Memory, Up to 1.7GB
Interface	DB-15 VGA | 1920 x 1200 Max., DVI-D | 1920 x 1200 Max., Display Port 1 | 2560 x 1600 Max. Display Port 2 | 1920 x 1200 Max., LVDS | Dual Channel 24-bit | 1920 x 1200 Max.

Storage

SATA	2 SATA III 6Gbps, 1 SATA II 3Gbps - Support Horizontal Type SATA DOM
mSATA	2 SATA II 3Gbps
Storage Expansion	CFast Slot Push In | Out Ejector

Audio

Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	Line-In, Line-Out, Mic-In, Front Audio Header

Ethernet

LAN1	Intel® 82579LM Gigabit LAN, Wake on LAN, PXE Support
LAN2	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN3	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN4	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN5	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN6	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN7	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN8	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN9	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support

Power

Power Input	1 Mini DIN, One 3-pin Terminal Block for DC-IN : V+, V-, Frame Ground
Power Input Voltage	DC-IN 6 ~ 36V
Power Adapter	AC to DC +24V / 5A 120W Max. (Optional)
Protection	On-Board LT4356 for Power Input High Voltage Surge Protection

Other

Trusted Platform Module (TPM)	Infineon SLB9635, LPC Interface (Optional)
Watchdog Timer	Reset: 1 to 255 sec. / min. Per Step
HW Monitor	Temperature | Voltages Auto Throttling Control When CPU Overheats

Mechanical

Chassis Construction	Aluminum Housing
Size(W x D x H)	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	2.8Kg (6 lb)
Mounting	Wall-Mount by Mounting Bracket

Environment

Operating Temperature	-25°C to 70°C (-13°F to 157°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 70°C
Vibration	Random: 5Grms @5~500 Hz according to IEC68-2-64
	Sinusoidal: 5Grms @5~500 Hz according to IEC68-2-64
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w / SSD, According to IEC60068-2-27)
EMC	CE, FCC, RoHS, EN50155 & EN50121-3-2
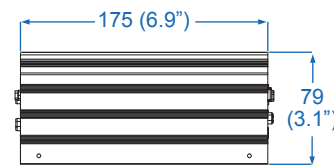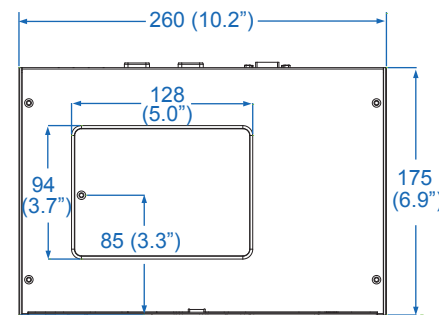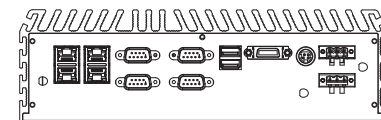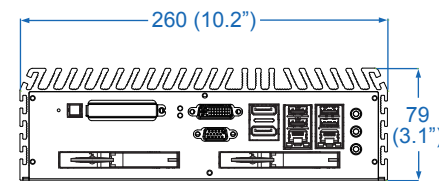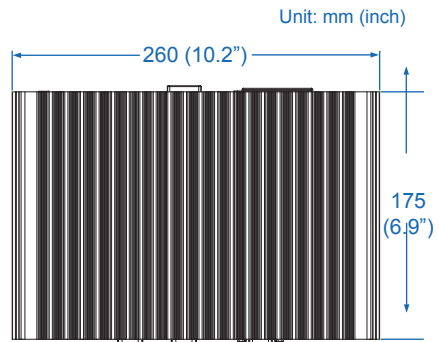
All product specifications are subject to change without prior notice.

260 (10.2")
175 (6.9")
260 (10.2")
79 (3.1")
260 (10.2")
128 (5.0")
94 (3.7")
85 (3.3")
175 (6.9")
175 (6.9")
79 (3.1")

Order Information

Part Number	Description
ECS-7000-9GD	9 GbE LAN Fanless Embedded Controller, 2 SSD | HDD, Isolated DIO, iAMT 8.0
ECS-7000-9R	9 GbE LAN Fanless Embedded Controller, 2 Front Panel Access Removable SSD | HDD with Key Lock, iAMT 8.0
ECS-7000-6GDE	6 GbE LAN Fanless Embedded Controller, 2 SSD | HDD, Isolated DIO, SUMIT (A, B), iAMT 8.0
ECS-7000-6GD	6 GbE LAN Fanless Embedded Controller, 2 SSD | HDD, Isolated DIO, iAMT 8.0
ECS-7000-6R	6 GbE LAN Fanless Embedded Controller, 2 Front Panel Access Removable SSD | HDD with Key Lock, iAMT 8.0
ECS-7000-6G	6 GbE LAN Fanless Embedded Controller, 2 SSD | HDD, iAMT 8.0
ECS-7000-2V	2 GbE LAN Fanless Embedded Controller, 2 SSD | HDD, and 4-CH, 120 fps, Built-in Video Capture Function
ECS-7000-2R	2 GbE LAN Fanless Embedded Controller, 2 Front Panel Access Removable SSD | HDD with Key Lock
ECS-7000-2G	2 GbE LAN Fanless Embedded Controller, 2 SSD | HDD

Part Number	Description
i7-3610QE	Ivy Bridge 3rd Gen Intel® Mobile Quad-Core™ i7 Processor
i5-3610ME	Ivy Bridge 3rd Gen Intel® Mobile Core™ i5 Processor
i3-3120ME	Ivy Bridge 3rd Gen Intel® Mobile Core™ i3 Processor
M340S-W28M1	Vecow DDR3 4GB 1333|1066MHz RAM, Micron® Chip, Wide Temperature -40°C ~ +85°C
KVR13S9S8/8	Kingston® DDR3 8GB PC1333 RAM
KVR13S9S8/4	Kingston® DDR3 4GB PC1333 RAM
PWA-120WM4P	120W, 24V, 90VAC to 264VAC power adapter
SCSI-20P-100	20-in SCSI Cable, 1M
TMB-SCSI-20P	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
WiFi Module	Intel® MiniPCIe WiFi Module with Antenna

ECS-7000 series

High Performance, Rugged, Extended Temp., Fan-less Embedded System with 9 GbE and Intel® QM77 Express Chipset & Choice of 3rd Gen. Intel® Quad Core™ i7/i5/i3 Mobile Processor

- 3rd Gen Intel® Quad Core™ i7 | i5 | i3 Ivy Bridge Mobile Processor (6M Cache, up to 3.30 GHz)
- Fanless, -25°C to 70°C Operation Temperature
- 9 GbE LANs, Independent LAN Controllers
- QM77 System Chipset
- Support 2 SO-DIMM DDR3 or DDR3L, up to 16GB
- Isolated 8 DI | 8 DO, GPIO 8 DI | 8 DO
- 2 SATA III (6Gbps) 2.5" SSD | HDD, mSATA

- Built-In Input 80 V_{DC} Overvoltage Protection
- Rich I/O: 4 COM, 4 USB 3.0, 2 USB2.0, 2 Mini-PCIe (1 with SIM Card Socket)
- 5 Display Support: 2 DP, DVI-D, VGA, LVDS 3 Independent Displays
- Intel® AMT 8.0 Support
- Onboard Trusted Platform Module (Optional)

ECS-7000 series support 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), DDR3L and DDR3 maximum dual channel 16GB ram, 3 independent display (DP, DVI-D, and VGA), isolated DIO, maximum 9 GbE LANs, CFast, two 2.5" SATA 6Gp/s SSD | HDD trays, 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module which making ECS-7000 series stand out from others in machine vision and GigE imaging, intelligent automation, surveillance and security, and most of embedded applications. ECS-7000 full series powered by cutting-edge the 3rd Gen Intel® Quad-Core™ i7 Processor (6M Cache, up to 3.3 GHz) not only increasing power efficiency as much as 25% also integrates Intel® HD 4000 graphics and extremely low thermal design power as 35W providing an enhanced reliability, safety and shock resistance for fanless operation required environments. Maximum 9 GbE LANs, ECS-7000 series provide stable and speedy Ethernet with 9.6 kb/s to 1 Gb/s data transmission option for high bandwidth and supports Ethernet Control Automation Technology (EtherCAT).

Vecow

ECS-7000 series Performance Fan-less Embedded System

High Performance, Rugged, Extended Temp., Fanless Embedded System with 9 GbE and Intel® QM77 Express Chipset & Choice of 3rd Gen. Intel® Quad CoreTM i7/i5/i3 Mobile Processor

ISOLATED DIO

ECS-7000-6GDE

SATA 3 | 6 GbE | SUMIT | DIO

Ideal industrial system solution, ECS-7000-6GDE model equipped with 6 GbE LAN, Isolated DIO 8 DI, 8 DO, and SUMIT interface to provide greater effective data transfer rates. ECS-7000-6GDE model also enables 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.

SUMIT®

ECS-7000-6GD

SATA 3 | 6 GbE | DIO

Collecting most industrial useful interfaces, ECS-7000-6GD model has designed with isolated DIO 8 DI, 8 DO and GPIO 8DI, 8DO. Like all other ECS-7000 series, ECS-7000-6GD enables 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 2 SSD/HDD trays, 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.

GRAND

Front Panel Accessible SSD | HDD Trays

ECS-7000-6R

SATA 3 | 6 GbE

Featuring with 6 GbE LAN and 2 front panel accessible SSD/HDD trays, ECS-7000-6R model also enables 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.

ECS-7000-6G

SATA 3 | 6 GbE

For the outstanding console functions, ECS-7000-6G model has designed with 6 GbE LAN ports for various devices to communicate with microcontroller. ECS-7000-6G model not only enables 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 2 SSD/HDD trays, 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.
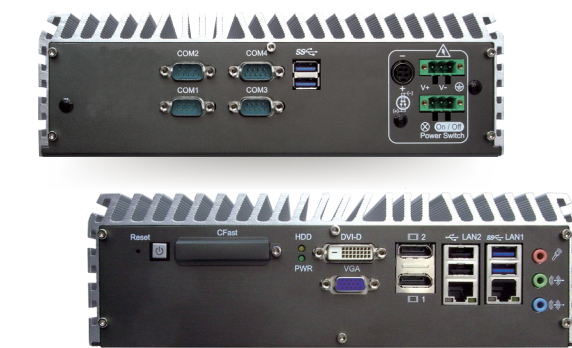
STANDARD

Front Panel Accessible SSD | HDD Trays

ECS-7000-2R

SATA 3

ECS-7000-2R supports 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 2 GbE LAN, 2 front panel access removable SSD/HDD trays with key locks, 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.

ECS-7000-2G

SATA 3

ECS-7000-2G supports 3rd Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), 2 GbE LAN, 2 SSD/HDD trays , 4 COM, 4 USB 3.0 ports, JST connector, and 2 miniPCI-express, plus with overvoltage protection and Trusted Platform Module.
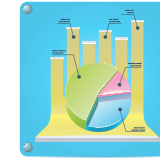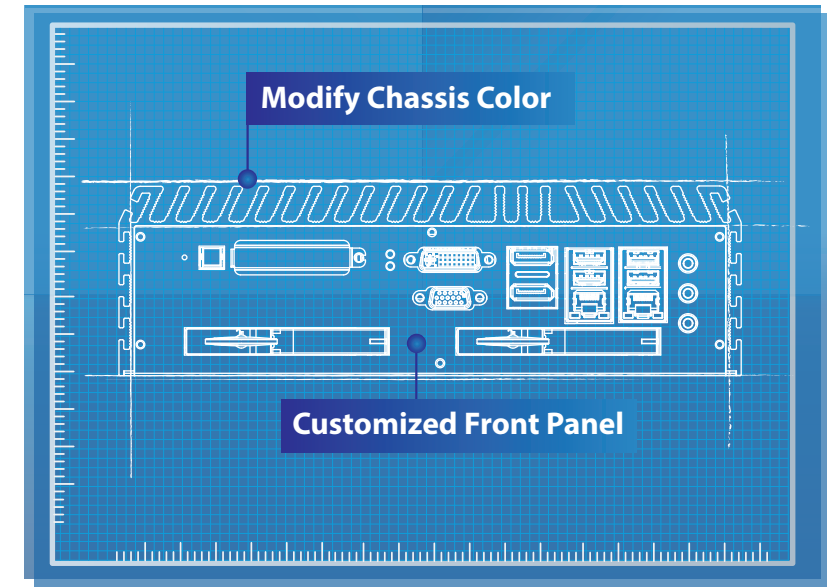
CUSTOMISED

Cost-Efficient

Customized

Quality

Modify Chassis Color

Customized Front Panel

Time-To-Market

Integrated

Reliability

Industrial Plant	Machine Vision	Intelligent Manufacture System	Intelligent Automation	Medical & Health Care	Surveillance & Security (NVR)