

# ECS-7000M series

Extended Temp, Fanless Embedded System with M12 Power Input, Four M12 COM, Four M12 USB 3.0, Four M12 GbE & Intel® QM77 Express Chipset & Choice of 3rd Gen Intel® Quad Core™ Processor



3rd Gen Intel® Quad-Core™ i7/i5/i3 Sandy Bridge Mobile Processor

Four M12 GbE & Two GbE LAN

Compliant with EN50121-3-2 & Essential Sections of EN50155

Fanless, -25°C to 70°C

Two SATA III (3Gbps) 2.5" SSD / HDD

3G/4G, GPS/GPRS, WiFi Support

Dual Display Support: DVI-D, VGA

M12 Power Input

VECOW's ECS-7000M is perfectly designed for controlling, monitoring machinery for Power, Energy, Mining, Agriculture, Gas, Oil, Water, Factory Automation as well as Railway (EN50155-certified). By enhancing the continual connectivity with multiple rugged IP67 rated M12 connectors, max. three RS-232, one RS-232/422/485, max. four USB 2.0/3.0 and max. four GbE LANs, separately. Moreover, one isolated M12 6~36V DC input also guarantee a stable operation in harsh environments. The robust connector enhancement truly allows complete protection for data transmission during heavy shock and constant vibration. Additionally, ECS-7000M inherits the exceptional architecture of the ECS-7000 series, featuring the latest 3rd Generation Intel® Quad Core™ i7/i5/i3 Ivy Bridge processor with the capability up to 16GB from dual channel DDR3L/DDR3 and most of the remarkable features, including front accessible one DVI-D, one VGA, two Display Ports, two GbE LANs, four USB 3.0 ports and wide temperature at -25°C to +70°C. With these perfect combinations, ECS-7000M is the best solution that can thoroughly fit your application.

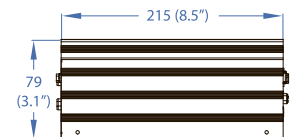
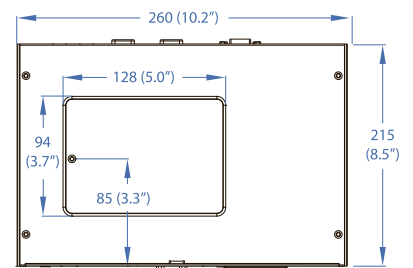
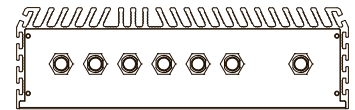
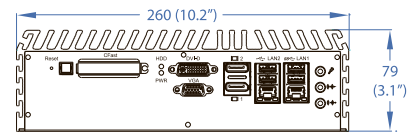
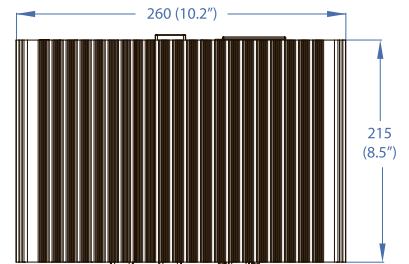


## Specification

Unit: mm (inch)

<b>System</b>	
Processor	3 <sup>rd</sup> Generation Intel® Quad Core™ i7/i5/i3 Ivy Bridge Processors
Chipset	Intel® Mobile QM77
BIOS	AMI
SIO	IT8783F
Memory	DDR3 1066/1333/1600 MHz or DDR3L 1066/1333MHz Max. 16GB Two 204-Pin SO-DIMM Sockets
<b>I/O Interface</b>	
Serial Interface	1x COM RS-232/485/422 with M12 A-coded(Female) 8-pin 1x COM RS-232 with M12 A-coded(Female) 8-pin 2x COM RS-232 with M12 A-coded(Female) 8-pin (by request)
USB Interface	2x USB3.0 with M12 A-coded(Female) 8-pin (compatible to USB 2.0) 2x USB2.0 with M12 A-coded(Female) 8-pin (from 2x internal USB 2.0, by request) 2x USB 3.0 (compatible to USB 2.0) 2x USB 2.0
Isolated DIO	8 DI, 8 DO, 5V~24V Input
LED	Power, HDD and CFast LEDs
GPIO	16 GPIO
<b>Expansion</b>	
Mini PCIe	1x miniPCIe socket (PCIe +USB+ SIM card socket), compatible with mSATA 1x miniPCIe socket (PCIe +USB), compatible with mSATA
<b>Graphics</b>	
Chipset	Intel® GMA HD 4000
Display Memory	Shared Memory, Up to 1.7GB
Interface	DB-15 VGA / 1920x1200 Max. DVI-D / 1920x1200 Max. Display Port 1 / 2560x1600 Max. Display Port 2 / 1920x1200 Max. LVDS/Dual channel 24-bit/ 1920x1200 Max.
<b>Storage</b>	
SATA	2x SATA III 6Gbps 1x SATA II 3Gbps - Support Horizontal Type SATA DOM
mSATA	2x SATA II 3Gbps (optional)
Storage Expansion	CFast Slot
<b>Audio</b>	
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	Line-in, Line-out, Mic-in, Front Audio Header
<b>Ethernet</b>	
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 with M12 A-coded(Female) 8-pin
LAN4	Intel® 82574L Gigabit LAN with M12 A-coded(Female) 8-pin
LAN5	Intel® 82574L Gigabit LAN with M12 A-coded(Female) 8-pin (by request)
LAN6	Intel® 82574L Gigabit LAN with M12 A-coded(Female) 8-pin (by request)
<b>Power</b>	
Power Input	3-pin Terminal Block for DC-IN : V+, V-, Frame Ground M12 A-coded(Female) 4-pin for DC-IN : V+, V- (by request) DC-IN 6 ~ 36V
Power Input Voltage	2-pin Terminal Block for Remote Power On   Off Switch (by request)
Remote Power Switch	M12 A-coded(Female) 4-pin for Remote Power On   Off Switch (by request) On-board LT4356 for High Voltage Surge Protection
Protection	
<b>Other</b>	
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
<b>Mechanical</b>	
Chassis Construction	Aluminum Housing
Dimension (W x L x H)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	3.5 Kg (7.7lb)
Mounting	Wall-mount by Mounting Bracket; VESA-mount (by request)
<b>Environment</b>	
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	10% to 95% Humidity, Non-condensing
Relative Humidity	95% at 70 degree 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 and photos are subject to change without prior notice.



## Order Information

ECS-7000M	High Performance, Rugged, Extended Temp, Fanless Embedded System with M12 power input and up to 4x M12 COM and 4x M12 USB 3.0/2.0 and 4x M12 GbE and Intel Quad Core i7/i5/i3 Processor and Intel QM77 Express Chipset 3.0/2.0 Express
i7-3610QE	Ivy Bridge 3rd Gen Intel® Quad-Core™ i7 Processor
i5-3610ME	Ivy Bridge 3rd Gen Intel® Core™ i5 Processor
i3-3120ME	Ivy Bridge 3rd Gen Intel® Core™ i3 Processor
M340S-W28M1	Vecow DDR3 4GB 1333/1066MHz RAM, Wide Temperature -40°C ~ +85°C
Certified DDR3 4GB RAM	Certified DDR3 4GB PC1333 RAM
Certified DDR3 8GB RAM	Certified DDR3 8GB PC1333 RAM
WiFi Module	Intel® MiniPCIe WiFi Module with Antenna
WiFi & Bluetooth Module	Intel® MiniPCIe WiFi & Bluetooth Module with Antenna
3G Module	Sierra MC8090 with Antenna
4G Module	Sierra MC7710 with Antenna
ECS-VESA-Mount	ECS-7000 series VESA Mounting Kit
PWA-160W-WT	160W, 24V, 85VAC to 264VAC Industrial Power Adapter, Wide Temperature -30°C ~ +70°C
PWA-120WM4P	120W, 24V, 90VAC to 264VAC Power Adapter