

# ECS-7800-PoE

High Performance, Rugged, Extended Temp., -25°C ~ 70°C

3<sup>rd</sup> Gen. Intel® Quad Core™ i7/i5/i3 Fan-less Embedded System with 4-Port GigE PoE+



- 3<sup>rd</sup> 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
- 4-Port IEEE 802.3at PoE+
- Built-in Input 80 V<sub>DC</sub> Overvoltage Protection
- Isolated 8 DI | 8 DO, GPIO 8 DI | 8 DO
- QM77 System Chipset
- Rich I/O: 4 COM, 4 USB 3.0, 2 USB2.0, 2 Mini-PCle (1 with SIM Card Socket)
- Support 2 SO-DIMM DDR3 or DDR3L, up to 16GB
- 5 Display Support: 2 DP, DVI-D, VGA, LVDS 3 Independent Displays
- 2 SATA III (6Gbps) 2.5" SSD | HDD, mSATA
- Intel® AMT 8.0 Support

ECS-7800-PoE supports 3<sup>rd</sup> Gen Intel® Quad-Core™ series processor (6M Cache, up to 3.30 GHz), DDR3L and DDR3 maximum dual channel 16GB ram, 4-port IEEE 802.3at PoE+, 5 display (2 DP, DVI-D, VGA, LVDS), isolated DIO, 2 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. Using only one Ethernet cable to supply power and transmit and sync data simultaneously, ECS-7800-PoE apply IEEE 802.3at power sourcing equipment enable to supply 50 to 57 V<sub>DC</sub>, 600 mA, and 25.5W at the powered device, for example, HD LCDs, touchscreens, cameras and motion sensors. Design for wider compatibility, higher power supply but less total cost and wiring, ECS-7800-PoE is one-of-a-kind dream fan-less embedded system for machine Vision, outdoor imaging, 3-D imaging, ITS (Intelligent Traffic Solutions), quality control, and medical imaging applications.





## Specification

### System

Processor	3 <sup>rd</sup> 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 16GB 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, 5V~24V Input
LED	Power, SDD, CFast, and WDT LEDs
GPIO	16 GPIO

### Expansion

Mini PCIe	miniPCIe Socket (PCIe + USB + SIM Card Socket), Optional with mSATA
SUMIT A, B	miniPCIe Socket (PCIe + USB), Optional with mSATA
JST Connector	2 SUMIT Slots (Optional) 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, External Hot-Swap, 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

### Power-over-Ethernet

4 Gigabit IEEE 802.3at (25.5W / 48V) PoE Ports by Intel® 82574L

### 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

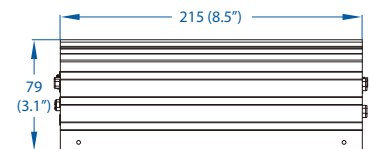
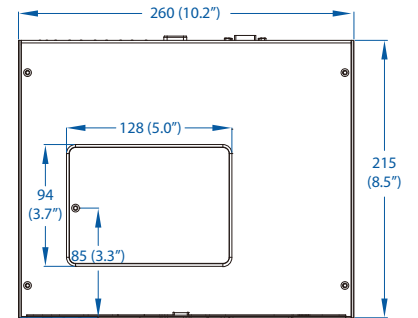
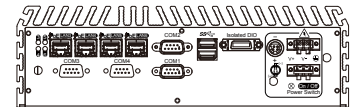
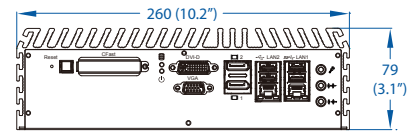
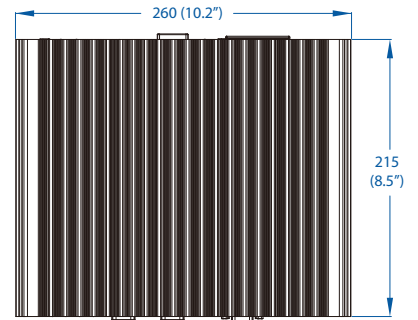
### Mechanical

Chassis Construction	Aluminum Housing
Size(W x D x H)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	3Kg (6.6 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	10% 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

\*All product specifications and photos are subject to change without prior notice.



Unit: mm (inch)

## Order Information

Part Number	Description
ECS-7800-PoE	Fan-less Embedded System with 6 GbE LAN, 2 SO-DIMM, 4 COM, 4 USB 3.0, 2 SATA III SSD/HDD, Isolated DIO, 4-Port Gigabit PoE+
Option	Description
i7-3610QE	Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Quad-Core™ i7 Processor
i5-3610ME	Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Core™ i5 Processor
i3-3120ME	Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Core™ i3 Processor