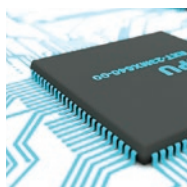
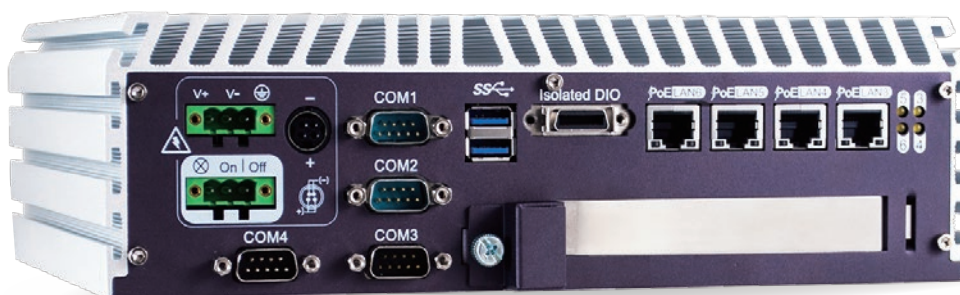
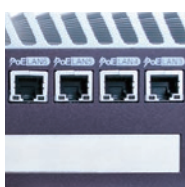


# ECS-7700/7100

High Performance, Rugged, Extended Temp., Intel® Quad Core™ i7/i5/i3 Processor Fanless Embedded System with 6 Gigabit Ports (4 PoE+) and 1 PCIe/PCI Expansion Slot



Intel® Quad Core™  
i7/i5/i3 Processor



4 Gigabit PoE+  
Ports & 2 Gigabit  
LAN Ports



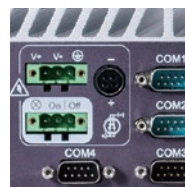
Fanless & Rugged,  
-25°C to 70°C  
Operating Temp.



1 PCIe/ PCI  
Expansion Slot



Compliant with  
EN 50121-3-2 &  
Essential Sections  
of EN 50155



4 COM, 4 USB 3.0,  
2 USB 2.0,  
2 Mini PCIe  
(1 Internal SIM)



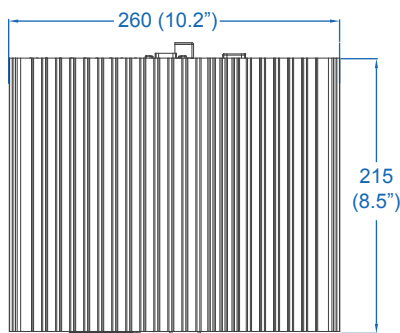
Triple Independent  
Displays : DVI-D,  
VGA, DisplayPort

Powered by Intel® Quad Core™ i7 Processor (6M Cache, up to 3.30 GHz), ECS-7700/7100 series integrates 2 GbE LAN, 4 Gigabit PoE+ ports (Optional), and one PCIe/PCI expandable slot. With maximum dual channel 16GB Memory, DVI-D, DisplayPort and VGA triple Independent display, two 2.5" SATA 6Gbps HDD/SSD, one SATA 6Gbps SSD/HDD supports SATA DOM, one of 2 Mini PCIe Sockets supports SIM card for 3G/ 4G/ UMTS/ GPS/ WiFi, and still keep outstanding thermal design for -25°C to +70°C Celsius industrial operating temperature range. ECS-7700/7100 series provides 2 fully integrated Gigabit Ethernet interfaces for up to 1000Mbps data transfer rate by each and jumbo frames up to 9KB. Enabling accurate time synchronization, wake-up function, and boot up through the extensible firmware interface (PXE), ECS-7700/7100 series integrates fully power management function to optimize voltage efficiency. Empowering 4 Gigabit IEEE 802.3at PoE+ ports, ECS-7700/7100 series is the ideal option for GigE cameras required efficient power supply and distances connection. Improving network traffic load-balancing by optimized parallel and pipelined architectures, the 2 gigabit Ethernet controllers of ECS-7700/7100 series enable to smooth the network traffic loading for most demanding occasions. ECS-7700/7100 series is designed for machine vision, intelligent automation, intelligent manufacturing system, automation networking communication, IOT (Internet of Things), EtherCAT (Ethernet for Control Automation Technology) and process control applications.

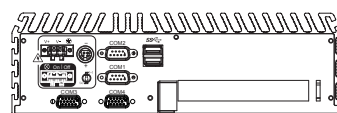


# Dimensions & Drawing

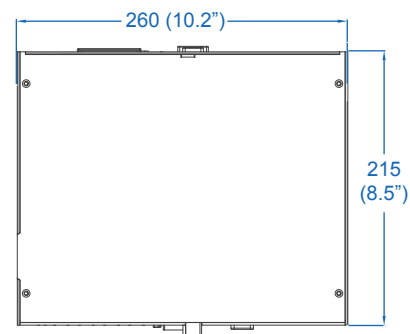
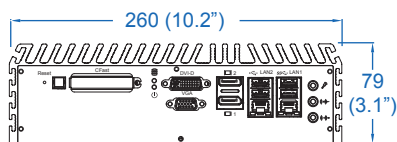
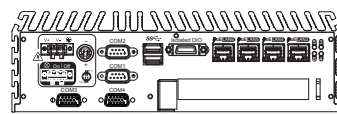
Unit: mm (inch)



ECS-7100



ECS-7700



## Specifications

### System

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

### I/O Interface

Serial	3 COM RS-232, 1 COM RS-232/485/422
USB	4 USB 3.0 (Compatible to USB 2.0) 2 USB 2.0

### Isolated DIO (Optional)

2 Internal USB 2.0 (6-pin JST)

LED	16 Isolated DIO (8 DI, 8 DO)
GPIO	5V to 24V Input Power/Suspend, SDD/CFas 16 GPIO

### Expansion

PCIe/PCI	1 Slot for PCIe x16 / 1 PCI Expansion Card
Mini PCIe	1 Mini PCIe Socket (PCIe + USB + Internal SIM), optional with mSATA 1 Mini PCIe Socket (PCIe + USB), optional with mSATA

### Graphics

Chipset	Intel® HD 4000, Triple Independent Display
Display Memory	Shared Memory, up to 1.7GB
Interface	DB-15 VGA : Up to 1920x1200 DVI-D : Up to 1920x1200 DisplayPort 1 : Up to 2560x1600 DisplayPort 2 : Up to 1920x1200 LVDS : Dual channel 24-bit, up to 1920 x 1200

### Storage

SATA	2 SATA III (6Gbps) 1 SATA II (3Gbps)
mSATA	2 SATA II (3Gbps)
Storage Expansion	CFast Slot, Push-in/ Push-out Ejector

### Audio

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

### Ethernet

LAN 1	Intel® 82579LM Gigabit LAN, supports iAMT 8.0
LAN 2	Intel® 82574L Gigabit LAN

### PoE

LAN 3	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® 82574L (Optional)
LAN 4	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® 82574L (Optional)
LAN 5	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® 82574L (Optional)
LAN 6	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® 82574L (Optional)

### Power

Power Input	1 Mini DIN 3-pin Terminal Block : V+, V-, Frame Ground 2-pin Terminal Block DC-IN 6V to 36V
Remote Switch	AC to DC +24V / 5A, 120W (Optional)
Input Voltage	Onboard LT4356 for High Voltage Surge Protection
Power Adapter	
Surge Protection	

### Others

TPM	Trusted Platform Module, Infineon SLB9635, LPC interface (Optional)
Watchdog Timer	Reset : 1 to 255 sec./min. per step
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats
Smart Management	Wake on LAN, PXE supported

### Mechanical

Dimension (W x L x H)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	2.1 kg (4.6 lb)
Mounting	Wallmount 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	IEC 60068-2-64 SSD : 5 Grms @ 5Hz to 500Hz, 3 Axis IEC 60068-2-27
Shock	SSD : 50G @ Wallmount, Half sine, 11ms
EMC	CE/ FCC/ EN 50155 & EN 50121-3-2

## Order Information

### Part No. Description

ECS-7710	Intel® Quad Core™ Fanless Embedded System with <b>6 Gigabit Ports (4 PoE+), 16 Isolated DIO and 1 PCIe x16 Expansion Slot</b>
ECS-7701	Intel® Quad Core™ Fanless Embedded System with <b>6 Gigabit Ports (4 PoE+), 16 Isolated DIO and 1 PCI Expansion Slot</b>
ECS-7110	Intel® Quad Core™ Fanless Embedded System with <b>2 Gigabit Ports and 1 PCIe x16 Expansion Slot</b>
ECS-7101	Intel® Quad Core™ Fanless Embedded System with <b>2 Gigabit Ports and 1 PCI Expansion Slot</b>

### 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
M340S-W28M1	Vecow DDR3 4GB 1333/1066MHz RAM, Wide Temperature -40°C ~ +85°C
Certified DDR3 4GB RAM	Certified DDR3 4GB RAM
PWA-120WM4P	120W, 24V, 90VAC to 264VAC Power Adapter
SCSI-20P-100	20-pin SCSI Cable, 1M
TMB-SCSI-20P	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting

ECS-7700/7100-20150212



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