Vecow

ECS-5600 series

High-Performance, Fanless, Extended Operation Temperature Embedded System with 2nd Gen Intel® QM67 Quad Core™ i7 / i5 / i3 Sandy Bridge Processsor

Distinguishing Excellence for Various Application

Superior Performance

- Quad Core 2nd Gen Intel© Core™ Mobile Series, Sandy Bridge
- Dual Channel DDR3 1333/1066MHz Maximum 16GB
- SATA III (6Gbps) HDD/SSD

HD Graphic

- Dual Display: VGA + DVI-D or HDMI
- Intel© HD Graphics for significant 3D performance
- Intel© InTruTM : Full HD 1080p Resolution in 3D

Security & Reliability

- -25°C to 70°C Wide Operation Temperature
- Fanless & Less Internal Cable
- DC-IN, 6~36 Voltage
- Removeable HDD with Key Lock

Wire-rate Network Communication

- RJ-45 GbE LAN Port
- Intel© AMT 7.0 Support

Order Information

Product No.	Description
ECS-5600-3G	3 GbE Lan Fanless Embedded Controller, 2 HDD
ECS-5600-5G	5 GbE Lan Fanless Embedded Controller, 2 HDD, iAMT 7.0
ECS-5600-5GD	5 GbE Lan Fanless Embedded Controller, 2 HDD, Isolated DIO, iAMT 7.0
ECS-5600-5GDE	5 GbE Lan Fanless Embedded Controller, 2 HDD, Isolated DIO, SUMIT (A, B), iAMT 7.0
ECS-5600-3R	3 GbE Lan Fanless Embedded Controller, 2 Front Panel Access Removable HDD with Key Lock
ECS-5600-5R	5 GbE Lan Fanless Embedded Controller, 2 Front Panel Access Removable HDD with Key Lock, iAMT 7.0

Option	Description
CPU Selection	Sandy Bridge 2nd Gen Intel® Mobile Core™ i7-2710QE
	Sandy Bridge 2nd Gen Intel® Mobile Core™ i5-2510E
	Sandy Bridge 2nd Gen Intel® Mobile Core™ i3-2330E
	Sandy Bridge 2nd Gen Intel® Mobile Core™ Celeron® B810
SO-DIMM Selection	Vecow M-Series Wide Temperature -40°C ~ +85°C , DDR3 1333/1066MHz 4GB SO-DIMM
	Kingston®, DDR3 1333/1066MHz 8GB SO-DIMM
	Kingston®, DDR3 1333/1066MHz 4GB SO-DIMM
PWA-90W	90W, 24V, 90VAC to 264VAC Power Adapter

- 2nd Gen Intel® Core™ i7/i5/i3 Sandy Bridge Mobile Processor
- Rugged, Fanless, -25 °C to 70 °C Operation Temperature
- Support 2 DDR3 RAM, up to 16GB
- QM67 System Processor
- Rich I/O: 4 COM, 6 USB, 2 Mini-PCIe, SIM Card Socket
- 3 / 5 GbE LAN for Extend Internet Application
- Dual Display: DVI-D / HDMI and VGA
- Intel® AMT 7.0 Supported for 5G/5R/5GD/5GDE
- 2 SATA III (6Gbps) 2.5" HDD / SSD
- Optional: Isolated DIO, SUMIT™ A, B

ECS-5600 series, Extended Fanless Embedded System, with integrated 2nd Gen Intel® Core™ i7, i5, i3, and Celeron® Sandy Bridge mobile series processor equipped with maximum 5 GbE LANs, DVI-D/HDMI and VGA dual display, CFast, SUMIT A, B, dual channel maximum 16GB 1333/1066MHz DDR3 SO-DIMM slots, up to 2 bottom (optional front access with key lock) 2.5" SATA III (6Gbps) HDD/SSDs, SATA II (3Gbps), and 2 eSATA ports enable operating under -25°C to +70°C extended temperature. The new 2nd Gen Intel® Core™ processors offer embedded designers a number of important upgrades including multiple CPU cores, an integrated graphics processor, Intel® AMT 7.0 support, Intel® virtualization technology, Intel® Turbo Boost Technology, and remote management support. For vivid graphic enhancement, Intel® HD graphics engine supports H.264/AVC-MPEG2/VC1, DirectX 10.1 and OpenGL 3.0. Designed for harsh operational environments and high performance applications requiring expansion flexibility and data security, the ECS-5600 Series is suited for a broad range of embedded applications, including security and surveillance solutions, digital signage, industrial automation, machine automation, in-vehicle platforms, and intelligent transportation systems.

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Specification

System

CPU	2nd Gen. Intel® Mobile Core™ i7 / i5 / i3 Sandy Bridge Processor
Chipset	Intel® QM67
BIOS	Phoenix UEFI BIOS
SIO	Nuvoton NCT6106D
Memory	DDR3 1333 / 1066MHz Max. 16GB, 2 204-pin SO-DIMM Sockets

I/O Port

Serial Interface	3 COM RS-232, 1 COM RS-232/485/422
USB Interface	6 USB Ports, Compliant with USB 2.0
Isolated DIO	8 DI, 8 DO (ECS-5600-5GD & ECS-5600-5GDE Models)
LED	Power / Suspend, HDD, and WDT LED
GPIO	8 DI / 8 DO

Expansion

Mini PCIe	2 Mini PCIe, 1 SIM Socket on 1 Mini PCIe Interface
SUMIT A, B	2 SUMIT Slots (ECS-5600-5GDE Model)

Graphics

Chipset	Intel® GMA HD 3000
Display Memory	Shared Memory, Up to 1.7GB
Interface	VGA + DVI-D / HDMI
	Onboard VGA, Supports Max. Resolution 2048 x1536 (@60Hz)
	Onboard DVI-D, Supports Max. Resolution 1920 x1200

Storage

SATA	2 Bottom SATA III (6Gbps) 2.5” HDD/SSD Drive Bays
	2 Front Access SATA III (6Gbps) 2.5” HDD/SSD Drive Bays with Key Lock (ECS-5600-3R & ECS-5600-5R Models)
	SATA II (3Gbps) Slot, Supports IDE / AHCI Mode
Storage Expansion	CFast Slot, External Hot-swap, Push In / Out Ejector
eSATA	2 eSATA Ports

Audio

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

Ethernet

LAN1~ LAN4	Intel® 82574L Gigabit LAN
LAN5	Intel® 82579LM Gigabit LAN

Power

Power Input	DC Jack, 2-pin Terminal Block
Power Input Voltage	DC-IN 6 ~ 36V
Power Adapter	AC to DC +24V / 3.75A. 90W Max. (Optional)

Other

Watchdog Timer	Reset: 1 to 255 sec/min Per Step
HW Monitor	Temperature/ Voltages Auto Throttling Control When CPU Overheats

Mechanical

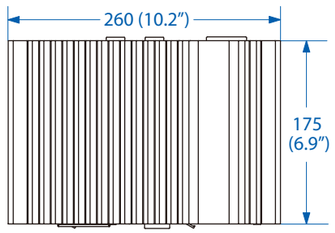
Chassis Construction	Aluminum Housing
Size(W x D x H)	260mm x 175mm x 78mm (10.2” x 6.9” x 3.1”)
Weight	2.8Kg (6 lb)
Mounting	Wall-mount by Mounting Bracket

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	10% to 95% Humidity, Non-condensing
Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, According to IEC60068-2-64)
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
EMC	CE, FCC, RoHS, EN50155 & EN50121-3-2

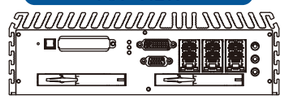
*All product specifications are subject to change without prior notice.

Unit: mm (inch)

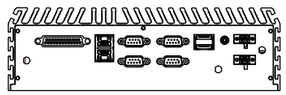


UP VIEW

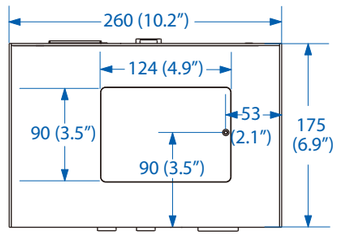
TOP VIEW



FRONT VIEW

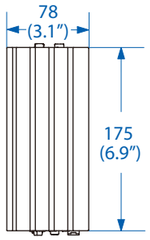


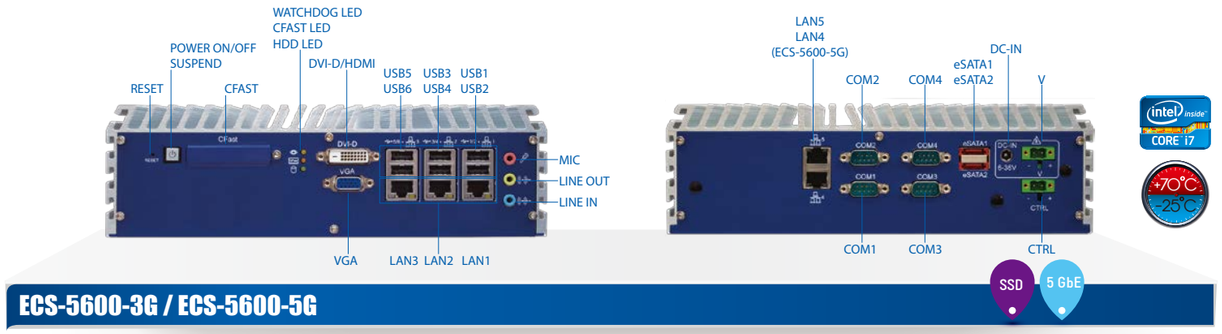
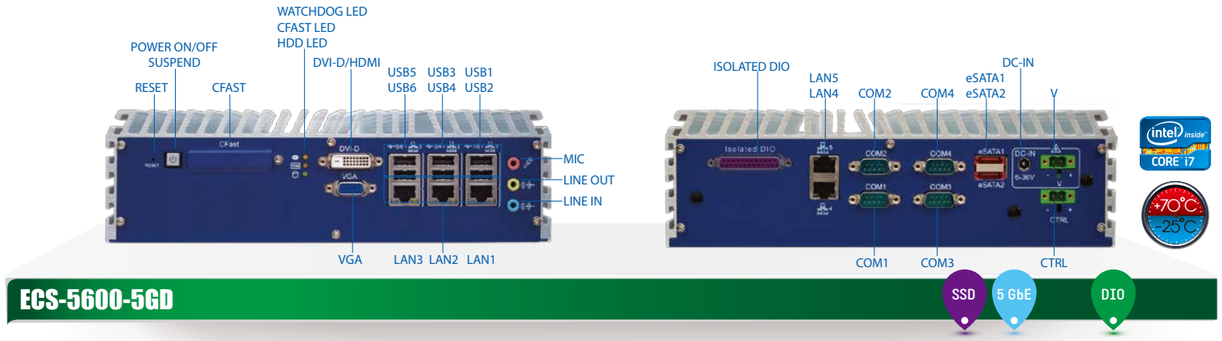
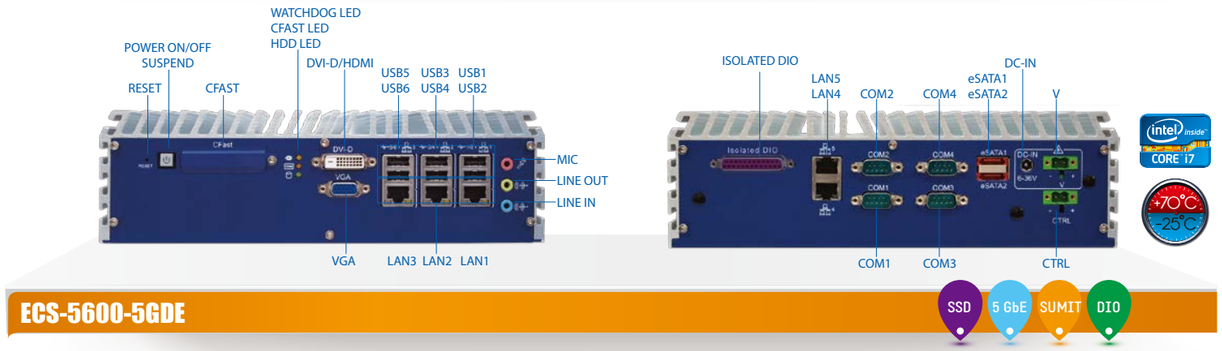
REAR VIEW



*ECS-5600-3G/5G Model

BACK VIEW



SIDE VIEW

Reliable & Rugged Design