

EC-3000

Intel® Core™ i7/i5 Fanless Embedded Controller with 5x GbE and 2x eSATA ports



Overview ▶

Incorporating Intel Core™ i7/i5 processor, Vecow EC-3000 controller offers extraordinary performance for arithmetic-intensive applications, while its fanless design provides superb reliability and durability. Especially design for harsh environment, the Vecow EC-3000 can process various advanced measurement and control applications ranging in ambient temperatures between -20 and 60 degrees Celsius. The fanless design of EC-3000 gives it exceptional long-term durability and tolerance to vibration because all heat-producing components are placed close with the aluminum housing. The all-in-one embedded box PC features rich I/O interfaces, including maximum 5 Gigabit Ethernet ports and 2 eSATA ports particularly for surveillance and security applications. The VGA+DVI/HDMI dual display accomplishes an easy way of high-resolution content output for image or media applications. In addition, EC-3000 also provides isolated DIO, PCI-104 bus expansion and mini-PCIe, to fit a broader range of applications.

Key Features ▶

- ◆ Rugged, -20 °C to 70 °C fanless operation
- ◆ Up to five Intel® 82574L Gigabit Ethernet ports
- ◆ VGA+DVI/HDMI dual display
- ◆ One RS-232/422/485 port and three RS-232 ports
- ◆ Dual eSATA ports
- ◆ Mini-PCIe expansion with SIM support
- ◆ Optional built-in isolated DIO
- ◆ Optional PCI-104 expansion bus

Specification

System Core

Processor	Intel® Core™i7-620M (2.66 GHz) , Intel® i5-520M (2.4 GHz), or Intel® P4500 (1.86 GHz)
Chipset	Intel® HM55 Platform Controller Hub
Graphics	Integrated Intel® HD Graphics Controller
Memory	1x 204-pin SO-DIMM socket, up to 4GB DDR3 1066MHz SDRAM

I/O Interface

Ethernet	Up to 5x Intel® 82574L GbE ports
Video Port	1x DB-15 connector for analog RGB, supporting 2560x1600 resolution 1x DVI-I connector for DVI/HDMI output, supporting 1920x1080 resolution
Serial Port	1x software-programmable RS-232/422/485 (COM1) 3x RS-232 (COM2 ~ COM4)
USB	6x USB 2.0 ports
KB/MS	1x PS/2 keyboard and 1x PS/2 mouse
Audio	1x Mic-in and 1x Speaker-out

Storage Interface

SATA HDD	1x Internal SATA port for 2.5" HDD/SSD installation
eSATA	2x eSATA ports for storage expansion
CompactFlash	1x Type I CF socket

Expansion Bus

Mini PCI-E	1x internal mini PCI Express socket with SIM socket
PCI-104	1x Internal PCI-104 socket (optional)

Power Supply

DC Input	Built-in 8~28 VDC DC input
Input Connector	1x 4-pin pluggable terminal block with remote on/off control 1x DC jack (ø2.5) for AC/DC adapter input

Mechanical

Dimension	240 mm (W) x 195 mm (D) x 76 mm (H)
Weight	2.7 Kg (including 2.5" HDD and DDR3 SODIMM)
Mounting	Wall-mount by mounting bracket

Environmental

Operating Temperature	Ambient with air flow (0.5 m/s or 1.8 km/hr), 100% CPU loading* -20°C ~ 70°C (EC-3000-5G620M & EC-3000-3G520M) -20°C ~ 60°C (EC-3000-3G4500) Ambient with air flow, 100% CPU loading* -20°C ~ 60°C (EC-3000-5G620M & EC-3000-3G520M) -20°C ~ 50°C (EC-3000-3G4500)
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , 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 Class A, according to EN 55022 & EN 55024

*The specification is subject to change without prior notice.

Ordering Information

Product Number	Description
EC-3000-5G	Fan-less controller with 5x GbE, 2x eSATA, 4x COM
EC-3000-3G	Fan-less controller with 3x GbE, 2x eSATA, 4x COM
EC-3000-5G620M	Intel Core i7-620M fanless controller with 5x GbE, 2x eSATA, 4x COM, 2GB DDR3 and 250GB HDD
EC-3000-3G520M	Intel Core i5-520M fanless controller with 3x GbE, 2x eSATA, 4x COM, 2GB DDR3 and 250GB HDD
EC-3000-3G4500	Intel Celeron P4500 fanless controller with 3x GbE, 2x eSATA, 4x COM, 2GB DDR3 and 250GB HDD

Accessories	Description
PWA-60W	60W AC/DC power adapter