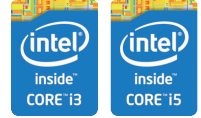
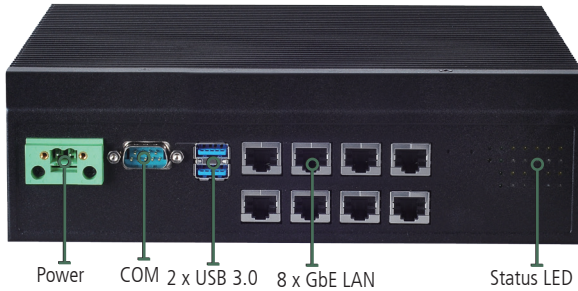


LEC-6040

Industrial Box PC with Intel® Haswell CPU for Industrial Cyber Security Gateway



Overview

LEC-6040 is a fanless industrial box PC with high-performance Intel® Haswell Core™ i5-4402E or i3-4102E CPU, installable through DIN rail, wall-mount, or as desktop. To ensure operational safety in gateway applications, its serial COM port and Ethernet ports are isolated and come with surge/ESD protection. LEC-6040 continues Lanner's well-established traditions of wide temperature workability and system reliability. For extended functionality, LEC-6040 offers multiple functional expansions for storage, communication and display purposes.

Features

Intel® Haswell Core™ inside for high performance

The internal 4th generation Intel® CPU in Haswell 22nm microarchitecture delivers ultra graphical and media performance as well as advanced security instructions, ideal for industrial applications.

Enhanced Protection for Serial COM and Ethernet ports

LEC-6040 serial COM port and Ethernet ports are isolated and engineered with ESD/surge protection to reinforce communication reliability.

Lanner

Expansion Capability

LEC-6040 offers functional expansions, including 1 x CompactFlash socket, 2 x external USB 3.0 ports, 1 x internal USB 2.0 port, 1 x internal pin header for display purpose, 1 x SATA port, 1 x full-sized mini PCIe slot, 1 x half-sized mini PCIe slot (or mSATA Mini), and optionally 8 x COM ports.

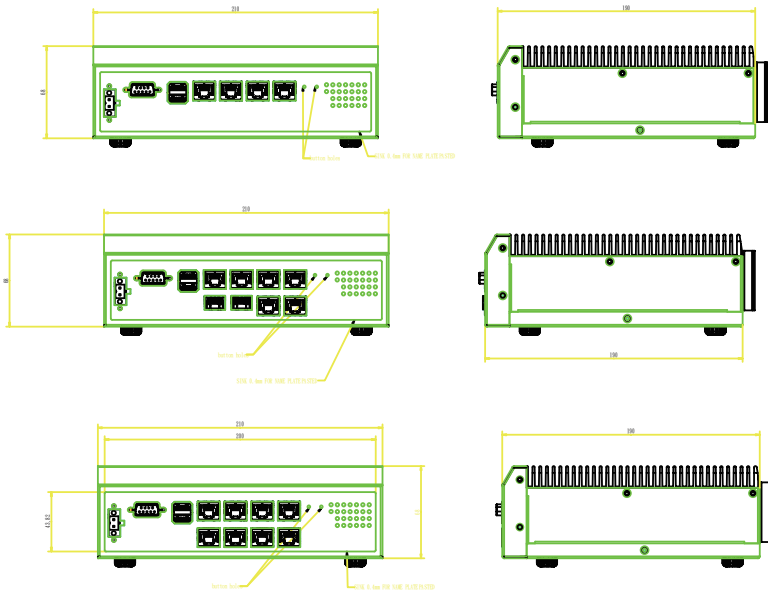
Fanless & Wide Temperature

The fanless design allows external environmental tolerance and avoids mechanical failure. In addition, LEC-6040 is able to operate in wide ambient temperature from -20°C to 55°C.

Flexible I/O Design

LEC-6040 series provides various I/O configurations such as 4 x GbE LAN ports, or 2 x GbE + 2 Fiber SFP ports.

Dimensions: 68 x 210 x 190 mm



Preliminary Specifications

Processor Options		Intel® Core™ i3-4102E or Core™ i5-4402E
Chipset		Intel QM87
BIOS		AMI SPI Flash BIOS
System Memory	Sockets	1 x 204-pin DDR3L SODIMM socket
	Technology	DDR3L 1333 or 1600 MHz, unbuffered, Non-ECC
	Max. Capacity	8 GB
USB		2x External USB 3.0 ports 1x Internal USB 2.0 port
Expansion Bus		1 x full-sized mini PCIe socket for WWAN module (for PCI Express & USB & SIM card) 1 x half-sized mini PCIe, support WLAN module (for USB) or mSATA storage
OS Support		Microsoft Windows 7 Embedded, Window 7, Linux 2.6
Storage	NAND Flash	None
	HDD Support	2.5" SATA* 1 + M SATA Mini * 1
	Expansion	CompactFlash socket Type I/II x1
Networking	LAN	B1: 4x GbE LAN ports, B2: 6x GbE LAN ports, 2 SFP ports, B3: 8x GbE LAN ports
	Controller	-Intel I210 Gigabit Ethernet Controller
	Magnetic Isolation Protection	1.5 KV built-in
Serial Interface	Serial Standard	-1x DB9 supports software RS-232 (3 pin: RxD,TxD,GND) with Isolation and Protection
	ESD Protection	15 KV for all signals
Serial Signals	RS-232	Rx, Tx, GND
	Baudrate	Supports 50 bps to 115.2 kbps
Display	Graphics Controller	Intel® HD 4600
	Display Interface	internal pinheader
LEDs		LCD connector for 1x Power on for LED in Green, 1x Storage access LED in Yellow 16x double stack LED for Ethernet active/link status, 1 x COM for LED in Yellow/Green 4x double stack LED for Programmable (Green)
Physical Characteristics	Housing	Steel, Aluminium
	Weight	2.5 kg
	Dimensions(WxHxD)	68 x 210 x 190 mm
		Mounting Options DIN rail and wall mount
Environment	Operating Temperature	-20~55°C
	Storage Temperature	-40~80°C
	Ambient Relative Humidity	5 to 95% (non-condensing)
Power	Input Voltage	Single 12Vdc power input w/ 2xpin Phoenix Contact connector
	Power Consumption	TBD
	Connector	2-pin terminal block
Standard and Regulation	EMC	CE, FCC
	Green product	RoHS
Reliability	Alter tool	Built-in buzzer and RTC (real-time clock) with lithium battery backup
	Automatic Reboot Trigger	Watchdog Timer 1~255 level time interval system reset, software programmable
	Warranty	2 years
	MTBF	TBD

Ordering Information

LEC-6040H-B1	Intel Core™ Core™ i5-4402E 2.7 GHz CPU, 4 x Intel GbE, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12V DC w/ 2-Pin terminal block, DIN rail
LEC-6040H-B2	Intel Core™ i5-4402E 2.7 GHz CPU, 6 x Intel GbE+2 x SFP, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12V DC w/ 2-Pin terminal block, DIN rail
LEC-6040H-B3	Intel Core™ i5-4402E 2.7 GHz CPU, 8 x Intel GbE, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12V DC w/ 2-Pin terminal block, DIN rail
LEC-6040M-B1	Intel Core™ i3-4102E 1.60 GHz CPU, 4 x Intel GbE, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12Vdc w/ 2-pin terminal block, DIN-Rail
LEC-6040M-B2	Intel Core™ i3-4102E 1.60 GHz CPU, 6 x Intel GbE+ 2 x SFP, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12Vdc w/ 2-pin terminal block, DIN rail
LEC-6040M-B3	Intel Core™ i3-4102E 1.60 GHz CPU, 8 x Intel GbE, 1 x DB9, 2 x USB, 1 x Mini-PCIe, Single 12Vdc w/ 2-pin terminal block, DIN rail