

# Embedded PC

Intel® i7-3517UE In-Vehicle NVR Computer, with 4x PoE ports for IP cameras. 4GB DDR3 Memory included, 2.5" Removable Drive Bay, Mini-PCIe x2 with two SIM card reader, USB x 4, COM x 2, MIO, Optional CAN, Audio, HDMI, DC Power input +9~36Vdc with Ignition, Suspension Kit included



Model: LPC-V5X-A4

## Features

### Multiple PoE LAN ports to support Transport Surveillance

This mobile NVR with 8 PoE ports (IEEE 802.3af) is suitable for IP Video Surveillance and real time recording applications.

### Fanless Design with Corrugated Aluminum

The corrugated aluminum casing allow heat to dissipate off the top of the platform allowing for a fanless design.

### Vehicle Ignition Power Management

Detect the ignition on/off status and allow controlling delay time by flexible setting via software utility.

### Convenient DC output

LPC-V5X-A4 offers 12VDC regulated output (max 1A) for external devices, operational in concert with the Ignition Power Management feature.

### Multi I/O

The MIO design includes 12V Level GPIO, audio, MCU TX/RX and also includes 2x DI (Digital Input from MCU) which can connect sensors to detect the environment. Once defined events occur, the LPC-V5X-A4 series can be turned on automatically.

### Design for MIL-STD-810G with Extreme Vibration Resistance

LPC-V5X-A4 is in compliance with MIL-STD-810G vibration and shock standards and includes SSD storage and a Suspension Kit to further improve robustness.

### Modularized and customizable design

The LPC-V5X-A4 design features the Lanner Proprietary Internal Multi-IO Interface, which carries signals for 2 USB ports, 4 x UART, 4 x Digital I/O, 2 xPCIe, and 1 x SATA 2.0. This allows for customized add-on modules for future features expansion.

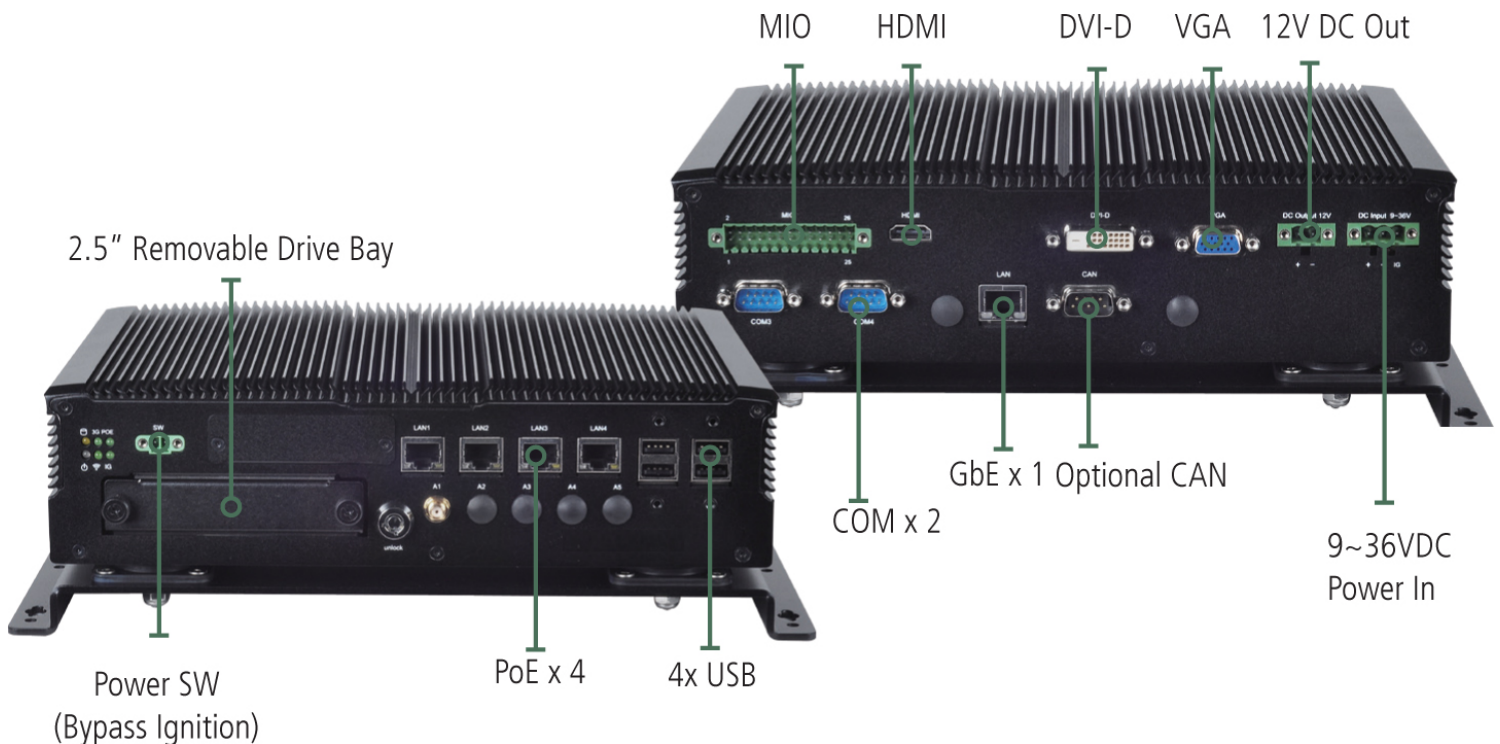
### Settings and Installation via the front panel

MCU setting and CF card and SIM card installation is easy to access simply by opening the front panel.

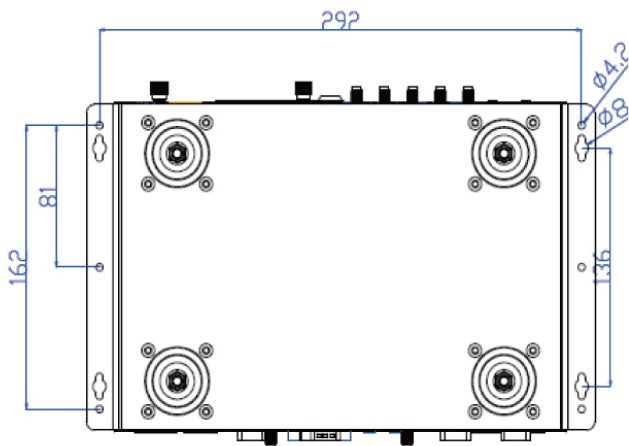
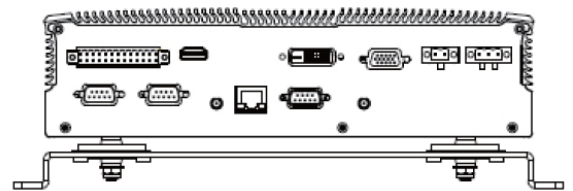
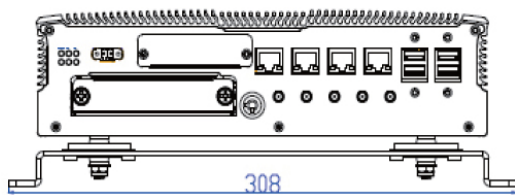
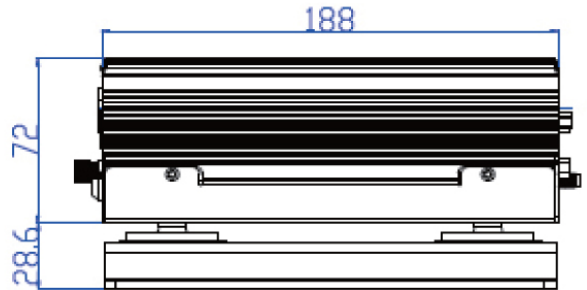
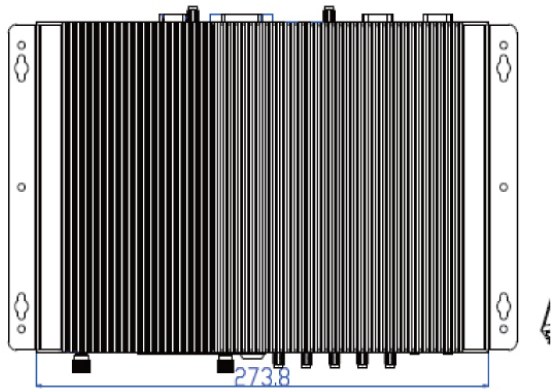
### Optional CAN Bus Module

Designed to act as a bridge between Heavy Duty vehicle protocol and UART interface:

- J1939 and J1708 protocols
- Configurable via AT command
- ASCII and HEX CODE Format Output



# Dimensions: 273.8 x 72 x 188 mm (10.78" x 2.84" x 7.4" )



## Specifications

<b>Dimensions (WxHxD)</b>		273.8 x 72 x 188 mm (10.78" x 2.84" x 7.4" )
<b>Processor</b>		Intel® Core™ i7-3517UE Processors
<b>Chipset</b>		Intel HM65
<b>System Memory</b>	Technology	DDR3 SO-DIMM x1 ( Factory default: 4GB module pre-installed )
	Max. Capacity	Up to 8GB (user option)
<b>Storage</b>	SATA/CF	Removable 2.5" SSD/HDD drive bay x1, CF socket x1
<b>Ethernet Controller</b>		Intel 82583V x5
<b>Graphic Controller</b>		Intel integrated HD graphic engine
<b>Audio Controller</b>		Realtek ALC886 HD codec
<b>IO</b>	LAN	GbE RJ45 x 5
	Display	DVI-D, maximum resolution up to 1920x1200@75Hz VGA, maximum resolution up to 2048x1536@60Hz HDMI, maximum resolution up to 1920x1200@75Hz
		Dual display supports Independent, clone and extended mode.
	Audio	Mic-in and Line-out with 2 watt by terminal block MIO connector
	Serial I/O	1x RS-232/422/485 both with RI/5V/12V
	GPS	Ublox NEO-7N GPS receiver module
	G-sensor	ADXL 345
	Digital I/O	4x DI and 4x DO with 5V/12V Level by jumper setting 2x DI (from MCU) 3.3V Level 2x DO control relay with contact current @ 2A
	USB 2.0	Type A x4
	Power Input	3-pin terminal block (+, -, ignition)
	Power Output	12 VDC/1A
	Expansion	Mini-PCIe x3 (Two with SIM card slot)
	CAN Bus	Support Optional J1939 and J1708 protocols Baud Rate: 9600, 19200, 38400, 57600, 115200
	PoE	PoE x 4, IEEE 802.3af, Standard PoE
Others	External: 5x SMA antenna hole, Remote Power switch Internal: Lanner Proprietary MIO	
<b>Power Input</b>		+9~36VDC input range, with ignition delay on/off control
<b>PoE Power Adapter</b>		Internal integrated
<b>OS Support</b>		Linux: Redhat Enterprise 5/ Fedora 14. Linux Kernel 2.6.18 or later Windows: XP embedded ; Win7 Pro FES/Embedded; Win8
<b>Certifications</b>		CE, FCC Class A, E13, RoHS
<b>Compliance</b>		Vibration: MIL-STD-810G, Method 514.6 Shock: MIL-STD-810G, Method 516.6
<b>Operating Temperature Range</b>	Extended	With Selected Industrial Components: -20~60°C/-4~140°F
	Standard	With Commercial Components: -5~45°C / 23~113°F