

# Nuvo-3000E/3000P Series

Intel® 3rd-Gen Core™ i7/i5/i3 Fanless Controller  
with 5x GbE, 4x USB 3.0 and Expansion Cassette



## Features

- Intel® 3rd-Gen i7 quad-core superb performance
- Patented Cassette\* design for PCIe/PCI add-on card expansion
- Up to 5x GigE ports, supporting 9.5 KB jumbo frame
- Rugged, -25°C to 70°C fanless operation
- Optional intelligent ignition power control for in-vehicle applications
- VGA/DVI/HDMI dual display outputs
- 4x USB 3.0 ports + 4x USB 2.0 ports
- Optional isolated DIO with Change-of-State interrupt support

## Introduction

Discover a leap of embedded controller design with Neosys Nuvo-3000E/3000P series!

Nuvo-3000E/3000P incorporates the cutting-edge processor technology and Neosys' innovative Cassette architecture to construct a truly reliable and versatile embedded controller. Its 3rd-Gen i7 quad-core processor delivers tremendous boost of computing power as well as significant improvement of graphics performance. This platform also natively supports new features such as USB 3.0, DDR3-1600 and SATA3. Inheriting the heritage of proven Nuvo series, Nuvo-3000E/3000P is extremely reliable mechanically and allows -25°C to 70°C operating temperature. Moreover, it comes with Neosys' patented Cassette design. This unique expansion Cassette offers PCI/PCIe slot with minimal thermal interference between system and add-on card, so that your system can always operate in expected thermal condition.

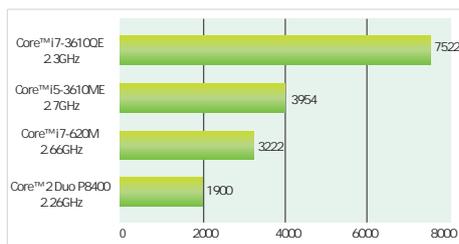
I/O functions on Nuvo-3000E/3000P are versatile. Gigabit Ethernet, USB 3.0 and dual display outputs are natively supported on Nuvo-3000E/3000P. Its optional isolated digital I/O now supports Change-of-State interrupt to give more usability. We also introduce the function of intelligent ignition control to Nuvo-3000E/3000P to make it suitable for in-vehicle applications.

As the quad-core processor boosting performance, innovative Cassette increasing expandability, and ignition control bringing in-vehicle mobility, Nuvo-3000E/3000P is ready for various application requirements.

## Product Highlights

### Quad-core Superb Performance

Nuvo-3000E/3000P supports Intel® 3rd-Gen i7 processor to offer superb computing power. Its 4-cores/8-threads architecture has 233% performance increase compared to previous i7-620M processor. In addition, the integrated Intel® HD 4000 Graphics engine also significantly advances the graphics performance.



\* The CPU benchmark is performed using Passmark PerformanceTest 7 based on Win7 64bit OS.

### Intelligent Ignition Control with Adjustable On/off Delay

A common requirement for in-vehicle applications is to correlate system on/off with vehicle ignition signal and predefined delay. Nuvo-3000E/P features a SoC-based implementation that monitors the ignition signal and reacts to turn on/off the system



according to predefined on/off delay. Its built-in algorithm supports further features such as ultra-low standby power, battery-low protection, system hard-off and etc. With intelligent ignition control, Nuvo-3000E/3000P can be deployed seamlessly for a diverse range of in-vehicle applications.

### Innovative Expansion Cassette

Providing an expansion slot inside a fanless controller is easy, but the real challenge is to deal with the heat generated by add-on card. That's why we invent our patented expansion Cassette for Nuvo-3000. By creating an isolated chamber to accommodate add-on card separately, Nuvo-3000 can effectively minimize the thermal interference and maintain system stability.



This expansion Cassette also innovates a better way of cooling for add-on cards. An optional fan is the general solution for most add-on cards. Neosys also provides shaped heat-spreaders for selected cards. As the shaped heat-spreader contacts both components and surface of Cassette, the heat generated is brought out and a stable thermal condition is maintained inside Cassette. Currently shaped heat-spreader are available for

- Neosys PCIe-PoE2+/4+
- Neosys PCIe-USB380/340
- Selected nVidia graphics cards



