Unleashing Intel® 13th/ 12th Gen Hybrid Performance

Change brings advancement, and the ever-changing industrial technology is about to be revolutionized with the release of Neousys Technology Nuvo series featuring Intel® 13th/ 12th Gen processors.

Coupled with Neousys Technology’s unique thermal and mechanical engineering design, the new embedded Nuvo series are geared to optimize the Intel® processor's hybrid architecture while seamlessly incorporate AI-capability into the system.

Boasting a new platform that perfectly complements the Intel® hybrid architecture and AI, it guarantees real-world performance boosts and automatically scales to suit your application needs for efficiency. It is a revolutionary embedded computer solution that offers extraordinary results.

Intel® 13th/12th-Gen Processor

A revolutionary hybrid architecture combining performance and efficient-cores (P-core and E-core) for real-world performance gains, and autonomously scaled to match your application needs.

NVIDIA RTX™ Accelerators

The 3rd generation RTX architecture, the GeForce RTX 40 series graphics cards provides a quantum leap in performance with AI-powered capability to offer ultra fast AI data analytic processing.

Efficient Cooling

Featuring cooling designs from the ground up that include Neousys-designed independent loading mechanism (ILM) offering thorough CPU contact for non-throttling performance. There are also built-in thermal solutions for other performance components such as 5G, DDR5, and M.2 NVMe modules. In addition, Neousys’ enclosure airflow design allows for the installation of a graphics card to boost system inference computation power.

I/O Performance

Equipped with the latest in communication connectivity, the I/Os offer fast and accurate data transmission.

Ideal Upgrade

Whether upgrading or building a new solution, Neousys embedded systems are virtually impervious to environmental conditions making them the ideal embedded computer.
A Variety to Choose From
Every Application Covered

The Neousys 13th/12th Gen. platform features a comprehensive product line with systems ranging from compact dimensions to flexible expandability, and from general embedded to advanced edge AI applications.

Within the optimized platform, there are dedicated designs to meet their specific application needs while offering true wide-temperature operation and non-throttling performance to bring your automated solutions to the next level.

**Nuvo-9000**
- Supports Intel® 13th/12th-Gen Core™ up to 24C/32T
- Patented cassette for PCIe add-on card
- Rugged, -25°C to 70°C fanless operation
- Up to 5x 2.5GbE and 1x GigE ports
- Optional PoE+, supporting 9.5 KB jumbo frame
- 1x USB 3.2 Gen2x2 type-C and 6x USB 3.2 Gen2x1
- Supports M.2 Gen4x4 NVMe and 2x SATA ports
- MezIO™ interface for easy function expansion
- VGA/DVI/DP triple independent display

**Nuvo-9531**
- Supports Intel® 13th/12th-Gen Core™ up to 24C/32T
- Extreme compact 212 x 165 x 83mm dimensions
- Rugged, -25°C to 60°C fanless operation
- 4x 2.5GbE with optional PoE+
- 4x USB3.2 Gen 1 with screw-lock
- M.2 2280 Gen4x4 NVMe
- 1x hot-swappable HDD tray
- 4-CH isolated DI and 4-CH isolated DO
- VGA + DP dual display outputs
- Optional ignition power control

**Nuvo-9160GC**
- Supports Intel® 13th/12th-Gen Core™ up to 24C/32T
- Supports dual NVIDIA RTX 30 series GPUs
- Up to 64GB DDR5 4800 (2x SODIMM)
- Three x8, Gen3 PCIe slots for add-on cards
- 1x USB 3.2 Gen2x2 type-C
- 6x USB 3.2 type-A ports
- M.2 2280 M key socket (Gen4x4) for NVMe SSD
- Support 8 to 48V wide-range DC input with IGN
- MezIO™ interface for add-on expansion

**Nuvo-90501**
- Supports Intel® 13th/12th-Gen Core™ up to 24C/32T
- Compact 212 x 165 x 80 mm footprint
- Rugged, -10°C to 60°C fanless operation
- Up to 32GB DDR4 3200 SODIMM
- 2x 2.5GbE and 4x USB3.2 Gen 1 with screw-lock
- Supports 1x M.2 2280 Gen4x4 NVMe storage
- Supports 1x 3.5’/2.5’ SATA HDD/SSD
- VGA + DP dual display outputs

**Nuvo-10208GC**
- Supports Intel® 13th/12th-Gen Core™ up to 24C/32T
- Supports dual NVIDIA RTX 30 series GPUs
- Up to 64GB DDR4 4800 (2x SODIMM)
- Three x8, Gen3 PCIe slots for add-on cards
- 1x100GbE, 2x 2.5GbE and 1x1GbE
- Swappable M.2 NVMe and 2.5’ SATA HDD/SSD
- Support 8 to 48V wide-range DC input with IGN
- Rugged, -25°C to 60°C fanless operation

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- Rugged, -10°C to 60°C fanless operation
- Up to 32GB DDR4 3200 SODIMM
- 2x 2.5GbE and 4x USB3.2 Gen 1 with screw-lock
- Supports 1x M.2 2280 Gen4x4 NVMe storage
- Supports 1x 3.5’/2.5’ SATA HDD/SSD
- VGA + DP dual display outputs

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- Rugged, -25°C to 60°C fanless operation
- 4x 2.5GbE with optional PoE+
- 4x USB3.2 Gen 1 with screw-lock
- M.2 2280 Gen4x4 NVMe
- 1x hot-swappable HDD tray
- 4-CH isolated DI and 4-CH isolated DO
- VGA + DP dual display outputs
- Optional ignition power control

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### Specification Table

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Nuvo-9000 Series</th>
<th>Nuvo-9531 Series</th>
<th>Nuvo-9501 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimension (W x D x H)</strong></td>
<td>240 x 225 x 90 mm (Nuvo-9000F)</td>
<td>240 x 225 x 110 mm (Nuvo-9000G)</td>
<td>240 x 225 x 79 mm (Nuvo-9000L)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>3.56 kg (Nuvo-9000F)</td>
<td>3.65 kg (Nuvo-9000G)</td>
<td>3.65 kg (Nuvo-9000L)</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Wall-mount (standard) or DIN-rail mount (optional)</td>
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</tr>
<tr>
<td><strong>System Core</strong></td>
<td>Intel® Core™ i5-12500E/ i5-12500TE</td>
<td>Intel® Core™ i9-12900E/ i9-12900TE</td>
<td>Intel® Core™ i9-12900E/ i9-12900TE</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>Up to 64GB DDR5 4800 SDRAM</td>
<td>Up to 64GB DDR5 4800 SDRAM</td>
<td>Up to 64GB DDR5 4800 SDRAM</td>
</tr>
<tr>
<td><strong>Storage Interface</strong></td>
<td>1x M.2 (M-key)</td>
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<td>1x M.2 (M-key)</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Optional 1x PCIe x16 slot@Gen4, 8-lanes PCI/PCI Express</td>
<td>Optional 1x PCIe x16 slot@Gen4, 8-lanes PCI/PCI Express</td>
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</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-25°C to 60°C</td>
<td>-25°C to 50°C (with optional fan kit)</td>
<td>-25°C to 50°C (without optional fan kit)</td>
</tr>
</tbody>
</table>

**NOTE:** Please refer to the manufacturer’s documentation for the latest specifications and configurations.