GUSTAV ORIN NX
1024 CUDA CORES | 8 OR 16 GB RAM
GUSTAV® Jetson Orin™ Nano series modules deliver up to 40 TOPS of AI performance in the smallest Jetson form-factor, with power options between 5W and 15W. This gives you up to 80X the performance of NVIDIA Jetson Nano™ and sets the new baseline for entry-level Edge AI.

Features

- NVIDIA® Jetson AGX ORIN™ SOM
- 6 x ARM64 CPU & 1024 CUDA & 32 Tensor-Cores
- 8GB / 16GB of RAM (shared memory)
- 3 x USB 3.x connectors
- 1x 12 Volts input with Lemo Connector
- 1 x HDMI 2.1 Output
- 1x RJ-45 Ethernet (both gigabit)
- 128 – 2.000 GB SSD (M2)
- Active cooling
- Supercap 200 mF
- Quickflash for all NVIDIA® Jetpack SDK
- W: 130mm H:42.5mm D:99mm
- Optional RS232 | RS485 | CAN-BUS

GB = Gigabytes
## GUSTAV Orin NX (8 GB)

<table>
<thead>
<tr>
<th>AI Performance</th>
<th>GPU</th>
<th>GPU Max Frequency</th>
<th>CPU</th>
<th>CPU Max Frequency</th>
<th>DL Accelerator</th>
<th>DL Max Frequency</th>
<th>Vision Accelerator</th>
<th>Safety Cluster Engine</th>
<th>Memory</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 TOPS</td>
<td>1024-core NVIDIA Ampere GPU with 32 Tensor Cores</td>
<td>765 MHz</td>
<td>6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3</td>
<td>2 GHz</td>
<td>1x NVDLA v2.0</td>
<td>614 MHz</td>
<td>1 x PVA v2.0</td>
<td>-</td>
<td>8 GB 128-bit LPDDR5 102.4 GB/s</td>
<td>- (Supports external NVMe)</td>
</tr>
</tbody>
</table>

### Video Encode

<table>
<thead>
<tr>
<th>Video Encode</th>
<th>Video Decode</th>
<th>CSI Camera</th>
<th>PCIe*</th>
<th>USB*</th>
<th>Networking*</th>
<th>Display</th>
<th>Other IO</th>
<th>Power</th>
<th>Mechanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x 4K60</td>
<td>3x 4K30</td>
<td>6x 1080p60</td>
<td>12x 1080p30 (H.265)</td>
<td>1x 4K60</td>
<td>2x 4K30</td>
<td>9x 1080p60</td>
<td>18x 1080p30 (H.265)</td>
<td>1x 4K60</td>
<td>2x 4K30</td>
</tr>
</tbody>
</table>

* USB 3.2, MGBE, and PCIe share UPHY Lanes. See the Product Design Guide for supported UPHY configurations.

** Virtual Channels for Jetson Orin NX and Jetson Orin Nano are subject to change.
# GUSTAV Orin NX (16 GB)

<table>
<thead>
<tr>
<th>AI Performance</th>
<th>GPU</th>
<th>GPU Max Frequency</th>
<th>CPU</th>
<th>CPU Max Frequency</th>
<th>DL Accelerator</th>
<th>DL Max Frequency</th>
<th>Vision Accelerator</th>
<th>Safety Cluster Engine</th>
<th>Memory</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 TOPS</td>
<td>1024-core NVIDIA Ampere GPU with 32 Tensor Cores</td>
<td>918 MHz</td>
<td>8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3</td>
<td>2.0 GHz</td>
<td>1x NVDLA v2.0</td>
<td>614 MHz</td>
<td>2x NVDLA v2.0</td>
<td>-</td>
<td>16 GB 128-bit LPDDR5 102.4 GB/s</td>
<td>- (Supports external NVMe)</td>
</tr>
</tbody>
</table>

## Video Encode

- 1x 4K60 | 3x 4K30 | 6x 1080p60 | 12x 1080p30 (H.265)  
1x 4K60 | 2x 4K30 | 5x 1080p60 | 11x 1080p30 (H.264)

## Video Decode

- 1x 8K30 | 2x 4K60 | 4x 4K30 | 9x 1080p60 | 18x 1080p30 (H.265)  
1x 4K60 | 2x 4K30 | 5x 1080p60 | 11x 1080p30 (H.264)

## CSI Camera

- -

## PCIe*

- 3x USB 3.2 (Hub)  
Or 2 x USB 2.0 1 x USB 3.0 (direct to Jetson GPU Module)

## USB*

- 1x GbE

## Networking*

- HDMI 2.x

## Display

- GPIOs (Internal)

## Other IO

- 10W - 25W

## Power

- 69.6mm x 45mm  
260-pin SO-DIMM connector

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* USB 3.2, MGBE, and PCIe share UPHY Lanes. See the Product Design Guide for supported UPHY configurations.

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