The COM Express® Type 6 + GPU Embedded System from Connect Tech combines Intel® x86 processors with high-end NVIDIA® Quadro® and RTX GPUs all into a ruggedized small form factor embedded system. Choose from highest-end, highest-performance models or from low-powered extended temperature models all ideal for high-end encode/decode video applications or GPGPU CUDA® processing applications.

This embedded system exposes all of the latest generation interconnect including: Gigabit Ethernet, USB 3.0 and 2.0, DisplayPort++, VGA, LVDS, SATA III, GPIO, I2C, mSATA, miniPCIe, PCIe/104 and SD Card Expansion. This embedded system uses all locking ruggedized positive latching connectors.

VXG part numbers have Passive Heat Spreaders that are to be installed into a Customer Designed End Thermal Solution. DXG part numbers have an Active Cooling Solution with Integrated Support Frame.

VXG Series

DXG Series

**FEATURES**

- Combines High-End GPUs with Latest Generation x86 Processors in a ruggedized small form factor
- GPUs can be targeted for 4 independent display outputs OR for a headless GPU processing system utilizing CUDA cores
- System uses a building block approach: Mix and match Intel® CPUs with NVIDIA® Quadro® and RTX GPUs
- Choose from:
  - VXG part number with Passive Heat Spreaders to install into a Customer Designed End Thermal Solution
  - DXG part number with an Active Cooling Solution with Integrated Support Frame

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**Specifications**

**COM Express CPU Module Options**
- Intel® Xeon® W-11155MLE (Tiger Lake / 11th Gen, 4 x 1.8 / 3.1 GHz, 8MB cache, 25 W)
- Intel® Xeon® W-11555MLE (Tiger Lake / 11th Gen, 6 x 1.9 / 4.4 GHz, 12MB cache, 25 W)
- Intel® Xeon® W-11865MLE (Tiger Lake / 11th Gen, 8 x 2.1 / 4.5 GHz, 24MB cache, 35 W)
- Intel® Xeon® W-11155MRE (Tiger Lake / 11th Gen, 4 x 1.9 / 4.4 GHz, 8MB cache, 35 W)
- Intel® Xeon® W-11555MRE (Tiger Lake / 11th Gen, 6 x 2.1 / 4.5 GHz, 12MB cache, 35 W)
- Intel® Xeon® W-11865MRE (Tiger Lake / 11th Gen, 8 x 2.1 / 4.7 GHz, 24MB cache, 35 W)
- Intel® Core™ i3-11100HE (Tiger Lake / 11th Gen, 4 x 1.9 / 4.4 GHz, 8MB cache, 35 W)
- Intel® Core™ i5-11500HE (Tiger Lake / 11th Gen, 6 x 2.1 / 4.5 GHz, 12MB cache, 45 W)
- Intel® Core™ i7-11850HE (Tiger Lake / 11th Gen, 8 x 2.1 / 4.7 GHz, 24MB cache, 45 W)
- Intel® Xeon® E3-1505M V6 (“Kaby Lake” 7th Gen, 4 x 3.0 / 4.0 GHz, 8MB cache, 45 W)
- Intel® Xeon® E3-1505L V6 (“Kaby Lake” 7th Gen, 4 x 2.2 / 3.0 GHz, 8MB cache, 25 W)
- Intel® Xeon® E3-1515M V5 (“Skylake” 6th Gen, 4 x 2.8 / 3.7 GHz, 8MB cache, 35 W)
- Intel® Xeon® E3-1505L V5 (“Skylake” 6th Gen, 4 x 2.0 / 2.8 GHz, 8MB cache, 25 W)

**GPU Module Options**
- NVIDIA® Quadro® RTX™ 5000 – (Turing, 3072 CUDA Cores, 110W)
- NVIDIA® Quadro® RTX™ 3000 – (Turing, 1920 CUDA Cores, 80W)
- NVIDIA® Quadro® RTX™ 1000 – (Turing, 896 CUDA Cores, 50W)
- NVIDIA® RTX™ A4500 – (Ampere, 5888 CUDA Cores, 115W)
- NVIDIA® RTX™ A2000 – (Ampere, 2560 CUDA Cores, 60W)
- NVIDIA® RTX™ A1000 – (Ampere, 2048 CUDA Cores, 60W)
- NVIDIA® RTX™ A500 – (Ampere, 2048 CUDA Cores, 35W)

**COM Express Compatibility**

- COM Express® Type 6 (PICMG COM Express® COM.0 R2.1)
- mSATA (capable of SATA III)
- 2 external SATA connectors (capable of SATA III)
- 2 micro SD Card slots (from USB Host controller, with bootable option)
- I2C, SMBus, S3 Power Level Output, Reset Output

**System Interfaces**

- 8-bits (Buffered 4in/4out, +3.3V or +5V selectable)
- 2 external SATA connectors (capable of SATA III)
- 2 mSATA slots (capable of SATA III)
- 1 micro SD Card slot (from USB Host controller, with bootable option)

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www.connecttech.com
**Product Name:** COM Express® + GPU Embedded System  
**Part Number:** VXG###, DXG###

### Specifications

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<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>I/O Connector Type</strong></td>
<td>Rugged Locking Positive Latching 2mm Pitch Connectors</td>
</tr>
<tr>
<td><strong>Input Power</strong></td>
<td>Single wide input range +16V to +48V DC**</td>
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<tr>
<td><strong>Power Consumption</strong></td>
<td>Varies per VXG/DXG SKU with different CPU and GPU models</td>
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<tr>
<td><strong>Dimensions</strong></td>
<td>See online 3D Models</td>
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<tr>
<td><strong>Operating Temperature Range</strong></td>
<td>0°C to +55°C and -40°C to +85°C options available</td>
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**Note:** +12V DC input supported in some applications