

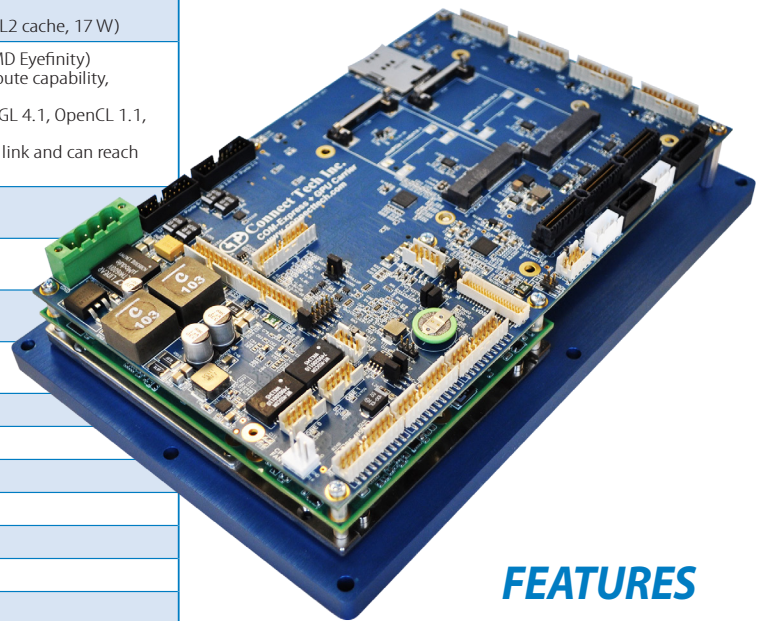
## COM Express® + GPU Embedded System

The **COM Express + GPU Embedded System** from Connect Tech combines the latest generation x86 processors with high-end Graphics Processing Units (GPU) all into a ruggedized small form factor embedded system. Choose from 4th Generation Intel® Core™ i7 or i5 (Haswell) x86 processor options and from either the AMD Radeon E6760 GPU, ideal for driving multiple displays or NVIDIA GeForce GT 745M GPU for applications that require access to CUDA Cores and the ability to GPU process complex mathematics in parallel of the on-board x86 CPU.

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 and eases the challenge of cooling multiple processors with the use of our Unified Thermal Extraction Baseplate which can be mounted directly into an enclosure or chassis for further thermal dissipation.

Specifications	
<b>COM Express CPU Module Options</b>	<ul style="list-style-type: none"> <li>Intel® Core™ i7-4700EQ (4 x 2.4 / 3.4 GHz, 6 MB L2 cache, 47 W)</li> <li>Intel® Core™ i5-4402E (2 x 1.6 GHz, 3MB L2 cache, 25 W)</li> <li>Extended Temperature Intel® Core™ i7-3517 (2 x 2.8 GHz, 4MB L2 cache, 17 W)</li> </ul>
<b>GPU Module Options</b>	<ul style="list-style-type: none"> <li>AMD Radeon E6760 (1GB GDDR5, OpenGL 4.1, OpenCL 1.1, AMD Eyefinity)</li> <li>NVIDIA GT745M (2GB GDDR5, 384 CUDA Cores, CUDA 3.0 compute capability, OpenGL 4.3, OpenCL 1.2)</li> <li>Extended Temperature AMD Radeon E6760 (1GB GDDR5, OpenGL 4.1, OpenCL 1.1, AMD Eyefinity)</li> <li>Host connection to x86 processor via the PEG/(x16 PCI Express) link and can reach Gen3 speeds (8GT/s)</li> </ul>
<b>COM Express Compatibility</b>	COM Express® Type 6 (PICMG COM Express® COM.0 R2.1)
<b>MiniPCIe Expansion</b>	2 slots (with PCIe, USB and SATA connections)
<b>PCIe/104 Expansion</b>	4 x PCIe x1 lanes 2 x SATA III (on PCIe/104 Type-2 Pins)
<b>DisplayPort++</b>	6 total - 2 outputs from COM Express, 4 outputs from GPU (Can be used for HDMI, DVI or VGA)
<b>VGA Video</b>	1 Analog CRT VGA Port
<b>LVDS Video</b>	18-24-bit LVDS
<b>Gigabit Ethernet</b>	2 x 10/100/1000 Ethernet Ports
<b>USB 2.0</b>	6 USB 2.0 Ports
<b>USB 3.0</b>	4 USB 3.0 Ports
<b>HD Audio</b>	1 stereo input, 1 stereo output
<b>RS-232</b>	3 total - 2 from PCIe UART, 1 to COM Express console port
<b>RS-485</b>	2 Ports
<b>GPIO</b>	8 -bits (Buffered 4in/4out, +3.3V or +5V selectable)
<b>Ext SATA</b>	2 external SATA connectors (capable of SATA III)
<b>mSATA</b>	2 mSATA slots (capable of SATA III)
<b>SD Card</b>	1 micro SD Card slot (from USB Host controller, with bootable option)
<b>System Interfaces</b>	I2C, SMBus, S3 Power Level Output, Reset Output
<b>I/O Connector Type</b>	Rugged Locking Positive Latching 2mm Pitch Connectors
<b>Input Power</b>	Single wide input range +12V to +48V DC
<b>Power Consumption</b>	40W typical, 100W max (see manual for detailed listing of consumption scenarios)
<b>Dimensions</b> Download 3D Model Here	219mm x 144.5mm x 45.5mm (Entire Assembly: Carrier + COMe Module + GPU + Thermal Plate)
<b>Weight</b>	1455g (Entire Assembly: Carrier + COMe Module + GPU + Thermal Plate)
<b>Thermals</b>	Unified Thermal Extraction Baseplate - 9.525mm thick Anodized Aluminum Plate
<b>Operating Temperature Range</b>	(0°C to +60°C) and (-40°C to +85°C) options available

**Product Name:**  
COM Express® + GPU Embedded System  
**Part Number:** VXG001

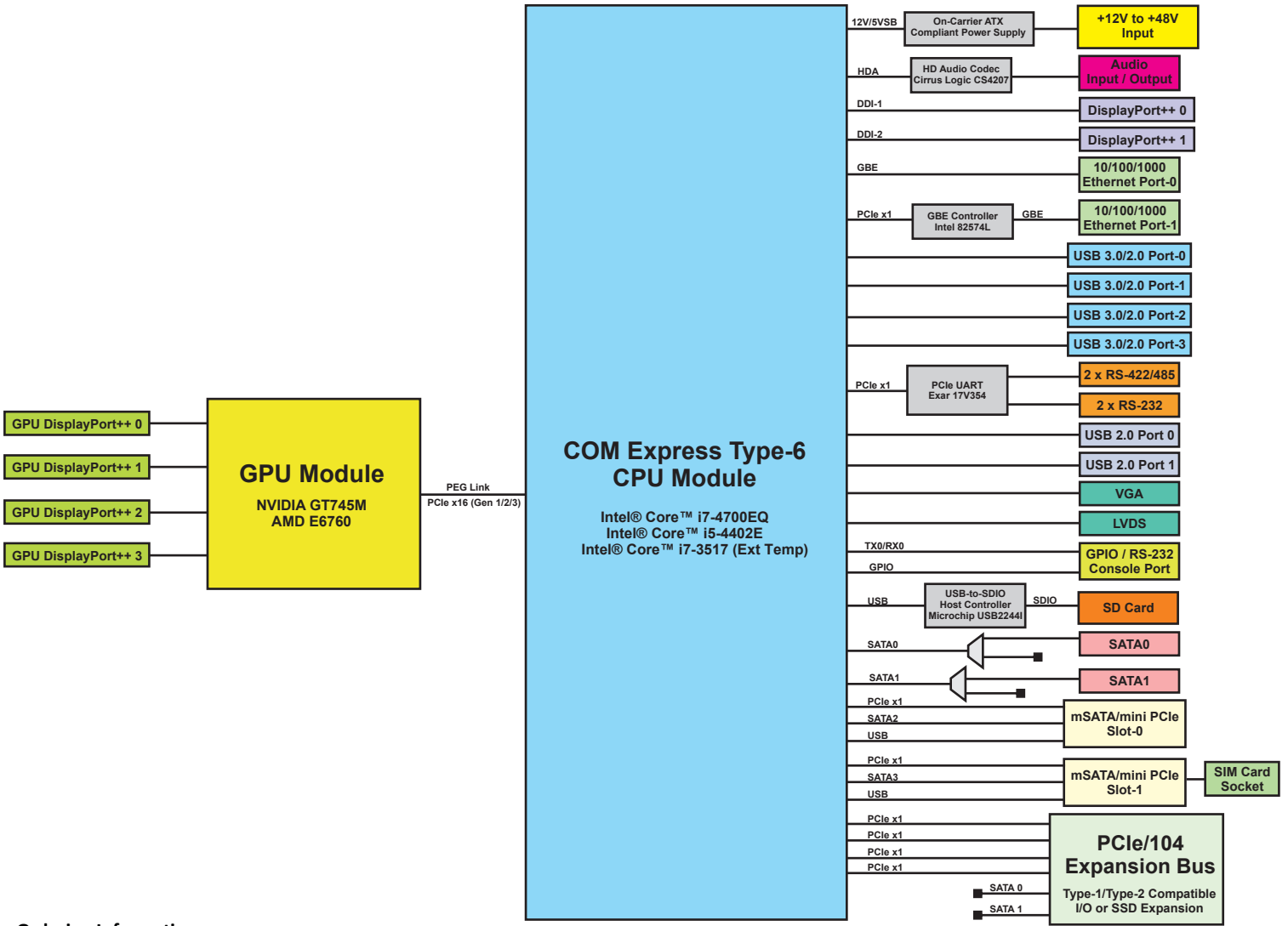
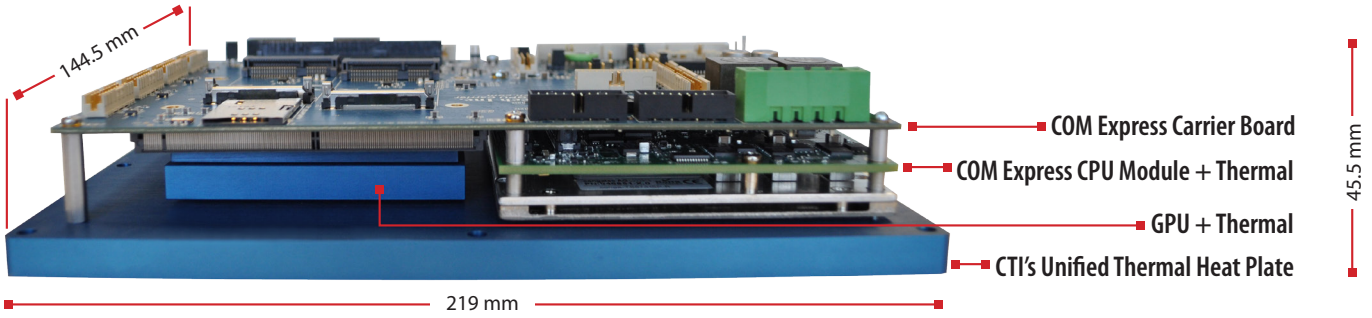


## FEATURES

- ✓ 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
- ✓ All thermal extraction points from COM Express and GPU are brought out to a single unified plane

# COM Express + GPU

**Product Name:** COM Express® + GPU Embedded System  
**Part Number:** VXG001



## Ordering Information

Part Number	CPU	GPU	Temperature Range
VXG001	Intel® Core™ i7-4700EQ, 8GB DDR3L	AMD Radeon E6760	0°C to +60°C
VXG002	Intel® Core™ i7-4700EQ, 8GB DDR3L	NVIDIA GT745M	0°C to +60°C
VXG003	Intel® Core™ i5-4402E, 8GB DDR3L	AMD Radeon E6760	0°C to +60°C
VXG004	Intel® Core™ i5-4402E, 8GB DDR3L	NVIDIA GT745M	0°C to +60°C
VXG005	Intel® Core™ i7-3517, 8GB DDR3	AMD Radeon E6760	CPU -40°C to 85°C GPU -10°C to +70°C
VXG006	Intel® Core™ i7-3517, 8GB DDR3	NVIDIA GT456M	CPU -40°C to +85°C GPU -10°C to +70°C

Note: Other CPU and memory options available upon request

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