



COM Express® Tegra K1

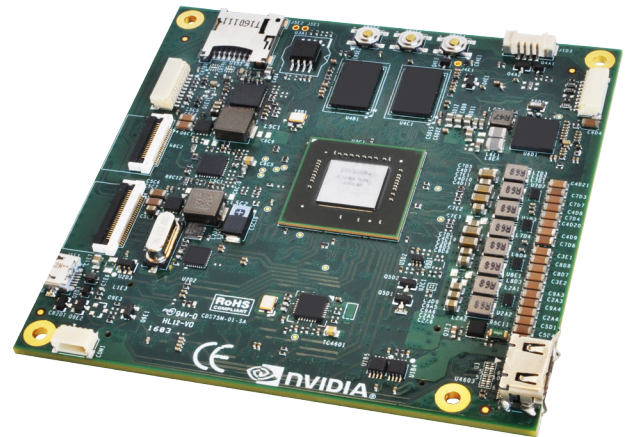
This COM Express® product is based on the NVIDIA® Tegra K1 SoC. It is compliant with the COM Express® Type 6 pinout, provides advanced CUDA-computing capability, edge graphics APIs, breakthrough performance with low-power, and is ideal for small form factor and embedded market systems.

The NVIDIA® Tegra K1 (TK1) contains 192 supercomputer-class GPU cores with the NVIDIA® 4-Plus-1™ 2.3GHz quad-core ARM® Cortex™-A15 CPU. The CMG601 delivers 325 GFLOPS computing power with a low 15 Watt energy level.

This product is designed to be deployed with a COM Express® Type 6 carrier board. The COM Express® Tegra K1 is able to operate at a commercial temperature of 0°C to 55°C or extended -20°C to 70°C (two models), yielding high reliability and capability for applications requiring faster performance but are SWaP-constrained in harsh environments.

*PCIe functionality is available with custom carrier design.

Product Name: COM Express® Tegra K1
Part Number: CMG601



FEATURES

- ✓ **Small Form Factor: 95mm x 95mm (3.74" x 3.74")**
- ✓ **2x MIPI CSI, 1x GbE, 1x SATA, 1x micro SD, 5x USB 2.0, 1x USB 3.0, 4x UARTS**
- ✓ **15 watts max (+12VDC)**
- ✓ **Ubuntu 14.04 LTS Operating System**

Specifications	
Processor	NVIDIA® Tegra K1 (TK1) 4-Plus-1 ARM® Cortex A15 "r3"
Bus Type	COM Express® Type 6
CUDA Core	192
Memory Size	2GB DDR3L
Memory Clock (MHz)	933
Memory Interface Width	64-bit
Operating System	Ubuntu 14.04 LTS
Display	HDMI 1.4B - Maximum resolution: 3840x2160 30Hz eDP 1.4 - Maximum resolution: 3200 x 2000 60Hz Single Channel LVDS - 1920 x 1200 60Hz
I/O	2x MIPI CSI 1x GbE 1x SATA(3Gb/s) 1x micro SD slot 5x USB2.0 Host Ports(1 for OTG) 1x USB3.0 Host Port 4x UARTs(1x 1.8V and 3x 3.3V tolerance) 4x GPI, 4x GPO 1x HD Audio or 1x I2S *PCIe functionality available with custom carrier design
Power Consumption	15 Watts maximum (+ 12VDC)
Thermal	Heat Spreader
Dimensions	95mm x 95mm (3.74" x 3.74")
Operating Temperature	TK1: 0°C to 55°C (32°F to 131°F) TK1-B: -20°C to +70°C (-4°F to 158°F)
Storage Temperature	-40°C to 125°C (-40°F to 257°F)
Operating Humidity	10-90%, no condensation
Mass Storage	16GB eMMC 4.51 Flash 1x serial SATA interface (3Gb/s) 1x micro SD slot

