CUDA 3U Starter Kit
19" Starter Cage with SBC and GPU

Features

- CUDA-capable NVIDIA Graphics Processor
- 16-lane PCI Express
- Intel® Penryn 2.26 GHz Core™2 Duo
- GS45 Northbridge
- 2 GB DDR3 SDRAM
- 120 GB rotary hard disk
- Dual DVI and VGA output
- 5-slot chassis (3 spare slots)
- External PCI Express cabling for flexible system configuration

The CUDA 3U Starter Kit is intended to allow engineers a quick and easy start up with a CUDA-based system, either for evaluation and benchmarking or to develop a specific application. Containing all the hardware that is needed to begin development, customers can immediately begin loading their chosen operating system on the delivered equipment.

NVIDIA drivers and CUDA SDK are delivered on CD for Wind River Real Time Linux®, Concurrent Red Hawk real time Linux, Red Hat, SuSE, Windows® XP, Windows Vista.

In addition to NVIDIA's CUDA C extensions, the platform supports other programming models including PhysX, OpenCL and Microsoft®'s latest DirectX SDK.

The starter cage is 7U high and 84HP wide. The cage includes two fans for reliable airflow and is equipped with 6U rear I/O transition modules for each of the boards. A hard disk and a DVD are installed.

The power supply delivers 650W. Output voltages are +3.3V, ±5V and ±12V. The power supply units are protected against short circuit as well as against overload.

EMC shielding and power supplies according to CE regulations are included. The housing is manufactured from anodized aluminum with chromate surfaces on all contact areas to allow for low impedance connections.

For more information on GE Intelligent Platforms' CUDA-based products and resources, visit our web site at www.ge-ip.com/cuda.

The boards included in the Starter Kit are:

GRA111 3U VPX GRAPHICS BOARD Featuring a CUDA-capable NVIDIA graphics processing unit

SBC341 3U VPX SINGLE BOARD COMPUTER Featuring 2.26 GHz Intel Core2 Duo

Additional 3U VPX boards may be added to the starter cage to build more complex solutions.

SBC330 3U VPX SINGLE BOARD COMPUTER Featuring Freescale 8641D PowerPC

GBX410 3U VPX GIGABIT ETHERNET SWITCH Featuring 16 port layer 2 / layer 3 line speed switching fabric

SDD911 SERIAL ATA DISK MODULE Featuring 120 GB rotary hard disk, plus 4-lane PCIe dual Gigabit Ethernet controller

PEX430 3U VPX PCI EXPRESS SWITCH PMC/XMC CARRIER

CUDA 3U Starter Kit

Specifications

GPU
- CUDA-capable NVIDIA graphics processor
- 16-lane PCI Express
- Two channels DVI-I output

Single Board Computer
- 2.26 GHz Intel SP9300 Core2 Duo
- 2 Gbytes DDR3 SDRAM
- 4x USB 2.0
- Gigabit Ethernet
- 2x RS-232 serial comms

Disk Storage
- 120 Gbytes rotary hard drive

Chassis
Frame
- Anodized and/or chromate coated aluminum
- Fan plug-in unit
- Dimensions corresponding to IEC 60297-3 and DIN 41494-Part 5

Form Factor
- 7U height
- 84HP width

Backplanes
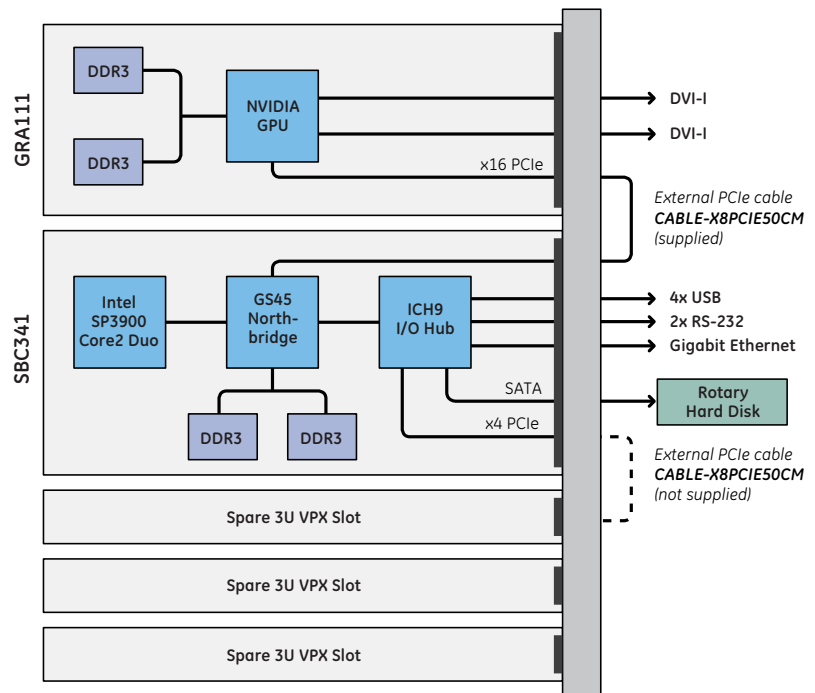- 5-slot 3U VPX
- 1" pitch slot width

Rear I/O
- Each board has rear transition module to break out into standard commercial connectors

Temperature
- Operating Temperature: 0°C to +40°C
- Storage temperature: -20°C to +65°C
- Humidity (non-condensing): 5% - 95%

Block Diagram

Ordering Information

Part number	Description
SC-S-CUDA3USK1	3U VPX Based CUDA Starter Kit

The CUDA starter kit comprises the following items:

SC-784UN05VPXA3U	Starter Cage with 5-slot 3U VPX backplane
SBC341-142003	3U VPX Single Board Computer; Intel Penryn 2.26 GHz, 2 GB DDR3 SDRAM, BIOS. 1" pitch
SBC340RTM-13	Rear Transition Module
GRA111-10003	3U VPX Graphics Board with CUDA-capable NVIDIA Graphics Processor. 1" pitch
GRA110RTM-13	Rear Transition Module
CABLE-X8PCIE50CM	50CM PCI Express Cable
SATA Cable	SATA Data Cable
ARACC-3DVID2	Cable Assembly, DVI-D to DVI-D (2M)

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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