

DPX[®]-G5400E

PCI Express[®] Graphics Card



Features

- S3 Graphics Chrome 5400E
- PCI Express[®] v2.0
- Direct X 10.1, OpenGL 3.0
- VGA and HDMI Outputs
- Long production availability



Introduction

The Advantech-Innocode DPX[®]-G5400E is a long-lifecycle, embedded PCI Express x16 graphics card that is ideal for adding extra graphics performance to Advantech-Innocode gaming platforms. The card offers the high performance of a discrete GPU, combined with a guaranteed production lifecycle of at least 5 years and low power consumption.

The full speed PCI Express v2.0 card uses the S3 Graphics Chrome 5400E graphics engine which supports Microsoft[®]DirectX[®] 10.1, OpenGL 3.0. The card can be used with the DPX[®]-S410 and other compatible Advantech-Innocode platforms to provide three or four monitors.

Feature Summary

Long production availability guarantee.
> 5 years from Q2 2009.

S3 Chrome 5400E Embedded ASIC

Low profile format

512 MB GDDR3 dedicated frame buffer

DVI-I and HDMI video outputs

Low power consumption

PCI Express x16 v2.0

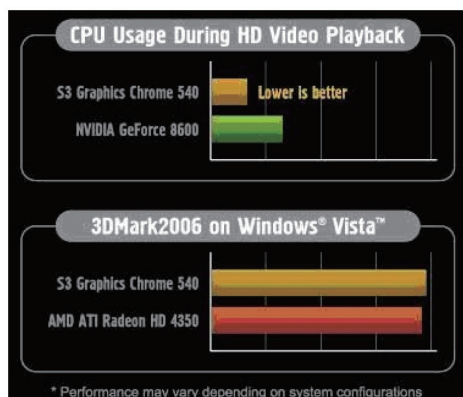
GPU Core Clock 825 MHz

Memory Clock 1400 MHz

Direct X 10.1, Open GL 3.0

ChromotionHD[™] 2.1 Video Technology allows true HD quality playback for HD content

Video Outputs	DVI - Single/Dual-link DVI up to 2560x1600 Hot-plug detection
	HDMI/HDCP - support with CEA-861B On-chip key storage for HDCP Integrated HD Audio controller and codec
	CRT output on DVI-I port - 10-bit up to 2048x1536 @75Hz
PCI Express 2.0 / 1.1 Compliant	Gen 2 leverages PCIe 2.0 upstream and downstream bandwidth of 5.0 Gbps
GDDR3 Memory Interface	512 MB local video memory w/GDDR3 at a peak memory bandwidth of up to 1.7 Gbps @ 1400MHz. 64-bit memory width
AcceleRAM Technology	Up to 512MB shared system main memory augments local frame buffer video memory
High Definition Programmable Video Engine	H.264, MPEG-2 HD, WMV9-HD, and VC-1 acceleration
	Support for Protected Video Playback
	DirectX-VA 2.0 compatible
	Per pixel motion adaptive de-interlacing, noise removal, cadence detection and correction
	Gamma correction and white/black point enhancement
	4x4 programmable kernel filter video scaling
	Microsoft Video Mixing Renderer (VMR 7, 9) support
	ArtisticLicense [™] real-time video effects: de-blocking, sharpening, embossing, neon-edges, & softening



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DX10.1 Unified Shader Architecture – Shader Model 4.1	Full 128bit precision (32bit floating-point per component) in hardware throughout the pipeline
	Fully programmable unified Vertex, Geometry, and Pixel Shaders with dynamic load balancing
	Dual execution mode Geometry Shaders (vertical/horizontal)
	Soft shadow, volumetric texture, & Single pass cube mapping
	Optimized MSAA 4x
	Fast Clear technology – ultra fast zero cycle clear
	Optimized shadow map and shadow volume acceleration with two-sided stencil
	Advanced texture formats, including RGBE9:9:9:5, depth & stencil. Texture rendering up to 8k x 8k
	Extensive texture filtering, including 128-bit FP texture filtering for HDR, full tri-linear filtering for up to 16x high quality advanced anisotropic filtering (AF); bicubic and sRGB filtering
	Lossless Z-compression & Optimized Z-buffer write and read
	Optimized advanced shading dependency read pipelines
	Programmable depth shader

Duo-Rotate™	Displays can be independently rotated (90°, 180°, 270°)
	Rotation acceleration for 3D, 2D, & media playback
Environment	Operating Temperature: 0 – 50 °C
	Storage Temperature: -20 – 85 °C
Approvals	EMC: CE, FCC Class A RoHS, WEEE
Dimensions	Low profile-ready PCI-e x16 card
	168 x 79 mm (without bracket)

Benefits

High performance discrete graphics card
Long lifecycle
Embedded driver support
Up to 4 monitors with DPX®-S Series gaming boards

Optional Hardware

DPX® platforms for gaming
Full system chassis
DPX®-IRC Range Reel controllers
Audio Amplifier modules
Compact Flash, SSD storage devices

OEM Customization and Product Development

- Advantech-Innocode specializes in the fields of PC-based hardware design and software development. Our in-depth knowledge and global resources make us your ideal partner.
- Advantech-Innocode is part of the Advantech Co., Ltd. Group of Companies.
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