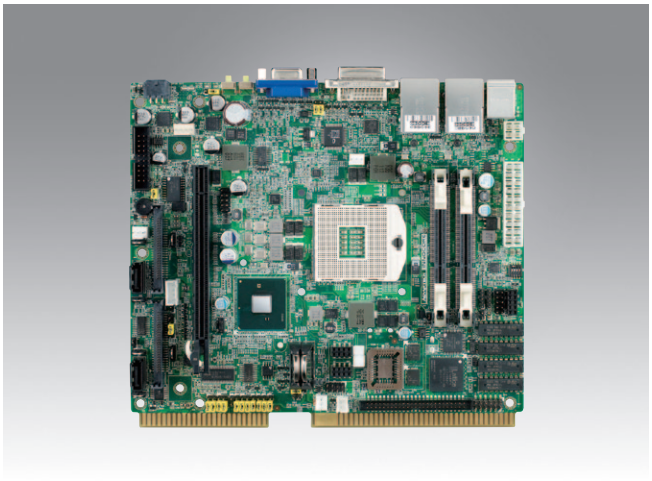
DPX®-S425

Intel® Core™ i5, Core i7 Gaming Platform



Features

- Very high performance Intel® platform
- Comprehensive gaming features
- High performance integrated or PCI-Express graphics
- Low power consumption
- Small format

Introduction

The DPX®-S425 is a ground breaking computer platform from Advantech-Innocore. The DPX®-S425 is the first gaming board to use the revolutionary Intel® single chip architecture and Core™ i5 and Core™ i7 CPUs for the most demanding, compute-intensive environments. A full feature set of I/O, COMs and security designed specifically for gaming devices is also included on the board. The board is backed by Innocore's usual guaranteed long production life and backward compatible both mechanically and in the software API with the DPX®-S410 series.

Specifications

System	Mobile Intel Core i5, i7 and Celeron performance
	Intel HM55 Embedded chipset
	High performance chipset graphics core – Intel GMA HD with up to 1GB shared video RAM.
	Max. 8GB DDR3 SDRAM
	2 x Gigabit Ethernet LAN
	2 x Compact Flash, 2 x CFast™, 2 x SATA DOM sockets Sound (on-board 3 channel amp)
	4 MB SRAM, 1 MB ROM, EEPROM
I/O	5 x RS232
	2 x CCTalk/RS232
	2 x RS232/TTL
	1 x RS232/485
	12 x USB 2.0
	GPIO
	32 inputs and 32 outputs
Video	Embedded Chipset Intel GMA HD
	Dual independent monitor support (on-board)
	Full speed PCI-Express X16 v2.0 slot to support a range of PCI-Express graphics cards; ATi®, Nvidia®, S3 Graphics
	Dual, triple and quad independent monitor
Security	TPM security device on board
	iButton® option
	Intrusion switch inputs
	BIOS customisation
Software	Edge-to-edge drivers and API/SDK
	Range of Advantech-Innocore software products for Gaming

CPU/Chipset	Mobile Intel Core i5, i7 and Celeron performance: Up to 2.66GHz, 4MB of Intel® Smart Cache Intel® Turbo Boost Technology Intel® Hyper-Threading Technology (2 Cores, 4 threads) Low power operation (CPU up to 38W including GMA and DRAM controller)
	Intel HM55 chipset. Embedded/long lifecycle chipset and CPUs
	High performance chipset graphics – Intel GMA HD
Memory	2 x SO-DIMM socket, 8GB Max
	800 MT/s (PC3-6400), and 1066 MT/s (PC3-8500)
	64bit OS and RAM in excess of 4GB
BIOS	AMI PCI/PnP/ACPI BIOS
	BIOS Flash can be write protected
	Fast boot option. "No user menu" option
Video	Integrated (Chipset) Embedded GMA HD DVMT (shared video RAM) up to 1GB DirectX® 10.0, Shader Model 4.0, Open GL 2.1 Hardware acceleration for H.264,VC-1, and MPEG-2 decode
	PCI-Express x16 v2.0 slot A range of PCI-Express graphics cards from ATi, Nvidia, S3 Graphics
	multiple displays with Hybrid
Video Ports	Primary:- VGA
	Secondary:- Analog VGA or Digital DVI (DVI-I)
	PCI-E graphics card installed. Dependent on PCI-E adapter card:
LAN 1, 2	Gigabit Ethernet
	Full duplex operation
	Wake-On-LAN capability

See overleaf for continued specification
Last updated : 10-Sep-2014

Specifications Cont.

SATA Controller	2 x SATA 3 Gbps ports
	Power header for SATA DOM support
Compact Flash	2 x CompactFlash Type I/II headers (Flash/MicroDrive)
CFast™	2x CFast connectors on underside
Ports	5 x RS232
	2 x CCTalk/RS232
	2 x RS232/TTL
	1 x RS232/485
	12 x USB 2.0
	Keyboard/Mouse on-board
	2 x I2C ports on board headers
iButton/GPIO	Bi-Directional, programmable GPIO header for iButton, special purpose device or security module
I/O	32 ESD protected inputs
	32 OC Outputs (500mA, 50V)
	Meter Connect Sensing up to 6 meters
Sound	Onboard 13W+13W+13W class D audio amp with FL + FR + LF speaker connectors
	6 channel Line level outputs
	Stereo line in, SPDIF (Digital) audio in/out
ROM	1MB EPROM/OTPROM PLCC32 socket (PCI, Bootable)
SRAM On-Board	4096kB fast SRAM (2 banks) on PCI bus
	Battery state software readable

Security	TCPA/TPM 1.2 compliant security device
Watchdog Timer	Programmable time-out of 1-1024 seconds
EEPROM	Serial EEPROM for storage of serial numbers, data, security keys. 32 KB (option for larger)
Intrusion Detection	Six Intrusion detection input lines
	Operates with and without system active
	Logs date/time of last 48 events
	Logs system resets/brownouts as events
	EEPROM backup for 10 years retention
System Health Monitoring	Measurement of CPU core temp. With thermal trip. PWM fan for CPU. Monitoring up to 3 fans.
Power Fail Detect	External sensor input for advanced warning of AC power fail
Expansion	1) Up to 240 Bytes of PCI-based I/O expansion available through DirectPCI + interface on board header.
	2) PCI-Express x16 graphics card
Power	ATX or AT mode, typical 45-65W
Environment	Operating Temperature: 0 – 50 °C
	Storage Temperature: -20 – 85 °C
Approvals	EMC: CE, FCC Class A RoHS, WEEE
Dimensions	170 x 200mm (6.7 x 7.9")

All product specifications are subject to change without notice .

Optional Accessories

- Full System chassis
- Range of PCIe graphics cards
- I/O Connector breakout board
- iButton Carrier
- DPX-IRC Range Reel controllers
- Audio Amplifier modules
- Compact Flash, SATA DOM, SSD storage devices

Benefits

- Best-in-class integrated and expandable graphics capabilities
- Low Power
- Single board solution
- Edge connector for I/O
- Small size – 170 x 200 mm (6.7 x 7.9")
- Long Life Cycle
- Designed for the Gaming Industry
- Meets GLI and other regulatory standards
- Backward compatible with DPX-S410, 112

OEM Customization and Product Development

- Advantech-Innocore 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-Innocore is part of the Advantech Co., Ltd. Group of Companies.
- Specifications subject to change. E&OE.
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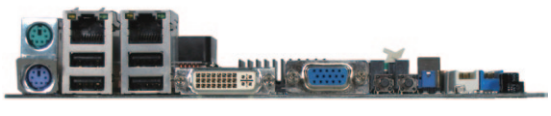
Front I/O



Rear I/O