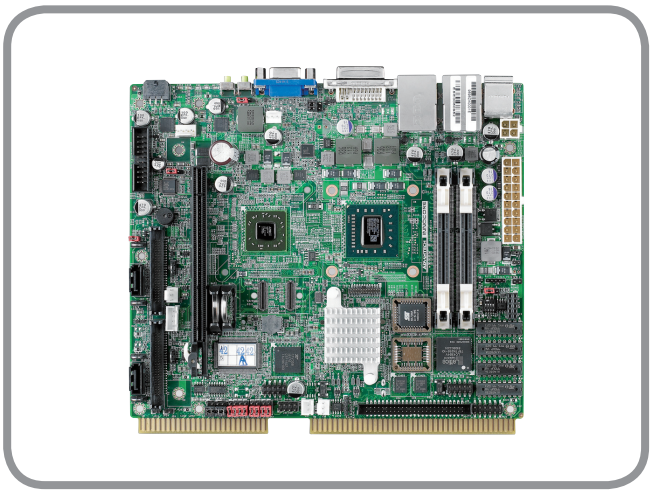
DPX®-S415

AMD® Athlon™ II Neo, Turion™ II Neo Gaming Platform



Features

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

Introduction

The DPX®-S415 is the latest, highly integrated industrial single board computer from Advantech-Innocore. The DPX®-S415 offers unrivalled performance, long lifecycle and low power with AMD's Athlon X2 and Turion Neo processors and includes lightning fast chipset graphics (Radeon HD4270). A full feature set of I/O and COMs designed specifically for gaming devices is also included on the board and it is backward compatible both mechanically and in the software API with the DPX®-S410 series.

Feature Summary

System	Mobile AMD Athlon II X2, Turion II X2 Neo performance
	AMD 785E Embedded chipset
	High performance chipset graphics Radeon HD4270
	Max. 8GB DDR3 SDRAM
	2 x Gigabit Ethernet LAN
	2 x Compact Flash 2 x SATA DOM sockets
	2 x CFast™ (Option)
	Sound (on-board 3 channel amp)
	2 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 Radeon HD4270
	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 AMD Athlon X2 Neo, Turion X2 Neo performance
	Up to 2.2GHz HT3 CPUs
	Very low power operation (CPU 8 to 25W)
	AMD 785E chipset. Embedded/long lifecycle chipset and CPUs
	Highest performance chipset graphics – Radeon HD4270
Memory	2 x SO-DIMM socket, 8 GB Max
	DDR3 up to 800 MHz (1600 MT/s)
	64 bit OS and RAM in excess of 4 GB
BIOS	AMI PCI/ PnP/ ACPI BIOS
	BIOS Flash can be write protected
	Fast boot option. "No user menu" option
Video	Integrated (Chipset) Embedded Radeon HD4270 DirectX® 10.1-compliant, Shader Model 4.1,Open GL 2.0 Dedicated UVD (Unified Video Decoder) 2.0 hardware 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 ATI Crossfire
Video Ports	Primary: Analog VGA (15 pin D-Sub)
	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
SATA Controller	2 x SATA 6Gbps ports
	Power header for SATA DOM support

Compact Flash	2 x CompactFlash Type I/II headers (Flash/MicroDrive)
CFast™ (Option)	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 (4 with over-current detect)
	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 (500 mA, 50 V)
	Meter Connect Sensing up to 6 meters
Sound	Onboard 13 W+13 W+13 W 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	2048 kB fast SRAM (2 banks) on PCI bus
	Battery state software readable (Option 4 MB)
Security	TCPA/TPM 1.2 compliant security device

Watchdog Timer	Programmable time-out of 1-255 seconds
	"Always on" design (default 255 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")

Optional Hardware

- Full System chassis
- Range of PCI-E graphics cards
- I/O Connector breakout board
- iButton Carrier
- Compact Flash, SATA DOM, SSD storage devices

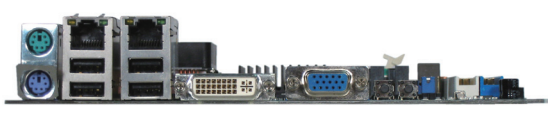
Benefits

- High performance integrated and expandable graphics capabilities
- Low Power (CPU power between 8 W and 25 W)
- 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
- Low Cost

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.
-
-
-

Front I/O



Rear I/O