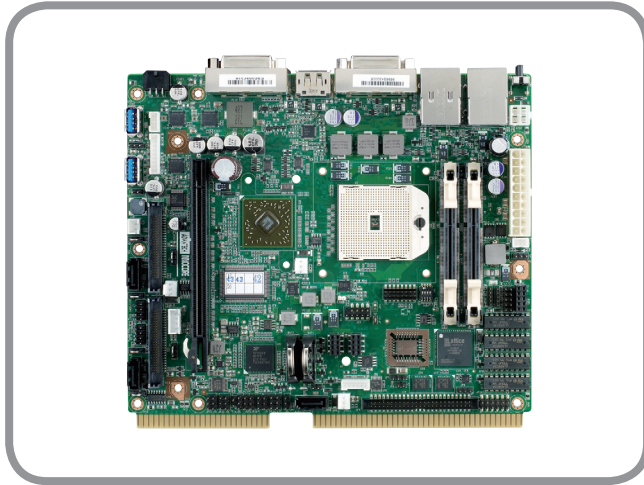# DPX®-S430

AMD® Embedded R-Series (Fusion) Gaming Platform

Features

- Very high performance AMD platform
- Comprehensive gaming features
- High performance integrated or PCI-Express graphics
- Easy integration for gaming applications
- Quad monitor supported
- VESA DisplayPort v1.2 supported

Introduction

The DPX®-S430 is a complete integrated gaming platform on one board. AMD's latest Fusion chipset on the DPX®-S430 consists of a choice of several high performance APUs with "Discrete-level Graphics". The integrated graphics core out-performs many discrete graphics ASICS and represents a significant step up in what chipset graphics can do. Furthermore the chipset graphics can output to 4 independent monitors and supports DisplayPort 1.2 daisy-chaining topology whereby two monitors are be driven from one DisplayPort output. A full feature set of I/O and COMs designed specifically for gaming devices is also included making the DPX®-S430 an ideal integrated platform for many high end gaming, amusement and kiosk applications.

Feature Summary

System	AMD Embedded R-Series Low Power Dual and Quad Core APUs
	Highest performance chipset graphics system
	DDR3-1600, 2 SODIMMs
	2 x Gigabit Ethernet LAN
	2 x Compact Flash sockets, 2 x C-Fast™ sockets, 2 x SATA DOM sockets
	Audio (on-board 3 channel amp)
	4096 kB SRAM (NVRAM), 1MB ROM, EEPROM
I/O	10 x Serial Ports (RS232/TTL/CCTalk/RS485)
	4x USB 3.0, 8 x USB 2.0
	GPIO/iButton®
	32 inputs and 32 outputs (6 Meter outputs with disconnect detect)
Video	Integrated – AMD next generation "Devastator" Radeon 7000 Series Direct X 11 Graphics core
	Dual, triple and Quad monitor support
	Full speed PCI-Express X16 v2.0 slot to support a range of PCI-Express graphics cards; AMD, Nvidia®, S3 Graphics
Security	TPM security device on board
	Intrusion switch inputs (6 dedicated)
	BIOS customization
	1 x iButton® socket
	1 x Security ROM socket
Software	Edge-to-edge drivers and API/SDK.
	Code portability through consistent API with other Advantech-Innocore boards.
	Range of Advantech-Innocore software products for gaming

CPU/Chipset	AMD R-Series Dual and Quad Core APUs
	AMD A75 FCH
Memory	2 x SODIMM sockets
	Up to 16GB DDR3 -1600 MT/s SDRAM
BIOS	AMI APTIO UEFI BIOS
	BIOS can be write protected
Video Ports	2 x Analog VGA (15 pin D-Sub)*
	2 x DVI-D (MicroCross™)
	1 x DisplayPort v1.2 with 5.4Gb/s link speed and daisy chaining
LAN	2 x Ethernet Gigabit LAN
	Full duplex operation
	Wake-On-LAN capability
Storage	2 x CompactFlash Type I/II (Flash/MicroDrive)
	2 x C-Fast™ socket on underside
	3 x SATA 3 for HDD, SSD or SATA DOM
Ports	5 x RS232 Serial, 16550 compatible
	2 x CCTalk/RS232
	2 x RS232/TTL
	1 x RS232/485
	12 x USB (2 USB 3.0 and 2 USB 2.0 on front panel, 6 USB 2.0 and 2 USB 3.0 on board headers)
	2 x I2C on board header
	Audio out (SPKR, SPDIF, line out, line in)
iButton/GPIO	Bi-Directional, programmable GPIO header for iButton®, special purpose device or security module

*VGA#2 and DVI-D#2 Option - TBC

Innovations in Gaming Computing

Discrete I/O	32 ESD protected inputs
	32 OC Outputs (500mA, 50V)
	(of which 6 I/O ports can be configured as meter outputs with disconnect detect)
Sound	HD Audio
	On board 13W + 13W + 13W Class D audio amps with FL, FR, LF speaker connections
Security ROM	1 x Socket for 1MB EPROM/OTPROM PLCC32 (PCI, Bootable)
SRAM	4096kB fast SRAM (2 banks) on PCI bus
	Battery state software readable
TPM	TCPA/TPM 1.2 compliant security device on board.
Watchdog Timer	Programmable time-out of 1-255 seconds
	"Always on" design (default 255 seconds)
EEPROM	32kB user EEPROM (option for larger)
Intrusion Detection	Six Intrusion detection input lines
	Operates with and without system active
	Logs date/time of last 254 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 APU.
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
Environment	Operating Temperature: 0 ~ 50° C TBC
	Storage Temperature: -20 ~ 85° C
Approvals	EMC: CE, FCC Class A
	RoHS, WEEE
Dimensions	170 x 200 mm (6.7 x 7.9")

Optional Hardware

Full system chassis
Range of PCI-Express graphics cards
I/O connector breakout board
Edge card connector set
Compact Flash cards, SATA DOM, SSD storage devices
iButtons®, iButton carrier

Benefits

Best in class integrated and expandable graphics
Single integrated solution
Designed for the Gaming Industry
Backwards compatible with DPX®-S series boards
Small size
Low power
Long lifecycle

OEM Customization and Product Development

- Advantech-Innocore is part or the Advantech Co., Ltd. Group of Companies.
- 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.
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Front I/O

Rear I/O