DPX®-SC710

AMD® Embedded R-Series Gaming Platform

Features

- AMD Embedded R-Series Dual and Quad core APUs
- Versatile ConnectBus® backplane architecture
- Comprehensive gaming features
- High performance integrated graphics and PCI-Express graphics module (MXM)
- Up to 10 monitors supported

Introduction

The DPX®-SC710 is a complete integrated gaming platform consisting of an easily serviceable CPU cassette housed in a rugged logic box with a backplane. AMD's embedded R-Series chipset provides a choice of high performance dual and quad core APUs with "Discrete-level Graphics". The chipset graphics (AMD Radeon HD7000 series) can output to 4 independent monitors and supports DisplayPort 1.2. In addition the MXM graphics card slot allows the DPX-SC710 to be fitted with a selection of discrete high performance graphics modules. The MXM slot ensures the system is "future proof"; ready for the next generation of graphics technology. A full feature set of I/O and COMs designed specifically for gaming devices is also included making the DPX-SC710 an ideal integrated platform for many high end gaming, amusement and kiosk applications.

Feature Summary

System	Rugged "logic box" system includes pluggable CPU cassette housed in a secure enclosure
	All cable connections are made through the backplane
	3rd Generation ConnectBus® architecture - Easily customized backplane
	Removable CPU cassette for easy install, service and maintenance
	AMD Embedded R-Series Dual and Quad Core APUs
	Long life cycle 5 years availability
	DDR3-1600, 2 SODIMMs up to 16GB
	2 x Gigabit Ethernet LAN
	HD Audio 7.1 channel
Video (Integrated)	Integrated – AMD Radeon 7000 series graphics engine
	Dual, triple and quad monitor support from APU
	DVI-D x2, DP v1.2 x1
	Incl. one DP v1.2 with MST (multi-monitor, daisy chain) support
	Direct X 11, OpenGL 4.2, OpenCL, DirectCompute support
	UVD3 Multimedia hardware decode and encode
Video (Discrete)	Full speed PCI-Express X16 MXM v3.0 slot to support optional high performance graphics cards; AMD Radeon E6000 series, Radeon E8000 series, Nvidia®.
	Field or factory upgradeable
	DVI-D x2, DP x2, (depending on MXM card used)
Security	TPM security device on board
	Intrusion switch inputs (8 dedicated)
	BIOS customization
	1 x iButton® socket (option)
	1 x Security ROM socket
	Lockable logic box (accepts most casino specified locks)

Software	Edge-to-edge drivers and Software API/SDK.
	Code portability through consistent API with other Innocore boards
	Range of Advantech-Innocore software products for Gaming
CPU/Chipset	AMD Embedded R-Series FS1r2 Accelerated Processing Unit (APU)
	Dual and Quad Core APUs up to 2.7GHz (3.2GHz Turbo)
	Up to 4MB L2 cache
	Low power (35W) APUs
	AMD A75 FCH
Memory	2 x SODIMM sockets
	Up to 16GB DDR3 1600 MT/s SDRAM system RAM
BIOS	AMI APTIO UEFI BIOS
	BIOS can be write protected
LAN	2 x Ethernet Gigabit LAN
	Full duplex operation
	Wake-On-LAN capability
Storage	2 x C-Fast™ sockets
	Drive bay for 2.5" format HDD or SSD.
	2 x SATA 3 (up to 6Gb/s) headers for HDD, SSD or SATA DOM
	1 x eSATA front access
Ports	3 x RS232 Serial, 16550 compatible
	2 x CCTalk/RS232
	2 x RS232/TTL
	1 x RS232/485
	14 x USB (2x USB 3.0 on front panel, 1x USB 3.0 + 4x USB 2.0 on board headers, 7x USB 2.0 on backplane)
	2 x I²C, 1x SPI interfaces through backplane
	24 channel LED drive output

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Specifications Cont.

iButton/GPIO	Bi-Directional, programmable GPIO header for iButton, special purpose device or security module
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, 1 port 24V DC high current drive for solenoid drive)
LED drive	8 channel LED Intelligent PWM output driver, 256 brightness levels, programmable group brightness, blinking, (8 ch. with 350mA)
Sound	HD 7.1 channel Audio
SRAM (NVRAM)	4096kB fast SRAM (2 banks)
	Battery state software readable
TPM	TCPA/TPM 1.2 compliant security device on board.
Watchdog Timer	Programmable time-out
EEPROM	32kB user EEPROM (option for larger)
Asset Tag	Unique serial number devices on motherboard and backplane
Intrusion Detection	8x 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 control for APU, MXM, system fans, and 2 other fans through backplane.
Diagnostic LED display	Dual 7- segment LED display for POST and diagnostic codes
Power Fail Detect	External sensor input for advanced warning of AC power fail
Expansion	1) 2 x I2C, SPI
	2) PCI-Express x16 MXM format graphics card
Power	12V DC single input
	Intelligent power control
	Cassette/Backplane "insertion-sense" and protection for accidental cassette removal
Environment	Operating Temperature: 0 ~ 50° C TBC
	Storage Temperature: -20 ~ 85° C
Approvals	EMC: CE, FCC Class A
	RoHS, WEEE
Dimensions (D x W x H)	254 x 235 x 221 mm (10.0" x 9.25" x 8.70")

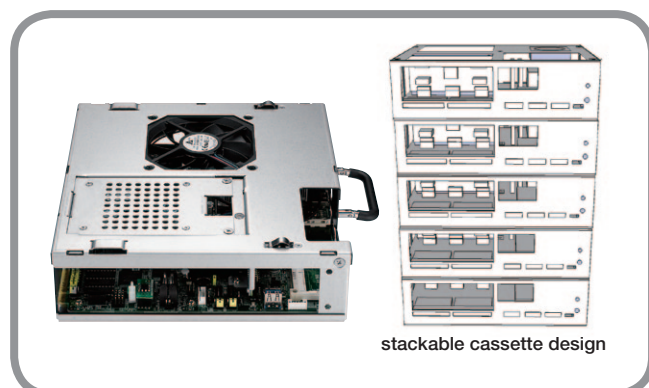All product specifications are subject to change without notice .

Optional Hardware

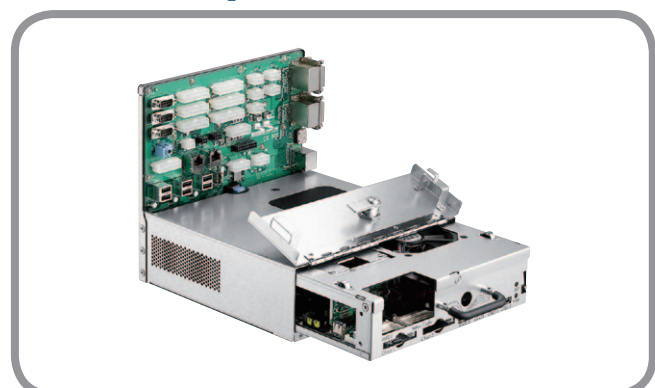| |
|---|
| Range of PCI-E MXM graphics cards |
| Compact Flash cards, SATA DOM, SSD storage devices |
| iButtons®, iButton carrier |

Benefits

Best in class integrated and expandable graphics
Single integrated solution
Designed for the Gaming Industry
Serviceable CPU cassette and backplane
Small size
Low power
Long Lifecycle

OEM Customization and Product Development

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▪ 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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CPU Cassette

stackable cassette design

DPX-SC710 System

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