DPX®-SC710

AMD® Embedded R-Series Gaming Platform

Features

- Very high performance AMD platform
- 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 fully passive backplane and I/O expansion module. AMD's latest embedded 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		Security	TPM security device on board
	All cable connections are made through the passive backplane			Intrusion switch inputs (8 dedicated)
				BIOS customization
	3rd Generation ConnectBus® architecture - Easily customized passive backplane (and backplane I/O expansion module, "BSM")			1 x iButton® socket (option)
				1 x Security ROM socket
	Removable CPU cassette for easy install, service and maintenance			Lockable logic box (accepts most casino specified locks)
	AMD Embedded R-Series Dual and Quad Core APUs		Software	Edge-to-edge drivers and Software API/SDK.
	Long life cycle 5 years availability			Code portability through consistent API with other Innocore boards
	DDR3-1600, 2 SODIMMs up to 16GB			
	2 x Gigabit Ethernet LAN			Range of Advantech-Innocore software products for Gaming
	HD Audio 7.1 channel			
Video (Integrated)	Integrated – AMD Radeon 7000 series graphics engine		CPU/Chipset	AMD Embedded R-Series FS1r2 Accelerated Processing Unit (APU)
	Dual, triple and quad monitor support from APU			Dual and Quad Core APUs up to 2.7GHz (3.2GHz Turbo)
	Three DP++ interfaces support DisplayPort, DVI, HDMI and VGA			Up to 4MB L2 cache
	Incl. one DP v1.2 with MST (multi-monitor, daisy chain) support			Low power (35W) APUs
				AMD A75 FCH
	Direct X 11, OpenGL 4.2, OpenCL, DirectCompute support		Memory	2 x SODIMM sockets
				Up to 16GB DDR3 1600 MT/s SDRAM system RAM
	UVD3 Multimedia hardware decode and encode		BIOS	AMI APTIO UEFI BIOS
				BIOS can be write protected
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		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

Innovations in Gaming Computing
All product specifications are subject to change without notice
www.advantech-innocore.com
See overleaf for continued specification
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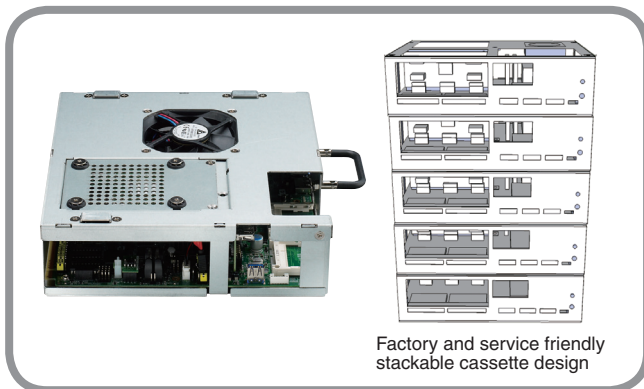|			
Ports	3 x RS232 Serial, 16550 compatible	**Intrusion Detection**	8x Intrusion detection input lines
	2 x CCTalk/RS232		Operates with and without system active
	2 x RS232/TTL		Logs date/time of last 254 events
	1 x RS232/485		Logs system resets/brownouts as events
	14 x USB (2x USB 3.0 on front panel, 1x USB 3.0 + 4x USB 2.0 on board headers, 7x USB 2.0 on backplane)		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.
	2 x I²C, 1x SPI interfaces through backplane		
	24 channel LED drive output	**Diagnostic LED display**	Dual 7- segment LED display for POST and diagnostic codes
iButton/GPIO	Bi-Directional, programmable GPIO header for iButton, special purpose device or security module	**Power Fail Detect**	External sensor input for advanced warning of AC power fail
Discrete I/O	32 ESD protected inputs	**Expansion**	1) 2 x I2C, SPI
	32 OC Outputs (500mA, 50V)		2) PCI-Express x16 MXM format graphics card
	(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)		3) Backplane I/O Expansion module (BSM) provides customizable expansion (e.g LED PWM drive, custom high current output, eeprom etc)
LED drive	24 channel LED Intelligent PWM output driver, 256 brightness levels, programmable group brightness, blinking, (8 ch. with 350mA, 16 ch. 100mA)	**Power**	12V DC single input Intelligent power control Cassette/Backplane "insertion-sense" and protection for accidental cassette removal
Sound	HD 7.1 channel Audio	**Environment**	Operating Temperature: 0 ~ 50° C TBC
SRAM (NVRAM)	4096kB fast SRAM (2 banks)		Storage Temperature: -20 ~ 85° C
	Battery state software readable	**Approvals**	EMC: CE, FCC Class A
TPM	TCPA/TPM 1.2 compliant security device on board.		RoHS, WEEE
Watchdog Timer	Programmable time-out	**Dimensions (D x W x H)**	254 x 235 x 191 mm (10.0" x 9.25" x 7.5")
EEPROM	32kB user EEPROM (option for larger)		
Asset Tag	Unique serial number devices on motherboard and main chassis (BSM)		

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 passive backplane
Small size
Low power
Long Lifecycle

OEM Customization and Product Development

- Advantech-Innocore is part of 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.

- Specifications subject to change. E&OE.

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CPU Cassette

Factory and service friendly stackable cassette design

DPX-SC710 System