DPX®-S2445

High Performance Intel® Multi-Screen Gaming Platform

Features

- Rugged logic box design
- Security and access to meet the requirement of the gaming industry
- Dual and Quad Core Intel CPUs from Celeron to Core i7
- Full gaming features set
- High performance integrated Intel GPU or PCI-Express graphics
- Support for up to 150W ¾ length double-width graphics cards
- $12V_{DC}$ or ATX power supply compatible
- "Futureproof" removable I/O shield design allow upgrade to future DPX-S motherboards, Easy service SSD/HDD module

Introduction

The DPX-S2445 is a complete gaming system combining the unrivalled performance of Advantech-Innocore's DPX-S445 motherboard with the convenience of the new DPX-S2000 enclosure. The DPX-S2445 system has a card slot bay for a PCI-Express graphics card that is wide enough for today's high powered double- width graphics cards giving the customer the ability to upgrade from the integrated graphics or add more monitors (up to 7 or more). For mass storage the system includes a quick release carrier with shock mounting for solid state disk or hard drive.

Specifications

System	Intel® Embedded Dual and Quad Core CPUs – Celeron, Pentium, Core i3, i5, i7 up to 2.9GHz (3.8GHz)	LAN	2 x Ethernet Gigabit LAN
	Long lifecycle 5+ years availability		Full duplex operation
	DDR4-2400, 2 SODIMMs up to 32GB total RAM		Wake-On-LAN capability
	2 x Gigabit Ethernet LAN	Storage	2 x SATA 3.0 for HDD, SSD or SATA DOM
	2 x SATA/SATA DOM sockets (SATA 3.0, 6Gbps)	Ports	5 x RS232 Serial, 16550 compatible
	Audio (on-board 3 channel amp)		2 x CCTalk/RS232
	8192 kB SRAM (NVRAM), 32kB EEPROM		1 x RS232/TTL
Video (integrated)	Integrated performance chipset graphics system (Intel GT2-530)		1 x ID003/TTL/RS232
	Direct X 12, Open GL 4.4, UVD vc, H.265		1 x RS232/485
	Triple monitor support from APU		11 x USB (3 x USB 3.0/ 2.0)
	3 x DisplayPort DP+ v1.2 with 5.4Gb/s link speed and daisy chaining		2 x I2C on board header (one protected)
Video (expansion)	Full speed PCI-Express X16 (full x16) Gen 3 slot		Audio out - SPKR (left, right and LF), line out 5.1 channels
Security	TPM security device on board	iButton/GPIO	Two Bi-Directional, programmable GPIO header for iButton, special purpose device or security module
	Intrusion switch inputs (8 dedicated)	Discrete I/O	32 ESD protected inputs
	BIOS customization		32 OC Outputs (500mA, 50V)
	iButton® interface (2 x 1-wire ports) support for external iButton reader)		(of which 8 I/O ports can be configured as meter outputs with disconnect detect)
	Precision secure Real time clock device	Audio (line level)	HD 5.1 Audio - Front I/O jack connectors for: FL, FR, CE, LFE, RL, RR
	Protected I2C port		On-board connector for Line in L&R, MIC In, SPDIF in, SPDIF Out, Jack detect
	Security ROM support		Headphone connector
Software	Edge-to-edge drivers and API/SDK	Audio (amplified)	On board 15W + 15W + 15W (FL, FR, LF) Class D audio amps with bass boost
	Code portability through consistent API with other Advantech-Innocore boards	SRAM (NVRAM)	8192 KB fast SRAM (2 banks) on PCI bus
	Range of Innocore software products for Gaming		Battery state software readable
CPU/Chipset	Intel 6th/7th Gen. Dual and Quad Core CPUs	TPM	TCG/TPM 2.0/1.2 compliant security device on board
Memory	2 x SODIMM sockets	Watchdog Timer	Programmable time-out
	Up to 32GB DDR4 -2400 MT/s SDRAM	EEPROM	32kB user EEPROM (option for larger)
BIOS	AMI APTIO UEFI BIOS with support for legacy boot devices	Asset Tag	Unique API readable serial number
	BIOS can be write protected		
	BIOS / Expansion ROM module – field removable /verifiable		

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Specifications Cont.

Intrusion Detection	8x Intrusion detection input lines (one used for enclosure)
	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. Configurable smart fan control for CPU and System fan
Power Fail Detect	External sensor input for advanced warning of AC power fail
Expansion	2 x I2C, 2 x 1-Wire PCI-Express x 16 graphics card

Power	12VDC single input or ATX12VDC v2.3 or newer power supply Intelligent power control
Environment	Operating Temperature: 0 ~ 40 °C
	Storage Temperature: -20 ~ 85 °C
Approvals	EMC: CE, FCC Class A
	RoHS, WEEE
Dimensions	260 (W) x 214 (L) x 124 (H) mm (10.2" x 8.4" x 4.9")

All product specifications are subject to change without notice.

Optional Accessories

Range of PCI-E graphics cards
I/O connector breakout board (horizontal and vertical options)
Edge card connector set
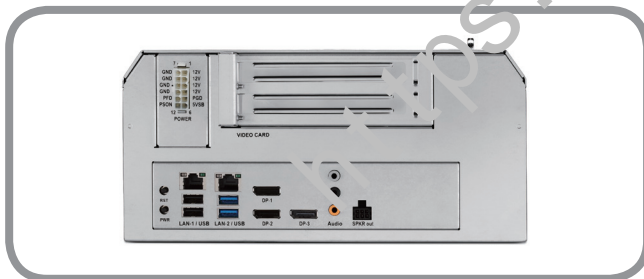SATA DOM, SSD storage devices
iButtons®, iButton carrier

Benefits

High performance Intel CPU and Chipset
Single integrated solution
Designed for the Gaming Industry
Backwards compatible with DPX-S series boards
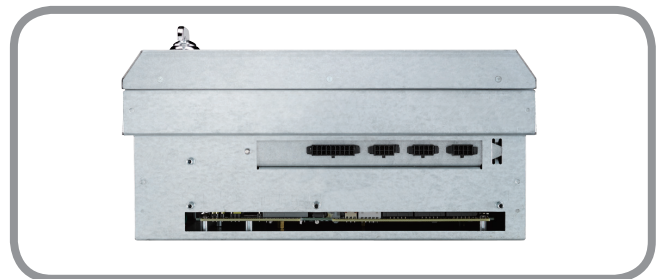Open architecture expansion via PCI-E x16 slot
Long Lifecycle

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.

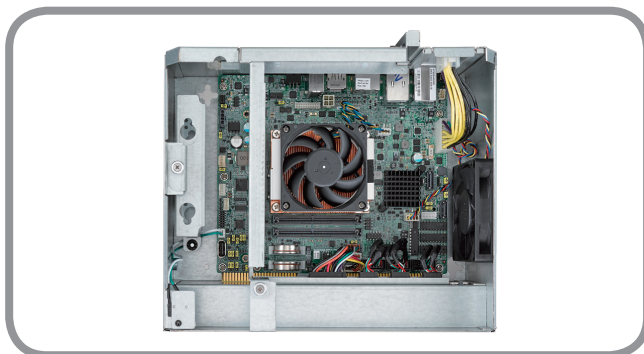▪ Specifications subject to change. E&OE.

Front View

Rear View

Inside View

Rear View (optional vertical connector board installed)

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