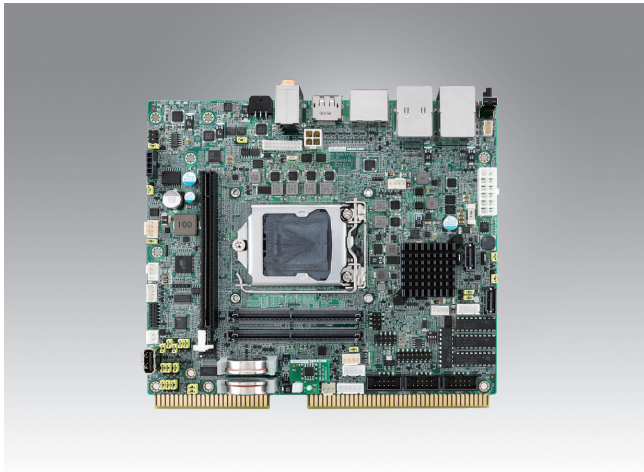# DPX®-S445

6/7th Generation Intel® Core™ Gaming platform

Features

- Very high performance Intel platform
- Dual and Quad Core CPUs from Celeron to Core i7
- Comprehensive gaming features
- High performance integrated or PCI-Express graphics
- Easy integration for gaming applications
- Full featured Driver API for IO and security

Introduction

Intel's 6th and 7th generation Core i CPUs make the DPX-S445 the highest performance gaming platform available and suitable for the most demanding applications. The integrated graphics core (Intel GT2-530) offers significant performance increases over previous generations and the standard PCI-Express x16 Gen. 3 graphics card slot allows the S445 to support today's latest discrete graphics cards for stunning gaming graphics. A full feature set of I/O and COMs designed specifically for gaming devices is also included making the DPX®-S445 an ideal integrated platform for many high end gaming, amusement and kiosk applications.

Specifications

System	Intel® 6th / 7th Generation Core™- i Dual and Quad Core CPUs- Celeron, Pentium, Core i3, i5, i7
	Long life cycle 5 years availability
	DDR4-2400, 2 SODIMMs up to 32GB
Video (Integrated)	Integrated – High performance chipset graphics Intel GT2-530
	Triple monitor support from CPU
	Three DP++ interface support DisplayPort v1.2
	Direct X 12, OpenGL 4.4, OpenCL 2.2, Vulkan, UVD v6, H.265
Video (Expansion)	Full speed Gen 3 PCI-E graphics expansion slot Simultaneous operation of integrated and PCI-E card graphics
Security	TPM security device on board
	Intrusion switch inputs (8 dedicated)
	BIOS customization
	iButton® interface (2x 1-wire ports) support for external iButton reader
	Precision secure Real time clock device
	Protected i²c port
	1 x Security ROM socket
Software	Windows 10, Linux, Legacy Windows 7 (WES7) support on Core i 6th Gen. CPUs
	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	Intel 6th/7th Generation Dual and Quad Core CPUs: Core i5, i7 up to 2.9 GHz (3.8 GHz Turbo) Core i3, Pentium and Celeron options
	Intel Q170 PCH
Memory	2 x SODIMM sockets
	Up to 32GB DDR4 2400 MT/s SDRAM system RAM

BIOS	AMI APTIO UEFI BIOS with support for legacy boot devices
	BIOS can be write protected
	BIOS/ expansion ROM module – field removable/ verifiable
LAN	2 x Ethernet Gigabit LAN
	Full duplex operation
	Wake-On-LAN capability
Storage	2 x SATA 3 (up to 6Gb/s) headers for HDD, SSD or SATA DOM
Ports	5x RS232 (2x fully featured, 3x Tx/Rx/RTS/CTS)
	2 x CCTalk/RS232
	1 x TTL/RS232
	1 x ID003/TTL/RS232
	1 x RS485/RS232
	11 x USB (3x USB 3.0/2.0)
	2 x I²C port
iButton/GPIO	Two Bi-Directional GPIO headers for iButton, special purpose device, security module
Discrete I/O	32 ESD protected inputs
	32 OC Outputs (500mA, 50V)
	Of which 8 I/O ports can be configured as meter outputs with disconnect detect
Sound	HD 5.1 audio with amplified outputs 15W/ch (FL, FR, LFE) with bass boost
	Front I/O panel jack connectors for: FL, FR, CE, LFE, RL, RR. On-board header for: Line In L & R, MIC In, SPDIF In, SPDIF Out (x2), Jack detect. 4 pin headphone connector
SRAM (NVRAM)	Up to 8MB battery backed fast SRAM
	Battery state software readable
TPM	TCPA/TPM 2.0/1.2 compliant security device on board.
Watchdog Timer	Programmable time-out
EEPROM	32kByte user EEPROM (option for larger)

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Specifications Cont.

Asset Tag	Unique API readable serial number
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 CPU fan, GPU fan, 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 x16 Graphics card.
Power	12V DC single input or ATX v2.3 power supply Intelligent power control
Environment	Operating Temperature: 0 ~ 50° C TBC
	Storage Temperature: -20 ~ 85° C
Approvals	EMC: CE, FCC Class A
	RoHS, WEEE
Dimensions (excl. golden fingers)	200mm (W) x 170 mm (L) (6.7" x 7.9")

All product specifications are subject to change without notice .

Optional Hardware

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

Benefits

Best in class CPU performance
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.

- Specifications subject to change. E&OE.

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Front I/O

Rear I/O

DPX-S2445 Integrated Gaming System

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