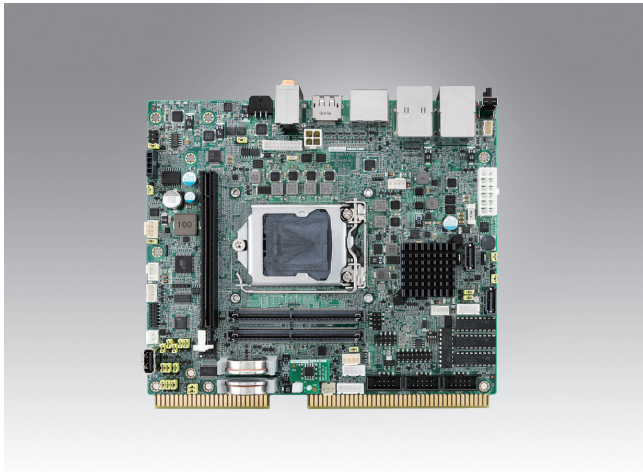


# DPX<sup>®</sup>-S445

## 6/7th Generation Intel<sup>®</sup> Core<sup>™</sup> 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 <sup>®</sup> 6th / 7th Generation Core <sup>™</sup> - 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	BIOS	AMI APTIO UEFI BIOS with support for legacy boot devices BIOS can be write protected BIOS/ expansion ROM module – field removable/ verifiable
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	LAN	2 x Ethernet Gigabit LAN Full duplex operation Wake-On-LAN capability
Video (Expansion)	Full speed Gen 3 PCI-E graphics expansion slot Simultaneous operation of integrated and PCI-E card graphics	Storage	2 x SATA 3 (up to 6Gb/s) headers for HDD, SSD or SATA DOM
Security	TPM security device on board Intrusion switch inputs (8 dedicated) BIOS customization iButton <sup>®</sup> interface (2x 1-wire ports) support for external iButton reader Precision secure Real time clock device Protected i <sup>2</sup> c port 1 x Security ROM socket	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 I <sup>2</sup> C port
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	iButton/GPIO	Two Bi-Directional GPIO headers for iButton, special purpose device, security module
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	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
Memory	2 x SODIMM sockets Up to 32GB DDR4 2400 MT/s SDRAM system RAM	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)

## 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
System Health Monitoring	EEPROM backup for 10 years retention
	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 I <sup>2</sup> C , 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

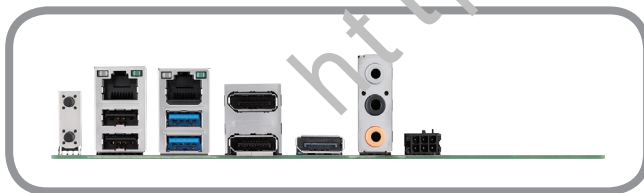
## Benefits

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 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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## Front I/O



## Rear I/O

