

DPX®-E145

11th Generation Intel® Core™ Gaming Platform

Preliminary



Features

- 11th Generation Intel® Core™ SOC CPUs
- CPUs up to Dual 3.0 (3.9) GHz, Quad core 2.8GHz (4.4) GHz
- Intel Iris Xe integrated graphics
- Four 4k monitor support
- Comprehensive gaming features
- Passive cooled system up to 28W
- 12V DC single input or ATX power



Introduction

The DPX®-E145 is a completely integrated system for gaming applications. Based on the newest 11th generation Intel Core embedded platform, the DPX-E145 provides a complete PC platform with a passive cooling system. The system uses Intel's revolutionary high performance dual and quad core SOC devices with "Discrete-level Graphics" from the integrated Intel Iris Xe graphics core. Four independent monitors are supported via DisplayPort 1.2 DP++ ports. A full feature set of I/O and COMs designed specifically for gaming devices is also included making the DPX-E145 an ideal integrated platform for gaming, amusement and kiosk applications.

Specifications

System	11th Gen. Intel® Core™ Dual and Quad Core CPUs
	Long life cycle 7 years availability
Video (Integrated)	Dual channel RAM up to DDR4 3200 MT/s
	Non-ECC, 2 SODIMMs up to 64GB total
Security	Integrated Intel Iris Xe series graphics engine (i5, i7)
	Intel UHD graphics (i3, Celeron)
Software	Quad monitor support from CPU
	Four DP++ interfaces support DisplayPort 1.2
CPU/Chipset	Direct X 12, OpenGL 4.5, OpenCL 2.2 support
	TPM security device on board
Memory	Intrusion switch inputs (8 dedicated)
	BIOS customization
BIOS	iButton® socket and external iButton reader support
	Precision secure Real time clock device
LAN	Edge-to-edge drivers and Software API/SDK
	Code portability through consistent API with other Advantech-Innocode boards
Storage	Range of Advantech-Innocode software products for Gaming
	11th Gen. Intel® Core™. Dual Core CPUs up to 3.0GHz (turbo to 3.9GHz), Quad core up to 2.8 (4.4) GHz up to 12 MB Intel Smart Cache
Ports	28W Max. CPUs
	2 x SODIMM sockets
iButton/GPIO	Up to 64GB DDR4 3200 MT/s SDRAM system RAM non-ECC support
	32 x Ethernet Gigabit LAN
Discrete I/O	Full duplex operation
	Wake-On-LAN capability
Audio	PXE boot option

Storage	2 x C-Fast™ sockets
	2 x SATA 3 (up to 6Gb/s) headers for HDD, SSD or SATA DOM
Ports	Secure, easy access tray for 2.5" SSD drive
	1x M.2 form factor up to 2280 size modules, 4 lane PCI-e Gen 4 interface. NVMe support
iButton/GPIO	4 x RS232 (2 x fully featured, 2 x Tx/Rx/RTS/CTS)
	2 x CcTalk
Discrete I/O	1 x TTL
	1 x ID003/TTL
Audio	1 x RS485
	9 x USB (2 x USB 3.0)
SRAM (NVRAM)	2 x I²C port
	Bi-Directional GPIO header for two iButton devices, special purpose device, security module
TPM	32 ESD protected inputs
	32 OC Outputs (500mA, 50V)
Watchdog Timer	Of which 8 I/O ports can be configured as meter outputs with presence detect
	HD 5.1 audio with stereo amplified outputs 20W/ch
EEPROM	8MB battery backed fast SRAM
	Battery state software readable
Asset Tag	TCPA/TPM 2.0 compliant security device on board.
	Programmable time-out
Intrusion Detection	32kB user EEPROM (option for larger)
	Unique API readable serial number
System Health Monitoring	8x Intrusion detection input lines
	Operates with and without system active
Intrusion Detection	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 system fans

Specifications Cont.

Power Fail Detect	External sensor input for advanced warning of AC power fail
Expansion	I ² C, 1-wire, M.2
Power	12V DC single input or ATX power supply Intelligent power control, scheduled power up, event log, system health monitoring

Environment	Operating Temperature: 0 ~ 50 °C, airflow TBC Storage Temperature: -20 ~ 85 °C
Approvals	EMC: CE, FCC Class A RoHS, WEEE
Dimensions	200mm (W) x 270mm (L)

Optional Accessories

CFast™, M.2 cards, SATA DOM, SSD storage devices

iButtons®

Short Cover - logic area secure cover

Software Products

SecureBoot SDK

DPX Connector SDK

DPX Diagnostics

DPX SAS Engine

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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Benefits

Performance integrated graphics- Four 4K monitors

Single integrated solution

Designed for the Gaming Industry

"Cabinet-ready" connectors

Small size

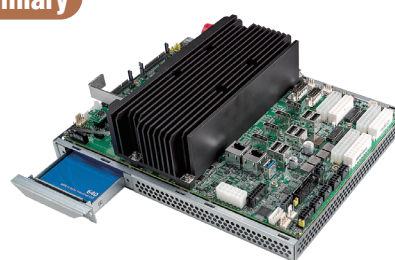
Long Lifecycle

Preliminary



DPX-E145 shown with logic area cover

Preliminary



DPX-E145 shown without logic area cover

Preliminary



DPX-E145 board with active cooler