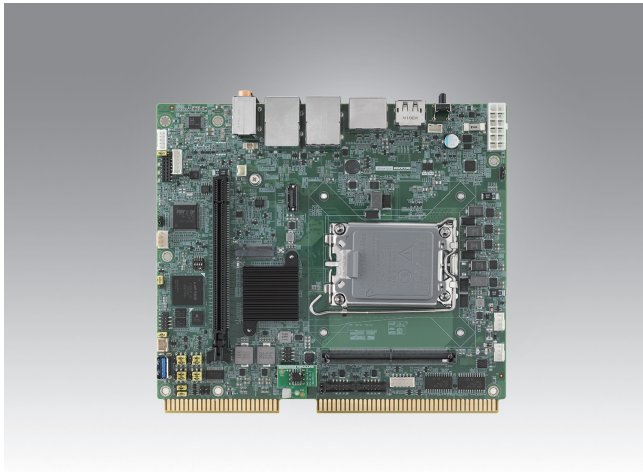


DPX[®]-S455

Intel[®] 12,13 & 14th Generation Core™ Gaming Platform



Features

- Very high-performance Intel Hybrid Multi-core CPUs
- CPUs up to i9 24 Core
- Three independent monitors
- PCIe x16 graphics card slot
- Comprehensive gaming features
- 12V DC single input or ATX power
- Full featured driver API for I/O and security



Introduction

The DPX[®]-S455 is the latest addition to the proven DPX-S series of integrated gaming platforms. Based on the Intel scalable desktop platform, the DPX-S455 uses latest high-performance CPUs with Hybrid core technology up to Core i9. Three independent monitors are supported via DisplayPort 1.4 DP++ ports. For higher performance stunning games the standard PCI-Express x16 graphics card slot allows the S455 to support today's latest graphics cards. A full set of I/O, COMs and security features designed specifically for gaming devices is also included, making the DPX-S455 an ideal performance integrated platform for many gaming and amusement applications.

Specifications

System	12,13 & 14 th Gen. Intel [®] Core™ CPUs up to i9 Long life-cycle 7 years availability RAM up to DDR5-4800/5600 MT/s, non-ECC, 1 SODIMM up to 48GB
Video (Integrated)	Integrated Intel [®] UHD Graphics 770 driven by Xe ^e Architecture Three monitor support from CPU Three DP++ interface support DisplayPort v1.4a Direct X 12, OpenGL 4.6, Open CL 2.2 support
Video (Expansion)	PCIe Gen. 5 graphics expansion slot x16 slot Simultaneous operation of integrated and PCIe card graphics
Security	TPM security device on board Intrusion switch inputs (8 dedicated) BIOS customization iButton [®] connector for external iButton reader support Option Precision secure Real time clock device Protected I ² C port
Software	Edge-to-edge drivers and Software API/SDK. Code portability through consistent API with other Advantech boards. Range of Advantech software products for gaming applications
CPU/Chipset	Core i3/i5/i7/i9 up to 24 core (16P/8E/32T) 1.1 (4.8) GHz, 24 MB L2, 30MB L3 cache, 35W Celeron [®] and Pentium [®] dual core (2P/0E/4T) to 3.1GHz, 2.5 MB L2, 6MB L3 cache, 35W Intel H610E chipset
Memory	1 x SODIMM socket Up to 48GB DDR5 4800/5600 MT/s SDRAM system RAM

BIOS	AMI APTIO UEFI BIOS BIOS can be write protected BIOS module with expansion ROM support
LAN	2 x Ethernet Gigabit LAN Full duplex operation Wake-On-LAN capability
Storage	1 SATA 3.0 (up to 6Gb/s) header for HDD, SSD or SATA DOM 1x M.2 form factor up to 2242 size module, 4 lane PCIe interface. NVME support
Ports	5 x RS232 (2 x fully featured, 3 x Tx/Rx) 2 x CCTalk/RS232 1 x TTL/RS232 1 x ID003/TTL/RS232 1 x RS485/RS232 9 x USB (6 x USB 2.0, 3 x USB 3.0/2.0) 2 x I ² C ports (one protected) Audio out - line out 5.1 channels
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 all I/O ports can be configured as meter outputs with disconnect detect
Audio (line level)	HD 5.1 audio (line level) Front I/O panel jack connectors for: FL, FR, CE, LFE, RL, RR. On-board header for: Line In L & R, MIC In R & L, SPDIF Out (x1), Jack detect. Headphone out
MRAM (NVRAM)	8MB fast MRAM (default) Option for 16MB
TPM	TCPA/TPM 2.0 compliant security device on board
Watchdog Timer	Programmable time-out
EEPROM	32kByte user EEPROM (option for larger)
Asset Tag	Unique ID, API readable serial number

Specifications Cont.

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 and system fan.
Power Fail Detect	External sensor input for advanced warning of AC power fail

Expansion	I ² C, PCI-Express x16 Graphics card, iButton®
Power	12V DC single input or ATX v2.3 power supply Intelligent power control
Environment	Operating Temperature: 0 ~ 50 °C Storage Temperature: -20 ~ 85 °C
Approvals	EMC: CE, FCC Class A RoHS, WEEE
Dimensions (Excluding golden fingers)	200mm (W) x 170 mm (L) (6.7" x 7.9")

Benefits

- Intel X^e integrated graphics and PCIe x16 for discrete graphics card
- Single board integrated solution
- Designed for the gaming industry and markets
- Backwards compatible with DPX-S series boards
- Small size
- Low power
- Long life-cycle

Optional Accessories

- M.2, SATA DOM, SSD storage devices
- iButtons®, iButton reader
- Full system Chassis
- Range of PCIe graphics cards
- I/O connector breakout boards
- Edge card connector set

Software Products

- Media Validation SDK
- DPX Connector SDK
- DPX Diagnostics
- DPX SAS Engine
- MS Windows Embedded licenses

OEM Customization and Product Development

- Advantech Gaming is part of the Advantech Co., Ltd. Group of Companies.
- Advantech Gaming 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

