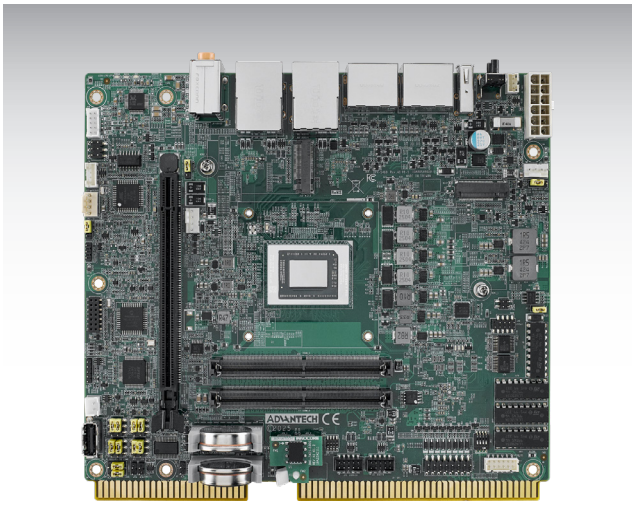
DPX®-S460

AMD® Ryzen™ Embedded 8000 Series Gaming Platform



Features

- AMD Ryzen Embedded 8000 Series SoCs
- AMD Radeon™ RDNA3 graphics with integrated XDNA™ NPU
- Supports up to 4 independent displays
- PCIe x16 graphics card slot
- Comprehensive gaming I/O and security with full driver API support
- Hardware & software backwards and forwards compatible
- 12 V DC single input or ATX power

AMD RYZEN Embedded AMD Embedded Solutions Windows Linux

Introduction

The DPX-S460 is the latest addition to the proven DPX-S series of integrated gaming platforms. Based on the AMD Ryzen Embedded 8000 scalable platform, the DPX-S460 uses latest high-performance Zen4 multi-core technology combined with AMD Radeon RDNA3 graphics engine and XDNA NPU for AI applications. Four independent monitors are supported via DisplayPort 1.4a DP++ ports.

For higher performance stunning games the standard PCIe x16 graphics card slot allows the S460 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-S460 an ideal performance integrated platform for many gaming and amusement applications.

Specifications

System / Processor	AMD Ryzen Embedded 8000 Series SoC's
	Ryzen 7H Pro (8-core, up to 45 W)
	Ryzen 5U Pro (6-core, up to 30 W)
	Long lifecycle availability
Graphics (Integrated)	Integrated AMD Radeon RDNA3 graphics
	4 x DP++ (DisplayPort 1.4a) supporting up to 4 independent displays
	DirectX 12, OpenGL 4.6, OpenCL 2.2
Graphics (Expansion)	PCIe x16 Gen.4 slot (x8 lanes)
	Supports simultaneous integrated and discrete graphics
NPU	Integrated XDNA NPU (up to 16 TOPS)
Memory	2 x SO-DIMM sockets up to 64 GB (32 GB per slot)
	DDR5-5600 MT/s
	Non-ECC support
Storage	2 x M.2 'M-Key' (up to 2242)
	PCIe NVMe support
	Dual SATA via M.2 adapter
Security	TPM 2.0 compliant security device
	8 x dedicated intrusion detection inputs
	Optional secure Precision RTC
	Protected I²C
	iButton® support
	BIOS customization and write-protection
Discrete I/O	32 x ESD-protected inputs
	32 x open-collector outputs (500 mA, 50 V)
	8 configurable meter outputs with disconnect detection

Interfaces	5 x serial ports (RS-232 / RS-485 / TTL configurable)
	2 x ccTalk
	10 x USB (8 x USB 2.0, 2 x USB 3.2)
	2 x I²C
	Front I/O audio connectors
LAN	2 x Gigabit Ethernet (full duplex, Wake-on-LAN support)
Expansion	PCIe x16, I²C, iButton
BIOS	AMI Aptio UEFI BIOS
	Write protection support
	BIOS module with expansion ROM support
Embedded Controller	Voltage and temperature monitoring
	Fan control
	Auto-start response
	Event logging
	Licensing counters
Audio	HD 5.1-channel line-level audio
Watchdog Timer	Programmable timeout
Asset Tag	Unique ID and API-readable serial number
OS Support	Windows®, Linux
MRAM / EEPROM	8 MB fast battery-backed SRAM
	32 kB user EEPROM (expandable option)
	Battery state software readable
Power	12V DC single input or ATX v2.3 power supply
	Intelligent power control
	Power fail detection – external sensor input
Environment	Operating temp.: 0 ~ 50 °C
	Storage temp.: –20 ~ 85 °C

Specifications Continued

Approvals	UKCA, CE, FCC Class A, RoHS, WEEE
Dimensions	200 mm x 170 mm

Benefits

- AMD Radeon RDNA3 architecture and PCIe x16 for discrete graphics cards
- Single board integrated solution
- Designed for the gaming industry and markets
- Backwards compatible with DPX-M series boards
- Small size
- Low power
- Long lifecycle

Software Products

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

Optional Accessories

- Supports M.2 modules, SATA DoM and SSD storage devices, M.2 -> SATA adapter
- iButtons, iButton reader
- Full system Chassis
- Range of PCIe graphics cards
- I/O connector breakout boards
- Edge card connector set



DPX-S460 Interface plate



DPX-S2460 Gaming System

OEM Customization and Product Development

Advantech Gaming Solutions provides PC-based hardware and software design services for regulated gaming applications, supporting customized platform development and long-term product lifecycle management.

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