ADi-SA3X-AD

Highly scalable Gaming Platform based on 12th Gen Intel® Core™ Processors Supports up to Eight Independent Displays Including 4K UHD

Features

- Highly scalable platform meets individual performance, graphics and power needs
- From Intel Celeron to Intel® Core™ i7 with multiple discrete GPU options
- Advanced security feature set and software solutions
- Adlink Advanced Gaming Architecture (AGA) shortens development time



Introduction

ADLINK's ADi-SA3X-AD all-in-one gaming platform features powerful processing and graphics performance for gaming and retail. Equipped with 12th Generation Intel® Core™ processors, the ADi-SA3X-AD provides compelling graphics performance from a PCI Express 3.0x16 discrete graphics card and/or an embedded Intel® Iris® Xe supporting up to eight independent monitors. With the powerful processing performance, advanced security functions, smart middleware solutions, and versatile I/O array, the ADi-SA3X-AD fully satisfies the needs of your gaming application. The ADi-SA3X-AD is a true application-ready gaming platform providing OEMs with a highly flexible and reliable all-in-one system that offers unparalleled portfolio of services that help developers save time and pass compliance. The platform is designed to meet the GLI-11 (Gaming Laboratories International) certification and all major global gaming market.

High Scalability and Ideal Range of Performance Class
The ADi-SA3X-AD is designed with highly scalable and reliable components that can be flexibly scaled from entry level up to the highest performance class. The platform has compact dimensions for scenarios with a more compact cabinet footprint.

Multi-Display Graphics Capabilities
The ADi-SA3X-AD provides support for up to 4K resolutions via four standard video outputs. It is capable of supporting dedicated graphics cards for up to eight independent monitors.

Advanced Security and NVRAM PCI Express for Gaming Designed to Meet GLI-11
The ADi-SA3X-AD is using a high-speed PCI Express interface to support up to 64 MB NVRAM & SRAM. It comes with a crypto and authentication security chip with power-off monitoring and event logging designed to meet the GLI-11. Further features are also available, such as TPM 2.0 trusted platform module, secure/custom BIOS options and Intrusion Detection.

ADLINK Comprehensive Middleware Solutions
ADLINK's Advanced Gaming Architecture (AGA) provides advanced integration of hardware/software monitoring and controlling allowing simplified and unified application development without dependencies on the peripheral devices.

Ordering Information

- **ADi-SA3X-AD-EAAF**
  Intel® Core™ i5-1250PE, TPM, SEMA, 8MB SRAM, 2.1 CH ADi-BAMP-G2 Card, 16GB DDR5 (2x 8GB DDR5 SO-DIMM), 1x SATA CONN & 1x CFast CONN, 1x ASDEM4EDE-128GT0 (128GB M.2),Windows 10
  *Other configurations on request
- **ADi-SA3X-AD-EABF**
  Intel® Celeron® 7305E, TPM, SEMA, 8MB SRAM, 2.1 CH ADi-BAMP-G2 Card, 16GB DDR5 (2x 8GB DDR5 SO-DIMM), 1x SATA CONN & 1x CFast CONN, 1x ASDEM4EDE-128GT0 (128GB M.2),Windows 10
  *Other configurations on request

Advanced Gaming Architecture

- **ADLINK Gaming Layer**
  Hardware abstraction layer
- **Device Abstraction Service (DAS)**
  API for peripherals
- **Hardware Abstraction Service (HWS)**
  API for low-level components, NVRAM
- **Slot Accounting System (SAS) Engine**
  Software stack

Optional Accessories

- **SEMA 4.0**
  Smart Embedded Management Agent
- **ADi-SA3X cable kit**
- **ADi-BACC-G3**
  Breakout board/backplane (on project basis)

ADi-SA3X-AD

Product Illustration



Specifications

Model Name	ADi-SA3X-AD
Core System	
Processor	Support 12th Intel® Generation Core™ / Celeron® CPU (Intel® Core™ i5-1250PE / Core™ i3-1215UE / Celeron® 7305E; Other options on request)
Chipset	Integrated with Intel® SoC
BIOS	AMI uEFI on 32 MB SPI BIOS flash via onboard BIOS socket and SPI header
Expansion Slot	1 PCIe x16 slot (x4 Lanes for i5-1250PE; x8 Lanes by request)
	1 PCIe x1 slot
	1x M.2 (M key, 2242/2260/2280, support NVMe 1.3; PCIe 3.0x 4 signal only)
Memory	Dual channel non-ECC 4800 MHz DDR5 memory up to 64GB in dual vertical SODIMM sockets
Graphics	Intel® Iris® Xe Graphics / Intel® UHD Graphics
	NVIDIA® T600 NVIDIA® T1000 embedded with extended availability Other options on request
Storage	1x SSD (2.5") or SATADOM (incl. Pin 7 support and dedicated 3.3V/5.0V storage supply connectors) *on request
	1x CFast (2x CFast or SSD configuration on request)
Security	Key lock, intrusion detection switch, power-off monitoring, eyelet for seal, security dongle options, TPM, Bit Lock, Software Chain of Trust, BIOS Customization, GLI cable and connector covers (option)
I/O interface	
Serial ATA	2x Serial ATA 6 Gbps ports
Ethernet	2x GbE ports (10/100/1000 GbE connection)
Serial Ports	1x RS-232/422/485 on D-SUB Connector (Top side) and 1x RS-232 on D-SUB (Bottom side)
	2x RS-232/TTL and 1x CCTALK x2 by external feature connector
Audio Interface	Codec Realtek ALC888S
	7.1 channel audio via 5 jacks and S/PDIF output on rear I/O
USB	4x USB 3.2 Gen 1 and 4x USB 2.0 on rear I/O
	2x USB 3.2 Gen 1 on board header
	2x USB 3.2 Gen 1 on vertical connector with keep out area for dongle
DisplayPort	4x outputs with resolution up to 4096 x 2160 pixels
	4x PEG card outputs (option) (CPU E&UE series would not support PEG device)
other	SPI, 1-Wire, I²C, removable BIOS chips, BIOS SPI header, removable EEPROM modules (options)
Power Supply	
	12V or 24V input (optional)
Mechanical	
Dimensions	265 mm (W) x 240 mm (D) x 91 mm (H)(10.4 in x 9.4 in x 3.5 in)
Environmental & Safety	
Operating Temperature	0°C to 50°C (32˚F to 122˚F)
Storage Temperature	-20°C to 70°C (-4˚F to 158˚F) (excl. SSD/CFast)
Humidity	~85% @ 50°C (144˚F) (non-condensing)
Vibration	Operating, 1 Grms, 5-500 Hz, 3 axes (w/ CFast or SSD)
Shock	Operating, 20 G, half sine 11 ms duration (w/ CFast or SSD)
EMC	CE and FCC Class A
ESD	Contact +/-4 KV and Air +/-8 KV
Safety	UL/cUL, CB
Operating Systems	
	Windows® 10 IoT

ADi-SA3X-AD

Gaming-Specific Features and Security	
	Up to 2x 32MB dual independent (battery-buffered) high-speed NVRAM (by fast PCIe x1 interface)
	Crypto & Authentication Security Chip (SHA-256, RNG, UID, EEPROM, OTP)
	10x Intrusion detection and event logging (battery-buffered), 1x OPTO power supply
	EEPROM support (various; SATA connector and socket type jurisdiction EEPROM)
	Removable BIOS chips and BIOS SPI header
	1-Wire bus support (multiple UID S/Ns silicon numbers and EEPROM)
	12V DC output for peripheral devices (2A Max.)
	ccTalk, ID003, EBDS, SSP, TCL and MDB
	32x digital inputs /32x digital outputs; protected (Include 8x 3A high-current driving support)
	EPFail support (early power fail detection input)
	4x User LEDs and function switches
	4x DIP switch
	16x independent current-sensed hard meter support (8x PCs by default; another 8x PCs by request)
	SEC soft meter suport (SPI)
	1-Wire support (UID & EEPROM)
	Key lock, eyelet for sealing, TPM, dedicated security ICs, secure key storage
	Fully customizable secure BIOS
	2.1 channel 20W speaker output (By ADi-BAMP-G2 card)
	Precise RTC

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