ADi-SA3X-CL

Highly scalable Gaming Platform based on 10th Gen Intel® Core™ Processors
Supports up to Seven Independent Displays Including 4K UHD

Features

- Highly scalable platform meets individual performance, graphics and power needs
- From Intel Celeron to Intel® Core™ i9 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-CL all-in-one gaming platform features powerful processing and graphics performance for gaming and retail. Equipped with 10th Generation Intel® Core™ processors, the ADi-SA3X-CL provides compelling graphics performance from a PCI Express 3.0 x16 discrete graphics card and/or an embedded Intel® UHD Graphics 630/610 supporting up to seven independent monitors. With the powerful processing performance, advanced security functions, smart middleware solutions, and versatile I/O array, the ADi-SA3X-CL fully satisfies the needs of your gaming application.
The ADi-SA3X-CL 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 compliance requirements.

High Scalability and Ideal Range of Performance Class
The ADi-SA3X-CL 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-CL provides support for up to 4K resolutions via three standard video outputs based on the Intel® Q470E chipset. It is capable of supporting dedicated graphics cards for up to seven independent monitors.

Advanced Security and NVRAM PCI Express for Gaming Designed to Meet GLI-11
The ADi-SA3X-CL 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-CL-EAAF**
  Intel® Celeron® G5900TE, Intel Q470E, TPM, SEMA, 8MB SRAM, 2.1 CH ADi-BAMP-G2 Card, 8G DDR4 (2x 4GB DDR4 SO-DIMM), 1x CFast card 3ME4 32GB MLC
  *Other configurations on request
- **ADi-SA3X-CL-EABF**
  Intel® Celeron® G5900TE, Intel H420E, TPM, SEMA, 8MB SRAM, 2.1 CH ADi-BAMP-G2 Card, 8G DDR4 (2x 4GB DDR4 SO-DIMM), 1x CFast card 3ME4 32GB MLC

  *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)

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ADi-SA3X-CL

Product Illustration



Specifications

Model Name	ADi-SA3X-CL
Core System	
Processor	Socket LGA1200 supporting 10th Generation Intel® Core™ Processors from 35W up to 65W
Chipset	Intel® Q470E or H420E
BIOS	AMI uEFI on 16 MB SPI BIOS flash with Intel® AMT 11.0 support via onboard BIOS socket and SPI header
Expansion Slot	1 PCIe x16 slot
	1 PCIe x1 slot
	1x M.2 (M key, 2242/2260/2280, support NVMe 1.3; H420: PCIe 3.0 x1 signal)
Memory	Dual channel non-ECC 2400/2666 MHz DDR4 memory up to 32GB in dual vertical SODIMM sockets
Graphics	Intel® UHD Graphics 630/610
	NVIDIA® T600 NVIDIA® T1000 embedded with extended availability Other options on request
Storage	2x SSD (2.5") or SATADOM (incl. Pin 7 support and dedicated 3.3V/5.0V storage supply connectors) *on request
	2x CFast
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 (H420E: Either 1x port or M.2 use same SATA interface)
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 3.1 Gen 1 and 4x USB 2.0 on rear I/O
	2x USB 3.1 Gen 1 on board header (Q470E)
	2x USB 3.1 Gen 1 on vertical connector with keep out area for dongle
DisplayPort	Q470E: 3x outputs with resolution up to 4096 x 2160 pixels
	H420E: 2x outputs with resolution up to 4096 x 2160 pixels
	4x PEG card outputs (option)
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-CL

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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