# ADi-SA1X-KB/SL

*Ultimate Performance Gaming Platform based on 7th Gen Intel® Core™ Processors*
*Supports up to 11x Independent Displays Including 4K UHD*

## Features

- Ultimate " all-in-one" gaming platform
- The best-in-class graphics capabilities in games with high levels of detail
- Up to 11x independent HD monitors supporting 4K UHD
- Advanced security feature set and software solutions
- Intelligent middleware shortens development time

Perfect for multi-player table games!



## Introduction

ADLINK's ADi-SA1X-KB/SL all-in-one gaming platform features powerful processing and graphics performance for gaming infotainment and retail. Equipped with 7th Generation Intel® Core™ processors, the ADi-SA1X-KB/SL provides compelling graphics performance from a PCI Express 3.0 x16 discrete graphics card and/or an embedded Intel® HD Graphics 630 together with multi-display support for up to eleven independent monitors. With the powerful processing performance, advanced security functions, smart middleware solutions, and versatile I/O array, the ADi-SA1X-KB/SL fully satisfies the needs of your gaming application.

The ADi-SA1X-KB/SLL 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 remain in compliance. The platform is designed to meet the GLI-11 (Gaming Laboratories International) certification and all major global gaming market compliance requirements. The comprehensive middleware as well as the security and extensive I/O solutions enable developers to easily bridge applications with peripheral devices, sensors, and surrounding solutions up to central monitoring and control systems.

**Ultimate Performance Processing and Graphics**
The ADi-SA1X-KB/SL supports Intel® Core™ i7/i5 processors clocked at up to 4.2 GHz with boost With integrated Intel® HD Graphics 630 and optionally with PCI Express 3.0 x16 or 2x PCI Express 3.0 x8 discrete graphics providing compelling processing and graphics performance.

**Multi-Display Graphics Capabilities**
The ADi-SA1X-KB/SL provides support for up to 4K resolutions via three standard video outputs based on the Intel® Q170 chipset. It is capable of supporting dedicated graphics cards for up to eleven independent monitors that conform to the latest DisplayPort 1.2 standard.

**Advanced Security and NVRAM PCI Express for Gaming Designed to Meet GLI-11**

ADLINK's ADi-BSEC is a high-speed PCI Express card with up to 16 MB NVRAM & SRAM. It offers a crypto and authentication security chip with power-off monitoring and event logging designed to meet the GLI-11 (Gaming Laboratories International) certification requirements. Further features are also available, such as TPM1.2 trusted platform module, Bit Lock, Software Chain of Trust (sCOT), BIOS customizations, Intrusion Detection, Security Dongle to provide the comprehensive protection of the assets.

**ADLINK Comprehensive Middleware Solutions**
ADLINK's ADiAPI (intelligent Application Programming Interface) and SEMA® (Smart System Management Agent) provide advanced integration of hardware/software monitoring and controlling allowing simplified and unified application development without dependencies on the peripheral devices.

## Product Illustration



**ADi-SA1X-KB-CAAS**
**ADi-SA1X-SL-CAAS**



**ADi-SA1X-KB-DAAS**
**ADi-SA1X-SL-DAAS**

# Specifications

| Model Name | ADi-SA1X-KB | ADi-SA1X-SL |
|---|---|---|
| **Core System** | | |
| Processor | Socket LGA1151 supporting 7th Generation Intel® Core™ Processors from 35W up to 65W | Socket LGA1151 supporting 6th Generation Intel® Core™ Processors from 35W up to 65W |
| Chipset | Intel® Q170 or H110 | |
| 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 | |
| | 1 full-size Mini PCIe slot supporting PCIe+USB or mSATA (option for ADi-SA1X-SL) | |
| | 1 half-size Mini PCIe slot supporting PCIe and USB | |
| Memory | Dual-channel, non-ECC 2133/2400 MHz DDR4 memory up to 32 GB in dual vertical SODIMM sockets | |
| Graphics | Intel® HD Graphics 630 | Intel® HD Graphics 530 |
| | NVIDIA® QUADRO® P620 embedded with extended availability<br>NVIDIA® QUADRO® P1000 embedded with extended availability<br>NVIDIA® QUADRO® P2000 embedded<br>NVIDIA® QUADRO® P4000 embedded<br>Other options on request | |
| Storage | 2x HDD/SSD (2.5“) | |
| | 2x CFast (via 2.5“ adapter option) | |
| | 2x SATADOM *on request | |
| Security | Kensington Lock, Intrusion switch for ADi-BSEC power-off, Security Dongle, Eylet for seal, TPM, Bit Lock, Software Chain of Trust, BIOS Customization, ADi-BSEC security card (option) , Cable and connector covers (option) | |
| **I/O interface** | | |
| Serial ATA | 3x Serial ATA 6Gbps ports | |
| Ethernet | 2x GbE ports (10/100/1000 GbE connection) | |
| Serial Ports | 1x RS-232/422/485 via onboard header | |
| | 3x RS-232 via onboard header | |
| Audio Interface | Codec Realtek ALC886 | |
| | 7.1 channel audio via 5 jacks and S/PDIF output on rear I/O | |
| | 7.1 channel audio signals and S/PDIF output on internal header | |
| USB | 4x USB 3.0 and 4x USB 2.0 on rear I/O | |
| | 2x USB 3.0 on board header (H110:USB2.0) | |
| | 1x USB 2.0 on vertical connector with keep out area for dongle | |
| DisplayPort | Q170: 3x outputs with resolution up to 4096 x 2160 pixels | |
| | H110: 2x outputs with resolution up to 4096 x 2160 pixels | |
| | Up to two additional PEG cards with up to 8x additional outputs (option, only for Q170) | |
| Wi-Fi | 802.11 a/b/g/n (option) | |
| **Power supply (option)** | | |
| | ADi-SPSU-500AC (500W), 24 pin ATX power adaptor | |
| **Mechanical** | | |
| Dimensions | 330 mm (W) x 330 mm (D) x 105 mm (H; w/o brackets) (13 in x 13 in x 4.1 in)<br>ADi-SPSU option: +43 mm (w); ADi-BACC option: +20 mm (D) | |
| **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. HDD/SSD/CFast) | |
| Humidity | ~85% @ 50°C (144˚F) (non-condensing) | |
| Vibration | Operating, 1 Grms, 5-500 Hz, 3 axes (w/ CFast or SSD) | |
| | Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ 2.5“ HDD) | |
| | Operating, 20 G, half sine 11 ms duration (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, KCC | |
| **Operating Systems** | | |
| | Windows® 10 IoT | Windows® 7 32/64-bit, Linux 32/64-bit (option) |

| Gaming-Specific Features and Security (Options) | |
|---|---|
| | Up to 2x 8MB dual independent (battery-buffered) high-speed NVRAM (fast PCIe x1 interface) |
| | Crypto & Authentication Security Chip (SHA-256, RNG, UID, EEPROM, OTP) |
| | Intrusion detection and event logging (battery-buffered ) |
| | EEPROM support (various; SMD down and DIP socket jurisdiction EEPROM) |
| | 1-Wire bus support (multiple UID S/Ns silicon numbers and EEPROM) |
| | 4x additional serial interfaces (RS-232, RS-232 TTL, ccTalk) |
| | ccTalk, ID003, EBDS, SSP, TCL and MDB |
| | 32x digital inputs / 32x digital outputs |
| | 24 x open drain /40V LED drivers |
| | 3x high-current outputs |
| | EPFail support (early power fail detection input) |
| | User LEDs and function switches |
| | DIP switch option |
| | 8x independent current-sensed hardmeter support |
| | 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 |

## Ordering Information

- **ADi-SA1X-KB-CAAS**
  Intel® Core™ i5-7500T, 8GB DDR4, 16GB Cfast Card, ADi-BSEC (4MB), ADi-BACC-G2F, ADi-BAMP
- **ADi-SA1X-KB-DAAS**
  Intel® Core™ i7-7700, 32GB DDR4, ADi-SPSU-500AC (500W PSU), ADi-BSEC (8MB), ADi-BACC-G2FA, ADi-BAMP, Windows 10 IoT Enterpris
- **ADi-SA1X-SL (Call for availability )**

*Other configurations on request

## Options

- **ADi-BSEC**
  Intelligent Infotainment Security and NVRAM PCI Express Card
- **ADi-BAMP**
  Audio Amplifier, 2x 12-15W
- **ADi-BACC**
  Gaming and Retail Extension I/O Board
- **ADiAPI**
  Intelligent middleware used for controlling peripheral devices
- **ADiDLL**
  Middleware used for controlling optional add-on devices
- **SAS 6.02/6.03 engine**

## Optional Accessories

- **ADi-BSEC cable**
- **Box PC cable kit**
- **ADi-BACC cable kit**

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



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