# ADi-SIOG-FPGA

Modular Gaming & Retail I/O controller with battery backed NVRAM and intrusion detection

GAMING STANDARDS ASSOCIATION

AGEM
Association of Gaming Equipment Manufacturers

## Features

- Unique modular architecture
- Provides unmatched flexibility and performance to adapt to any given existing gaming or retail I/O requirement
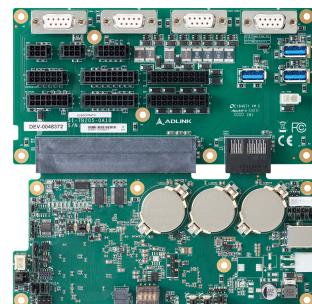
## Specifications

| Model Name | ADi-SIOG-FPGA | |
|---|---|---|
| Hardware | ADi-SIOG-FPGA/12V-4MB | ADi-SIOG-FPGA/12V-2MB |
| System architecture | FPGA gaming control board and I/O boards for flexible coverage of any I/O requirements | |
| Host interfaces | USB 3.2 Gen 1 | |
| Battery-Backed NVRAM (SRAM) | 4 MB (Up to 32 MB; two independent banks with high read and write speeds) | 2 MB (Up to 32 MB; two independent banks with high read and write speeds) |
| Independent Event Logging Processor | Event logging with date/time stamping<br>Intrusion detection (11 external inputs)<br>Battery monitoring | |
| COM Ports | COM1: RS-232/422/485<br>COM2: RS-232/CCTalk<br>COM3: RS-232/CCTalk<br>COM4: RS-232/TTL | N/A |
| USB Ports | 3x USB 3.2 Gen 1 Type-A CONN<br>1x USB 2.0 4-pin header for USBDOM | N/A |
| Digital GP Inputs | 32 GPIs 5 V TTL with ESD protection<br>Default pull-up to 5 V; internal pull-up can be disabled by software | |
| Digital GP Outputs | 16 GPOs, 600 mA open-drain/up to 36 V<br>8 GPOs, 250 mA open-drain/up to 45 V<br>8 high-current GPOs, 3 A open-drain/up to 45 V | |
| Meter support | 8x hard meter current-sensed hard meter support (ESD protected) Sec meter support | |
| User Switches and LED's | 4x user DIP switches<br>4x user LEDs | |
| Dedicated Security Chip | SHA-256 (optional AES128 version)<br>32 bytes RNG<br>Unique ID | |

| Other | 1x EEPROM (32KB)<br>1-Wire Chip (DS2431) @ BIOG board<br>I²C interface | 1x EEPROM (32KB)<br>I²C interface |
|---|---|---|
| Power Supply | 12 V DC in @ 5.8 A<br>24 V DC in @ 3.2 A (by request) | |
| PCBA Dimensions | 170 mm x 190 mm (2 boards assembled) | |

## 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

- **Operating System Support**
  Windows 10, Linux, Debian

## Ordering Information

- **ADi-SIOG-FPGA/12V-4MB**
  12V PWR_IN, SA metal cover, FPGA controller, PIC Logging Processor, 4MB SRAM, 32x DIO, 8x HW Meter, 4x COM Port

- **ADi-SIOG-FPGA/12V-2MB**
  12V PWR_IN, SA metal cover, FPGA controller, PIC Logging Processor, 2MB SRAM, 32x DIO

## Optional Accessories

- **91-95366-000E**
  ADi-SIOG-FPGA cable kit