

# ADi-SA3X-PTL

Scalable Gaming Platform Powered by Intel® Core™ Ultra Series 3 Processors, supporting up to Four Independent 4K UHD Displays

Preliminary



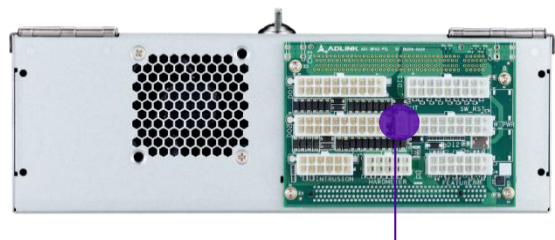
## Features

- Intel Core™ Ultra Series 3: Panther Lake-H  
3 SKUs:
  - Intel® Core™ Ultra 7 358H 12Xe
  - Intel® Core™ Ultra 5 338H 10Xe
  - Intel® Core™ Ultra 5 336H 4Xe
- Dual flexible Gaming BIOS design (BIOS socket or BIOS module board)
- New cabinet harness interface solutions (Vertical connector backplane: ADi-BPA3-PTL)
- 1x Dual-slot PEG card support (PCIe 4.0 x8), 8MB MRAM expandable to 64MB
- 8x USB 3.2 Gen1, 9x USB 2.0 (Supports MEMCLEAN function by new rear I/O panel and internal USB 2.0 cable)
- 2x GbE
- 6x COM port, including ccTalk, 9-bit support
- TPM 2.0
- 12V single rail and 24V single rail support (optional)
- 4x DP 1.4a output (HBR2)
- 2ch Audio
- 2x M.2 and 2x SATA DOM/CFast Support
- New Gaming solution design (More powerful FPGA and Log-in processor solution)
- Compatible with iDLL and iAPI SW platform and next-gen gaming platforms

## Highlights



Dual-slot PEG Card Support  
(\*Intel® Core™ Ultra 5 336H 4Xe SKU)



Vertical connector backplane  
(Optional Accessory)



## Specifications

|                       |                                                                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Name            | ADi-SA3X-PTL                                                                                                                                                                                                |
| <b>Core System</b>    |                                                                                                                                                                                                             |
| Processor             | Intel® Core™ Ultra Series 3                                                                                                                                                                                 |
| Chipset               | N/A                                                                                                                                                                                                         |
| BIOS                  | AMI uEFI on 32 MB SPI BIOS flash via onboard BIOS socket and SPI header                                                                                                                                     |
| Expansion Slot        | 1x PCIe x16 Gen4 slot (up to x8)<br>2x M.2 2280 (2-lane PCIe)/1x M.2 2280 (4-lane PCIe)                                                                                                                     |
| DIMM Type/ Frequency  | 2x DDR5 SO-DIMMs, up to 7200MHz                                                                                                                                                                             |
| SRAM/ MRAM            | 8MB (Up to 64MB) MRAM                                                                                                                                                                                       |
| Storage               | 2x M.2(2242/2280) and 2x SATA DOM/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 (optional) |
| <b>I/O Interface</b>  |                                                                                                                                                                                                             |
| Serial ATA            | 2x SATA CONN or CFAST CONN                                                                                                                                                                                  |
| Ethernet (GLAN)       | 2                                                                                                                                                                                                           |
| COM                   | 1x RS-232/422/485<br>1x RS-232<br>2x RS-232/TTL<br>1x RS-232/ccTalk x2 on internal header (9-bit protocol support) (6x)                                                                                     |
| Audio Interface       | 2 channel audio signal (FRONT, LINE-IN, MIC) via 3 jacks on rear I/O<br>2 channel audio signals output (LINE-OUT) on internal header                                                                        |
| USB                   | 4x USB 3.2 Gen 1 & 8x USB 2.0 (rear I/O)<br>4x USB 3.2 Gen 1 internal vertical connectors<br>1x USB 2.0 internal vertical connector (17x)                                                                   |
| Digital I/O (Gaming)  | 32x GPI & 32x GPO                                                                                                                                                                                           |
| <b>Display</b>        |                                                                                                                                                                                                             |
| Display Port          | 4                                                                                                                                                                                                           |
| <b>Power Supply</b>   |                                                                                                                                                                                                             |
| DC Power              | 12V or 24V DC                                                                                                                                                                                               |
| <b>Mechanicals</b>    |                                                                                                                                                                                                             |
| Dimensions            | 265mm (W) x 242mm (D) x 91mm (H)                                                                                                                                                                            |
| <b>Environmental</b>  |                                                                                                                                                                                                             |
| Operating Temperature | 0°C – 50°C (32°F – 122°F)                                                                                                                                                                                   |
| Storage Temperature   | -20°C – 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                                                                                                                                                                                          |
| ECD                   | Contact +/-4 KV and Air +/-8 KV                                                                                                                                                                             |
| Safety                | UL/cUL, CB                                                                                                                                                                                                  |
| <b>SW Support</b>     |                                                                                                                                                                                                             |
| Operating System      | Windows 11 LTS (Main OS) & Linux Ubuntu 22.04 LTS (by request)                                                                                                                                              |

| Gaming-Specific Features and Security |                                                                                                  |
|---------------------------------------|--------------------------------------------------------------------------------------------------|
|                                       | Up to 2x 32MB dual independent high-speed MRAM                                                   |
|                                       | Crypto & Authentication Security Chip (SHA-256, RNG, UID, EEPROM, OTP)                           |
|                                       | 11x 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 or 24V 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 support (SPI)                                                                     |
|                                       | 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                                                                                      |