DLAP-4100 Series

User's Manual

Industrial Mini-ITX System with
14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 Processors



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LEADING EDGE AI COMPUTING

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Revision History

Revision	Release Date	Description of Change(s)
1.0	2025-05-27	Initial release
1.1	2026-06-16	BIOS settings updated

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Preface

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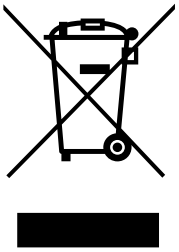
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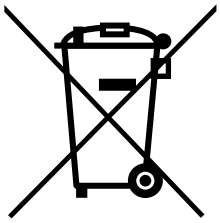
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Conventions

Take note of the following conventions used throughout this manual to make sure that users perform certain tasks and instructions properly.



NOTE:

Additional information, aids, and tips that help users perform tasks.



CAUTION:

Information to prevent ***minor*** physical injury, component damage, data loss, and/or program corruption when trying to complete a task.

ATTENTION: Informations destinées à prévenir les blessures corporelles mineures, les dommages aux composants, la perte de données et/ou la corruption de programme lors de l'exécu- tion d'une tâche.



WARNING:

Information to prevent ***serious*** physical injury, component damage, data loss, and/or program corruption when trying to complete a specific task.

AVERTISSEMENT: Informations destinées à prévenir les bles- sures corporelles graves, les dommages aux composants, la perte de données et/ou la corruption de programme lors de l'exécution d'une tâche spécifique.

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1 Introduction

ADLINK's DLAP-4100 Series embedded computing platforms, incorporating 12th, 13th, and 14th Generation Intel® Core™ i9/i7/i5/i3 desktop processors with the Intel® Q670 chipset, provide one DisplayPort, two HDMI ports, 2.5G and 1G Ethernet ports, USB 3.2 Gen 2 and Gen 1 ports, USB 2.0 ports, two 2.5-inch SSD trays, and one PCIe Gen 5 x16 slot. Designed for easy maintenance in industrial automation environments, the system features a compact size and optimized thermal design, and supports the latest graphics cards such as the NVIDIA RTX 6000 ADA.

1.1 Features

- 14/13/12th Gen Intel® Core™ i9/i7/i5/i3 processors and Q670 chipset, up to 65W
- Dual-channel DDR5 4800 MHz memory up to 64 GB
- Three independent displays: HDMI 2.0b, HDMI 1.4b, DP 1.4a
- Dual GbE ports: 1x 1GbE, 1x 2.5GbE
- Expansion slots: 1x PCIe GEN5 x16, 4x USB 3.2 Gen2, 2x USB 2.0, 1x M.2 B-key, 1x M.2 E-key, 2x M.2 M-key

1.2 Packing List

Before unpacking, check the shipping carton for any damage. If the shipping carton and/or contents are damaged, inform your dealer immediately. Retain the shipping carton and packing materials for inspection. Obtain authorization from your dealer before returning any product to ADLINK. Ensure that the following items are included in the package.

- DLAP-4100 Embedded Computer
- Accessory Box
  - Wall-mount brackets
  - Screw pack

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2 Specifications

2.1 Product Specifications

Type	Expandable	
Model	**DLAP-4100 Series**	
System	**GPU**	NVIDIA RTX 4100 Ada
	CPU	12th/13th/14th GEN Intel® Core™ i9/i7/i5/i3 Processor, 35W/65W Processor
	Chipset	Intel® Q670 Chipset
	RAM	DDR5 4800MHz (up to 64GB), 2x SODIMM
	Storage	2x 2.5" SATA 6Gb/s drive bays
	OS	Windows 10/11 IoT LTSC, Ubuntu 22.04
I/O Interfaces	**Display**	1x DP 1.4a, DP++ 1x HDMI 2.0b 1x HDMI 1.4b
	Ethernet	1x 2.5GbE Intel i226-V 1x GbE Intel i219-LM
	Serial Ports	2x RS-232/422/485 (DB9 connector)
	USB	4x USB3.2 Gen2 2x USB 2.0
	Mini PCIe	-
	M.2	1x M.2 2230 E-key (PCIe Gen3 x1) 1x M.2 3042/3052 B-key (PCIe Gen3 x1 / USB3) 1x M.2 2242 M-key, NVMe/SATA (PCIe Gen3 x4 / SATA) 1x M.2 2242/2280 M-Key, NVMe (PCIe Gen3 x4)
	Digital IO	8-bit GPIO
	Audio	Line-out, MIC-IN
	TPM 2.0	Yes
	Expansion slot	1x PCIe Gen5 x16
Mechanical	**Dimensions**	230 (W) x 300 (D) x 150 (H) mm
	Mounting	Wall mount
	Weight	7kg
Power Supply	**DC Input**	-
	AC Input	100- 240 AC input (500W)
Environmental	**Operating Temperature**	-20°C to 50°C
	Storage Temperature	-40°C to 85°C (-40°F to 185°F) (excl. storage)
	Humidity	~95% @ 40°C (non-condensing)
	Vibration	Operating: 1 Grms, random, 5-500 Hz, 3 axes (w/ SSD)
	Operating and Package (NON-OP) shock	Operating: 20G, half sine 11ms duration (w/SSD)
	EMC	EN61000-6-4/-2, CE & FCC Class B
	Safety	UL/cUL, CB

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2.2 Display Options

With computing and graphic performance enhancement from its 8th & 9th Generation Intel processors, the DLAP-4100 controller can support or two independent displays, with configurations as follows.

Table 1: Maximum display resolutions

	Port	Resolution
Display Option 1	DisplayPort 1.4a	4096 x 2160@60Hz
Display Option 2	HDMI 1.4b	4096x2160@30Hz
Display Option 3	HDMI 2.0b	4096 x 2160@60Hz

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3 Functional Block Diagram

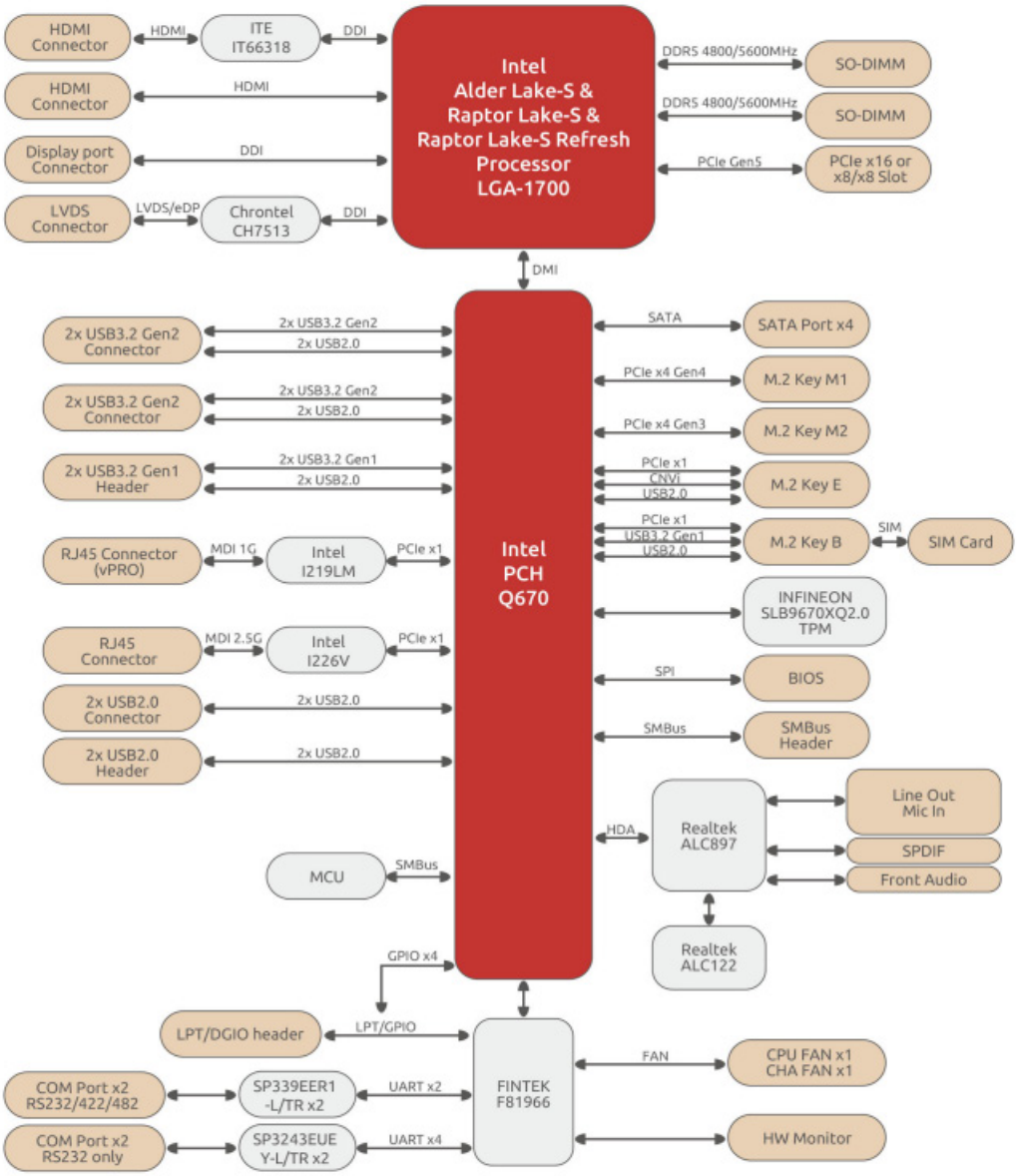


Figure 1: Block diagram

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4 Mechanical Layout

4.1 Mechanical Dimensions

NOTE:

All dimensions are in millimeters, unless noted.

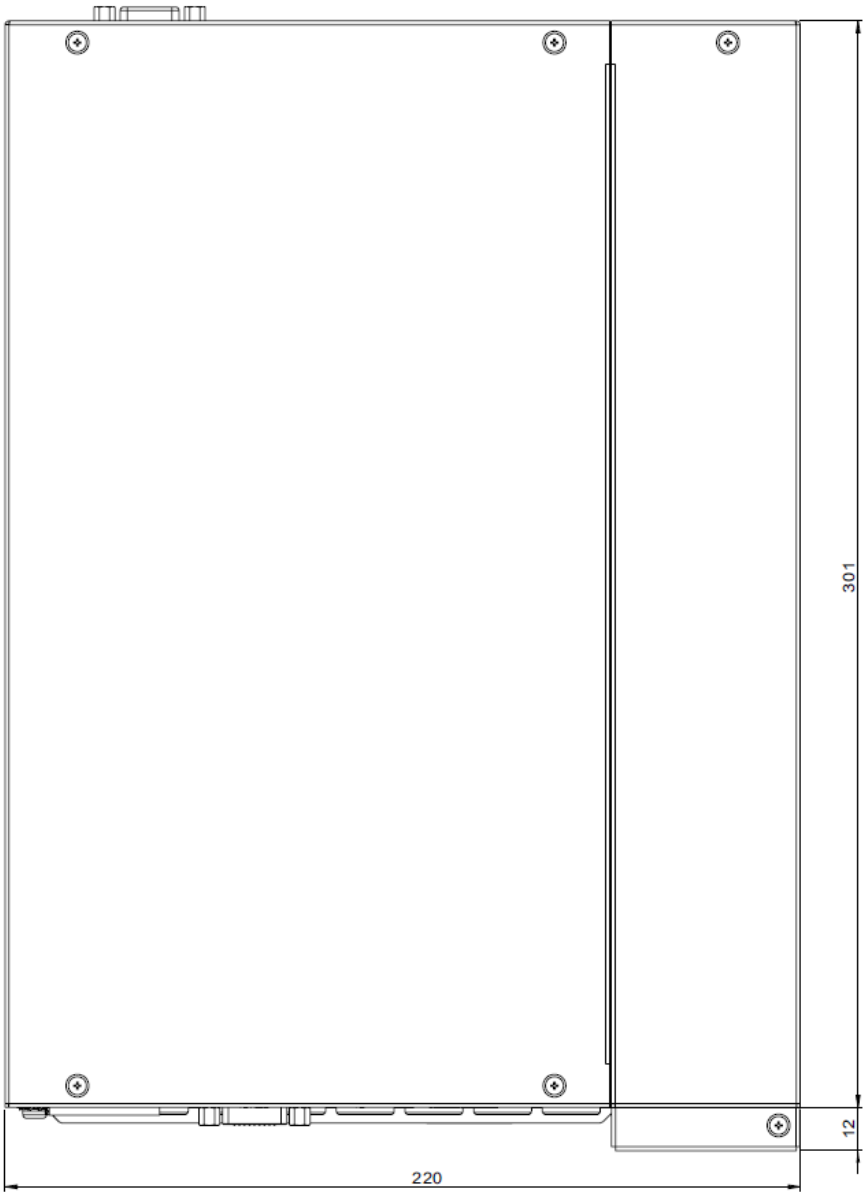


Figure 2: DLAP-4100 top view

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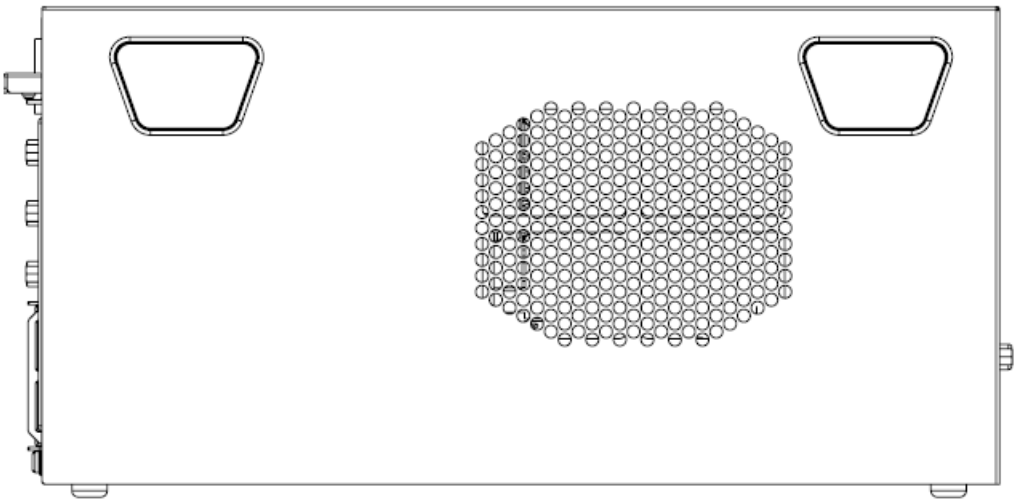


Figure 3: DLAP-4100 right side view



Figure 4: DLAP-4100 left side view

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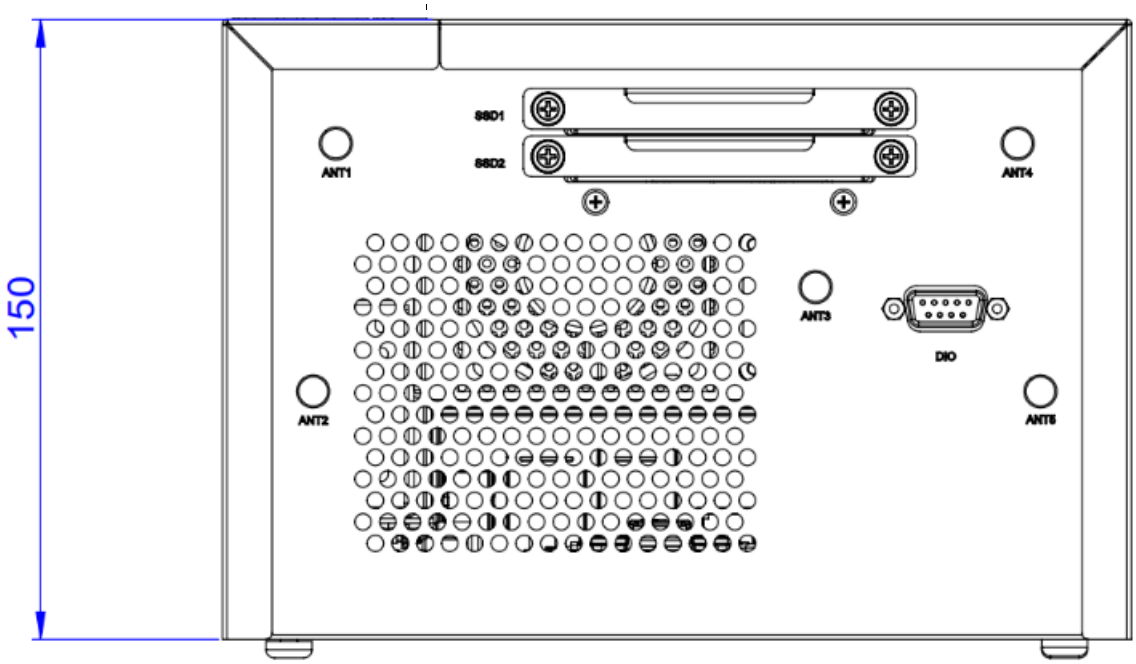


Figure 5: DLAP-4100 rear view

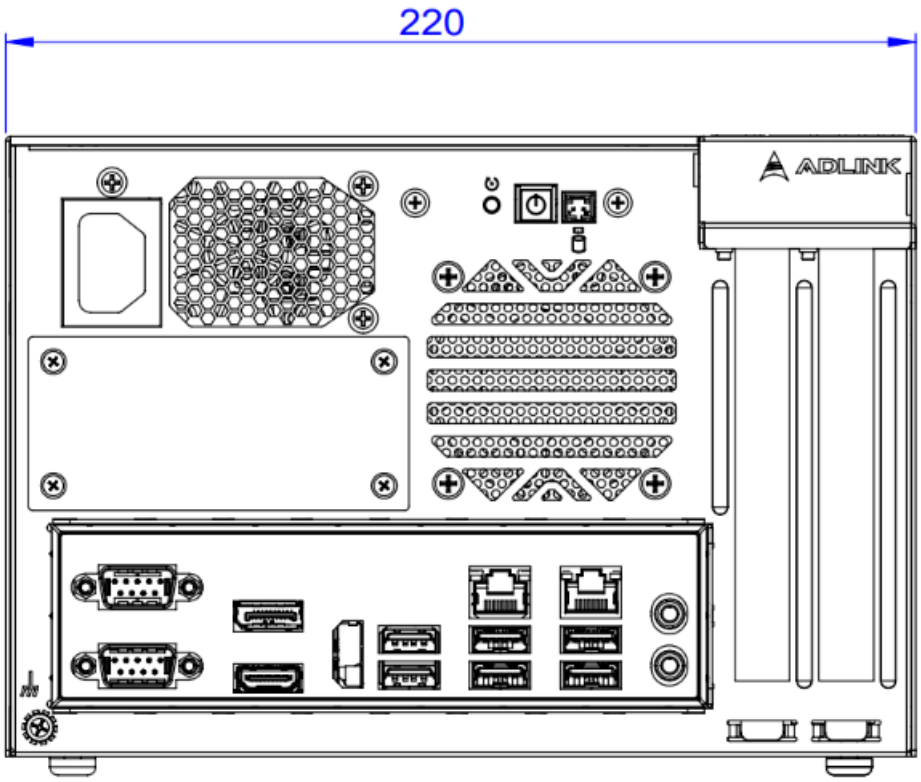


Figure 6: DLAP-4100 front view

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4.2 Mainboard Connector Locations

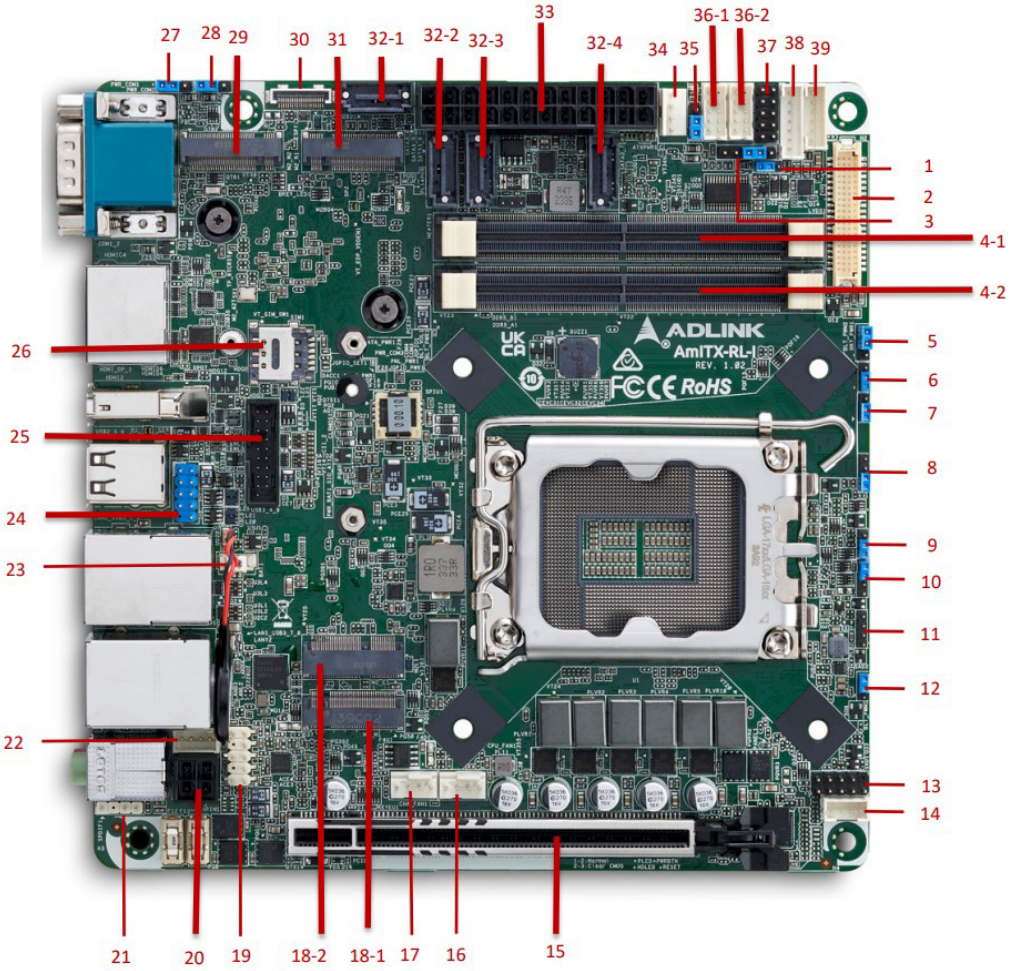


Figure 7: Mainboard front connectors

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Table 2: Mainboard connector descriptions

Item	Description (Location)	Item	Description (Location)
1	Digital input/output power select (JGPIO_PWR1)	22	3W audio AMP output wafer (SPEAKER1)
2	LVDS panel connector (LVDS1)	23	Battery connector (BAT1)
3	Panel power select (LCD_VCC)(PNL_PWR1)	24	USB 2.0 header (USB2_10_11)
4-1	DDR5_B1	25	USB 3.2 Gen1 header (USB3_4_9)
4-2	DDR5_A1	26	SIM socket (SIM1)
5	Backlight power select (LCD_BLT_VCC) (BKT_PWR1)	27	COM port PWR setting jumper (PWR_COM1(For COM Port1))
6	CON_LBKLT_CTL voltage level (BLT_PWM2)	28	COM port PWR setting jumper (PWR_COM2(For COM Port2))
7	Digital input/output default value setting (JGPIO_SET1)	29	M.2 M-Key 2242 slot (M2_M2)
8	DACC1_PCIE_PWR1	30	ESPI header (ESPI1)
9	Clear CMOS header (CLRMOS1)	31	M.2 B-Key 2242 slot (M2_B1)
10	Chassis intrusion header (CI1_2)	32-1	SATA3 connectors (SATA3_4)
11	PWR_BAT1_SIO_AT1	32-2	SATA3 connectors (SATA3_5)
12	Brightness control mode (BLT_PWM1)	32-3	SATA3 connectors (SATA3_6)
13	System panel header (PANEL1)	32-4	SATA3 connectors (SATA3_7)
14	SMBUS_TEST1	33	24-pin ATX power input connector (ATXPWR1)
15	PCIe Gen5 x16 slot (PCIE1)	34	SATA power output connector (SATA_PWR1)
16	CPU FAN connector (+12V) (CPU_FAN1)	35	COM port PWR setting jumper (PWR_COM3(For COM Port3))
17	Chassis FAN connector (+12V) (CHA_FAN1)	36-1	COM port headers COM 4) (RS232)
18-1	M.2 M-Key 2242/2280 slot (M2_M1)	36-2	COM port headers COM 3) (RS232)
18-2	M.2 E-Key 2230 slot (M2_E1)	37	Digital input/output pin header (JGPIO1)
19	Front panel audio header (HD_AUDIO1)	38	Backlight volume control (BLT_VOL1)
20	4-pin ATX PWR connector (DC_4PIN1)	39	Inverter power control wafer (BLT_PWR1)
21	SPDIF header (SPDIF1)		

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5 Getting Started

WARNING:

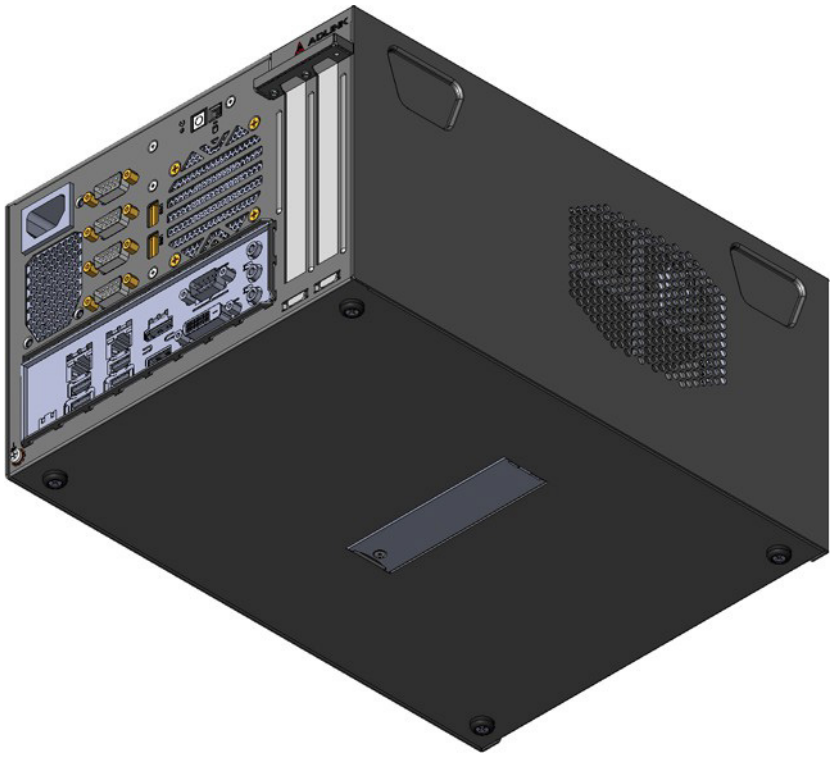
Before providing power, ensure the voltage and polarity provided are compatible with the AC input. Improper input voltage and/or polarity can be responsible for system damage.
AVERTISSEMENT: Avant d'alimenter, assurez-vous que la tension et la polarité fournies sont compatibles avec l'entrée CA. Une tension d'entrée et / ou une polarité incorrectes peuvent être responsables de dommages au système.

5.1 Mounting the DLAP-4100

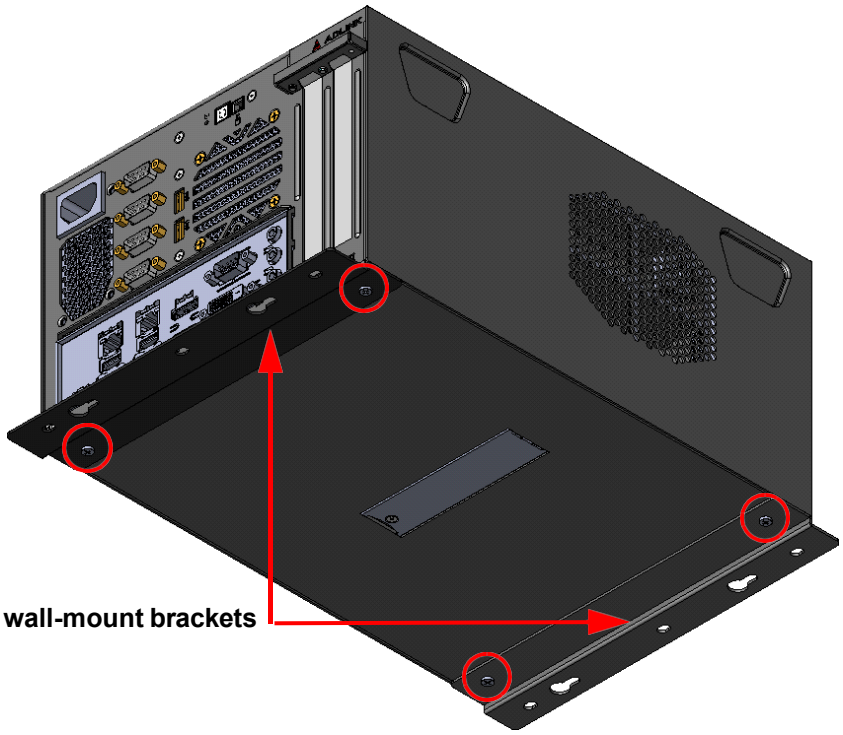
5.1.1 Install the Wall-mount Brackets

Remove the 4 footpads as indicated by the red circles below and use the 4 M4 6mm screws included in the screw pack to attach the 2 included wall-mount brackets to the chassis.

Retirez les 4 repose-pieds comme indiqué par les cercles rouges ci-dessous et utilisez les 4 vis M4 6 mm incluses dans Accessory Pox pour fixer les 2 supports de montage mural inclus au châssis.



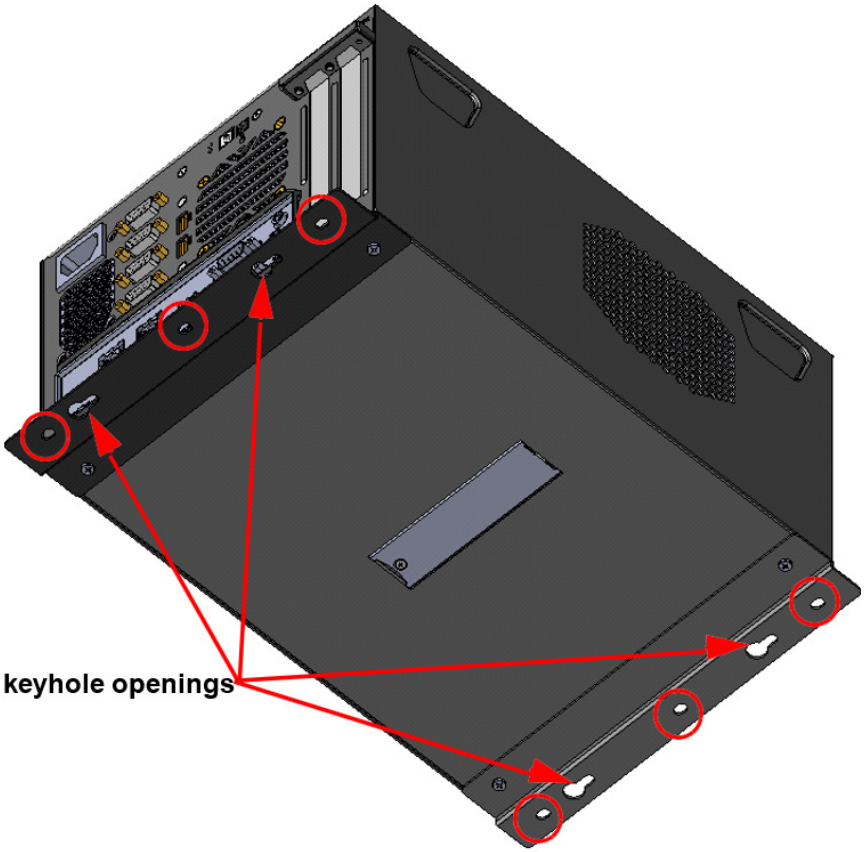
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5.1.2 Mounting the Device / Montage de l'Appareil

Mount the device to a wall using the 4 keyhole openings indicated or the 6 mounting holes circled in red, according to the spacing dimensions of the holes in the bracket as shown in Figure 7: DLAP-4100 Wall-mount Brackets.

Montez l'appareil sur un mur à l'aide des 4 ouvertures de trou de serrure en fonction des dimensions d'espacement des trous dans le support, comme indiqué dans Figure 7: DLAP-4100 Wall- mount Brackets.



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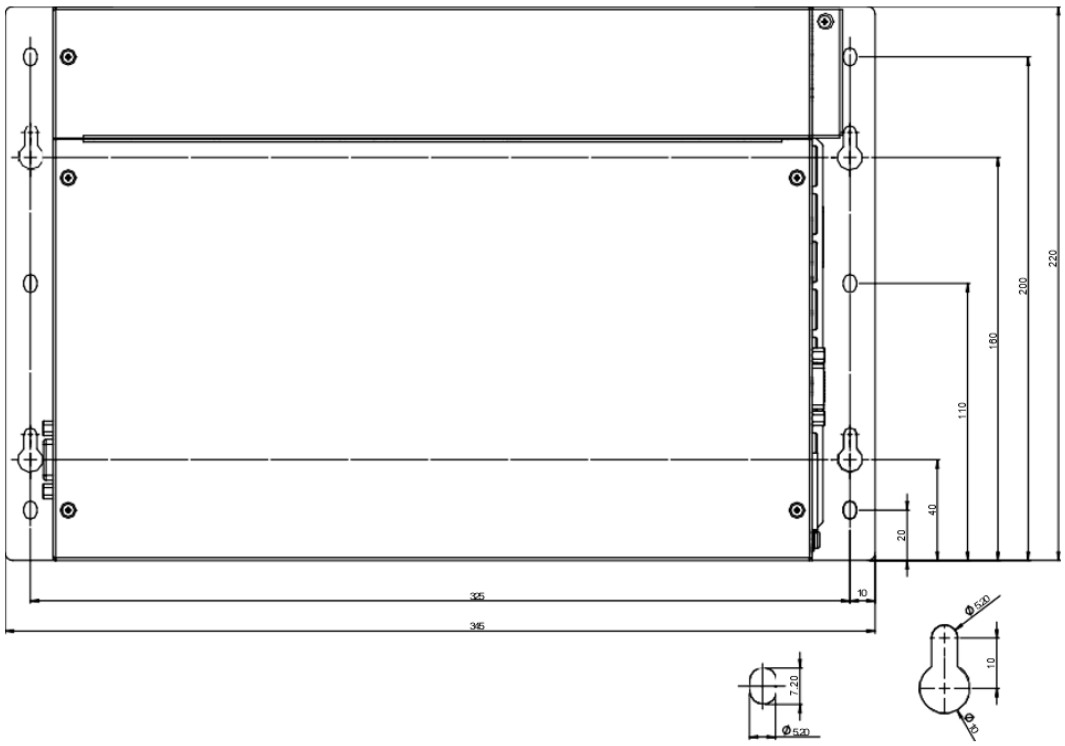


Figure 8: DLAP-4100 Wall-mount Brackets

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6 System Layout

6.1 Front Panel I/O Connectors

The DLAP-4100 Series provides the following front panel access features.

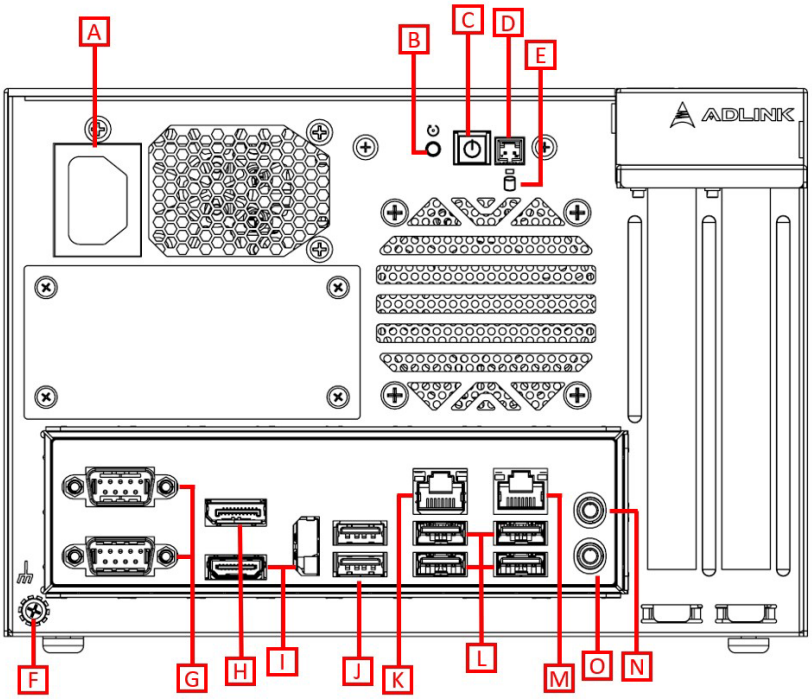


Figure 9: Front panel I/O

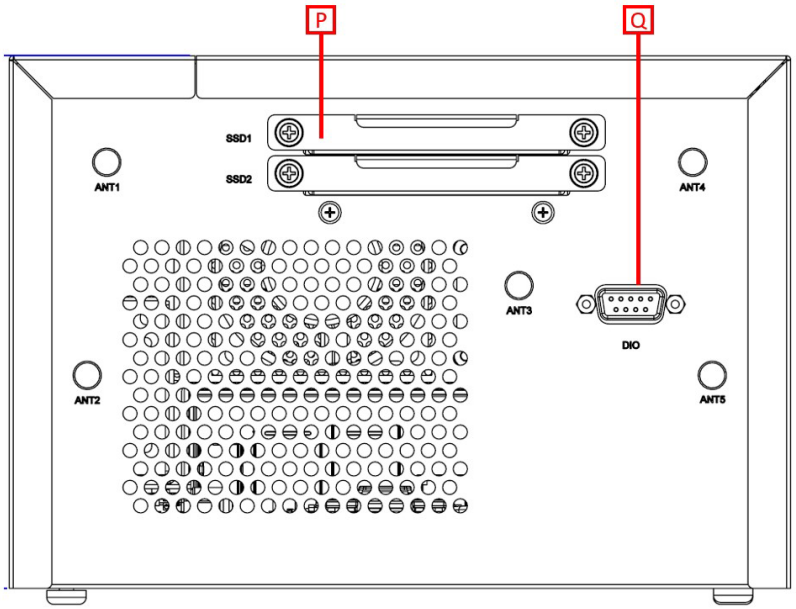


Figure 10: Rear panel I/O

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Table 3: Front/rear panel I/O descriptions

A	AC Power Input	**J**	USB 2.0
B	Reset	**K**	LAN2: 2.5GbE
C	Power Button	**L**	USB 3.2
D	Extended Power Connector	**M**	LAN1: 1GbE
E	Storage LED	**N**	Audio: Line-Out
F	Ground Screw	**O**	Audio: Mic-in
G	COM Ports (RS-232/422/485)	**P**	2.5-inch SSD Tray
H	DisplayPort	**Q**	8-bit GPIO
I	HDMI		

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7 Connector Pinouts and Jumper Settings

7.1 Power Button

The power button is a non-latching push button with a blue LED indicator. The system turns on when the button is pressed, and the power LED lights up. If the system becomes unresponsive, press and hold the button for 5 seconds to force a complete shutdown.

7.2 Storage Indicator

The Storage Indicator indicates the HDD/SSD operating state. When the storage is active, the LED indicator flashes red.

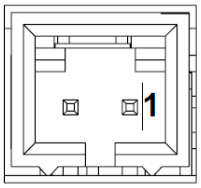
7.3 Reset Button

The reset button executes a hard reset for the DLAP-4100.

7.4 Extended Power Connector

An external connector is provided for the power buttons, with pin definitions as shown below.

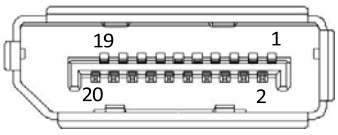
Pin	Signal	Description
1	EXT_PWRBTN	Power switch
2	GND	Ground



7.5 DisplayPort Connector

The DLAP-4100 provides one DisplayPort 1.4a connector, supporting resolutions up to 4096×2160@60Hz, for connection to an external monitor.

Pin	Signal	Pin	Signal
1	DP1_CON_DP0	2	GND
3	DP1_CON_DN0	4	DP1_CON_DP1
5	GND	6	DP1_CON_DN1
7	DP1_CON_DP2	8	GND
9	DP1_CON_DN2	10	DP1_CON_DP3
11	GND	12	DP1_CON_DN3
13	DP1_HDMI_DNG_DET	14	DP_CFG2
15	DP1_CON_AUXP	16	GND
17	DP1_CON_AUXN	18	DP1_CON_HPD
19	GND	20	+3.3V

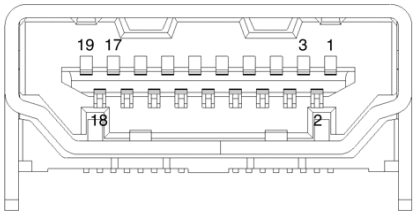


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7.6 HDMI Connector

The DLAP-4100 provides two HDMI 2.0b ports supporting up to 4096×2160 @ 60 Hz, and one HDMI 1.4b port supporting up to 4096×2160 @ 30 Hz, for connection to external monitors.

Pin	Signal	Pin	Signal
1	HDMI1_CON_DP2	2	GND
3	HDMI1_CON_DN2	4	HDMI1_CON_DP1
5	GND	6	HDMI1_CON_DN1
7	HDMI1_CON_DP0	8	GND
9	HDMI1_CON_DN0	10	HDMI1_CON_CKP
11	GND	12	HDMI1_CON_CKN
13	N/C	14	DP_CFG2
15	HDMI1_DDC_CLK	16	HDMI1_DDC_DATA
17	GND	18	+5V
19	HDMI1_CON_HPD		



7.7 USB 2.0 Ports

The DLAP-4100 provides two USB 2.0 ports with Type-A connectors on the front panel. All USB ports are compatible with high-speed, full-speed, and low-speed USB devices. The DLAP-4100 supports multiple boot devices, including USB flash drives, external USB hard drives, USB floppy drives, USB CD-ROMs, and others. Boot priority and boot devices can be configured in the BIOS.

7.8 USB 3.1 Ports

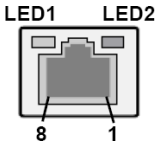
The DLAP-4100 provides four USB 3.1 Gen 1 Type-A ports on the front panel. All USB 3.1 ports are compatible with SuperSpeed, high-speed, full-speed, and low-speed USB devices.

7.9 Ethernet Ports

LAN1: 10/100/1000/2500 Mbps Ethernet controller based on Intel® i226-LM.
LAN2: 10/100/1000 Mbps Ethernet controller based on Intel® i219-V, with vPro support.

Both support PXE and WOL.

Pin	10BASE-T 100BASE-TX	1000BASE-T
1	TX+	LAN_MDI0+
2	TX-	LAN_MDI0-
3	RX+	LAN_MDI1+
4	—	LAN_MDI2+
5	—	LAN_MDI2-
6	RX-	LAN_MDI1-
7	—	LAN_MDI3+
8	—	LAN_MDI3-



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LED Behavior

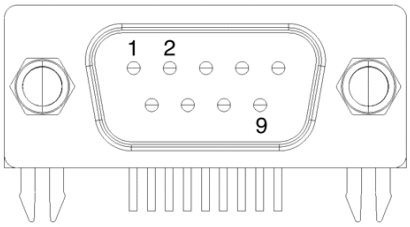
LAN2 LED Indications			
Activity Link LED		Speed LED	
Status	Description	Status	Description
Off	No link	Off	10Mbps
On	Link	Orange	100Mbps
Blinking	Data activity	Green	1Gbps

LAN1 LED Indications			
Activity Link LED		Speed LED	
Status	Description	Status	Description
Off	No link	Off	10Mbps
On	Link	Orange	100Mbps/1Gbps
Blinking	Data activity	Green	2.5Gbps

7.10 COM Port Connectors

The DLAP-4100 provides two COM ports RS-232/422/485 through D-sub 9-pin connectors.

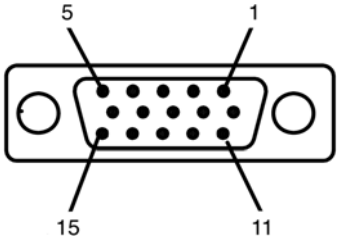
Pin	Signal Name		
	RS-232	RS-422	RS-485
1	DCD#	TXD422-	485DATA-
2	RXD	TXD422+	485DATA+
3	TXD	RXD422+	N/S
4	DTR#	RXD422-	N/S
5	GND	GND	GND
6	DSR#	N/S	N/S
7	RTS#	N/S	N/S
8	CTS#	N/S	N/S
9	PWR	PWR	PWR



7.11 8-bit GPIO Connector

The DLAP-4100 provides 8-bit GPIO through D-sub 15-pin connectors. Each GPIO can be defined as Input or Output by BIOS settings.

Pin	Signal	Pin	Signal
1	GPIO0	2	GPIO4
3	GPIO1	4	GPIO5
5	GPIO2	6	GPIO6
7	GPIO3	8	GPIO7
9	SMBCLK	10	SMBDATA
11	GND	12	+3.3VDC
13	N/S	14	N/S
15	N/S		



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7.12 SATA Connectors

The SATA connectors support transfers up to 6.0Gb/s (600MB/s).

7.13 Clear CMOS (CLCMOS1)

If the DLAP-4100 encounters an abnormal condition that prevents it from booting, the jumper can be used to clear the BIOS content stored in CMOS and restore the default settings. To clear the CMOS, short pin 2 and pin 3 for at least 3 seconds, then move the jumper back to pins 1 and 2 (default) to return to normal operation.

CLCMOS1	Clear CMOS
1-2	Normal (default)
2-3	Clear CMOS

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8 Driver Installation

Download the Windows 10/11 drivers from the ADLINK web page:
https://www.adlinktech.com/products/industrial_pcs_fanless_embedded_pcs/ipcsystems/dlap-4100_series

The following drivers must be installed:

- Chipset
- Graphics
- Audio
- Ethernet
- Intel ME
- COM Ports
- IRST

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9 BIOS Settings

9.1 Menu Structure

This section presents the six primary menus of the UEFI (BIOS) Setup Utility. Use the following table as a quick reference for the contents of the BIOS Setup Utility. The subsections in this section describe the submenus and setting options for each menu item. The function of each setting is described in the right-hand column of the respective table.

There are two options to enter UEFI Setup Utility:

- Press [F2] or [Del] during POST (Power-On-Self-Test)
- Press [Ctl] + [Alt] + [Del] after POST

Main	**Advanced**	**H/W Monitor**
Sets up the system time/date and displays the system information: - System Date - System Time - BIOS Information - Memory Information	Contains advanced system configurations, including: ▶ CPU Configuration ▶ Chipset Configuration ▶ Storage Configuration ▶ Super IO Configuration ▶ AMT Configuration ▶ ACPI Configuration ▶ USB Configuration ▶ Trusted Computing ▶ Instant Flash	Displays Hardware Status info, including: - Hardware Health Event Monitoring - CPU_FAN1 Setting - CHA_FAN1 Setting - Case Open Feature
Security	**Boot**	**Exit**
Changes or clears the supervisor/user password for the system - Supervisor Password - User Password - Secure Boot	Configures the boot settings and boot priority for available devices - Boot Option #1 - Boot From Onboard LAN - Setup Prompt Timeout - Bootup Num-Lock - Full Screen Logo	Exits the UEFI Setup Utility while saving or discard the changes made - Save Changes and Exit - Discard Changes and Exit - Discard Changes - Load UEFI Defaults - Launch EFI Shell from filesystem device

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9.2 Main

Upon entering the UEFI Setup Utility, the Main Menu is displayed, providing read-only information about your system and also allows you to set the System Date and Time. Refer to the screenshots and tables below for details of the submenus and settings.

Feature	Options
System Date	xxx mm/dd/yyyy
System Time	hh:mm:ss
BIOS Information	
UEFI Version	DLAP-4100 x.xx.xx
Processor Type	Info only
Processor Speed	Info only
Cache Size	Info only
Memory Information	
Total Memory	Info only
DDR5_A1	Info only
DDR5_B1	Info only
LVDS Rom Version	Info only

9.3 Advanced

Contains the configurations for the following: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, AMT Configuration, ACPI Configuration, USB Configuration, and Trusted Computing.

Feature
▶ CPU Configuration
▶ Chipset Configuration
▶ Storage Configuration
▶ Super IO Configuration
▶ AMT Configuration
▶ ACPI Configuration
▶ USB Configuration
▶ Trusted Computing

Feature	Description
▶ Instant Flash	Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update system UEFI without entering operating systems first like MS-DOS or Windows®. Just launch this tool and save the new UEFI file to your USB flash drive, floppy disk or hard drive, and then you can update your UEFI in only a few clicks without preparing an additional floppy diskette or other com- plicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after UEFI update process completes.

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9.3.1 CPU Configuration

Feature	Description
Intel Hyper Threading Technology	Intel Hyper Threading Technology allows multiple threads to run on each core, so that the overall performance on threaded software is improved. Configuration options: [Enabled] [Disabled]
Active Processor P-Cores	This allows you to select the number of cores to enable in each processor package.
Active Processor E-Cores	This allows you to select the number of E-Cores to enable in each processor package. NOTE: Number of P-Cores and E-Cores are looked at together. When both are {0,0}, Pcode will enable all cores.
CPU C States Support	This allows you to enable CPU C States Support for power saving. It is recommended to keep C3, C6 and C7 all enabled for better power saving. Configuration options: [Enabled] [Disabled]
Enhanced Halt State (C1E)	The option allows you to enable Enhanced Halt State (C1E) for lower power consumption. Configuration options: [Enabled] [Disabled]
Package C States Support	The option allows you to enable CPU, PCIe, Memory, Graphics C State Support for power saving.
CFG Lock	The option allows you to enable or disable the CFG Lock. Configuration options: [Enabled] [Disabled]
Intel Virtualization Technology	Intel Virtualization Technology allows a platform to run multiple operating systems and applications in independent partitions, so that one computer system can function as multiple virtual systems. Configuration options: [Enabled] [Disabled]
Intel SpeedStep Technology	Intel SpeedStep technology allows processors to switch between multiple frequencies and voltage points for better power saving and heat dissipation. CPU turbo ratio can be fixed when Intel SpeedStep Technology is set to [Disabled] and Intel Turbo Boost Technology is set to [Enabled]. Configuration options: [Enabled] [Disabled]. If you install Windows® 10 and want to enable this function, please set this item to [Enabled]. This item will be hidden if the current CPU does not support Intel SpeedStep technology. *Please note that enabling this function may reduce CPU voltage and lead to system stability or compatibility issues with some power supplies. Please set this item to [Disabled] if above issues occur.*
Intel Turbo Boost Technology	Intel Turbo Boost Technology enables the processor to run above its base operating fre- quency when the operating system requests the highest performance state. The default value is [Enabled]. Configuration options: [Enabled] [Disabled]
CPU Thermal Throttling	CPU Thermal Throttling allows you to enable CPU internal thermal control mechanisms to keep the CPU from overheating. Configuration options: [Enabled] [Disabled]

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9.3.2 Chipset Configuration

Feature	Description
Primary Graphics Adapter	The option allows you to select a primary VGA. Configuration options: [Onboard] [PCI Express] (Options vary when you have installed a graphics card on your motherboard.)
Above 4G Decoding	The option allows you to enable or disable above 4G Memory Mapped IO decoding. This is disabled automatically when Aperture Size is set to 2048MB. Configuration options: [Enabled] [Disabled]
VT-d	Intel® Virtualization Technology for Directed I/O helps your virtual machine monitor better utilize hardware by improving application compatibility and reliability, and providing additional levels of manageability, security, isolation, and I/O performance. Configuration options: [Enabled] [Disabled]
Re-Size BAR Support	If system has Resizable BAR capable PCIe Devices, this option enables or disables Resizable BAR Support.
PCIE1 Bandwidth Mode	Select PCIE1 Bandwidth. Select [x8 / x8 Mode] when using Riser card on PCIE1 slot.
PCIE1 Link Speed	The option allows you to configure PCIE1 Slot Link Speed. Auto mode is optimizing for overclocking. Configuration options: [Auto] [Gen1] [Gen2] [Gen3] [Gen4] [Gen5] (Options vary depending on your motherboard.)
Share Memory	Share memory allows you to configure the size of memory that is allocated to the integrated graphics processor when the system boots up. Configuration options: [Auto][32M][64M][128M][256M][512M] (Options vary depending on the memory you Use on your motherboard.)
IGPU Multi-Monitor	Select [Disabled] to disable the integrated graphics when an external graphics card is in- stalled. Select [Enabled] to keep the integrated graphics enabled at all times. Configuration options: [Enabled] [Disabled]
Render Standby	Power down the render unit when the GPU is idle for lower power consumption.
Active LVDS	Use this option to enable or disable the LVDS. The default value is [Disabled]. Set the item to [Enabled]. Then press <F10> to save the setting and restart the system. Now the default value of Active LVDS is changed to ENABLED (F9 load default is also set to ENABLED). Change the setting from [Enabled] to [Disabled], and then press <F10> to save the setting and restart the system. Likewise, the default value of Active LVDS is changed to DIS- ABLED (F9 load default is also set to DISABLED).
Onboard LAN1	This allows you to enable or disable the Onboard LAN1 feature.
Onboard LAN2	This allows you to enable or disable the Onboard LAN2 feature.

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Onboard HD Audio	Onboard HD Audio allows you to enable or disable the onboard HD audio controller. Set this item to [Auto] to enable the onboard HD and automatically disable it when a sound card is installed. Configuration options: [Enabled] [Disabled]
Restore on AC/Power Loss	The option allows you to select the power state after a power failure. [Power Off] sets the power to remain off when the power recovers. [Power On] sets the system to start to boot up when the power recovers.

9.3.3 Storage Configuration

Feature	Description
VMD Configuration	This item allows you to enable or disable the Intel VMD support function.
SATA Controller(s)	The option allows you to enable or disable the SATA controllers. Configuration options: [Enabled] [Disabled]
SATA Mode Selection	AHCI supports new features that improve performance. Configuration option: [AHCI]
Hybrid Storage Detection and Configuration Mode	The option allows you to select Hybrid Storage Detection and Configuration Mode. Configuration options: [Dynamic Configuration for Hybrid Storage Enable] [Disabled]
SATA Aggressive Link Power Management	SATA Aggressive Link Power Management allows SATA devices to enter a low power state during periods of inactivity to save power. It is supported only by AHCI mode. Configuration options: [Enabled] [Disabled]
Hard Disk S.M.A.R.T.	S.M.A.R.T stands for Self-Monitoring, Analysis, and Reporting Technology. It is a monitoring system for computer hard disk drives to detect and report on various indicators of reliability. Configuration options: [Enabled] [Disabled]

9.3.4 Super IO Configuration

Feature	Description
COM1 Configuration	Use this to set parameters of COM1. Type Select Use this to select COM1 port type: [RS232], [RS422] or [RS485].
COM2 Configuration	Use this to set parameters of COM2. Type Select Use this to select COM2 port type: [RS232], [RS422] or [RS485].

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COM3 Configuration	Use this to set parameters of COM3.
COM4 Configuration	Use this to set parameters of COM4.
WDT Timeout Reset	Use this to set the Watch Dog Timer.

9.3.5 AMT Configuration

Feature	Description
USB Provisioning of AMT	Use this to enable or disable AMT USB Provisioning. The default is [Disabled].
MAC Pass Through	The option enables or disables MAC Pass Through function.
Activate Remote Assistance Process	Trigger CIRA boot. The default is [Disabled].
Un-Configure ME	Un-Configure ME without password. The default is [Disabled].
ASF Configuration	The option allows you to configure Alert Standard Format parameters.
Secure Erase Configuration	Secure Erase configuration menu.
One Click Recovery (OCR) Configuration	Configuration setting for One Click Recovery. This allows access for AMT to boot a recovery OS application
MEBx	This Formset contains forms for configuring MEBx.

9.3.6 ACPI Configuration

Feature	Description
Suspend to RAM	Suspend to RAM allows you to select [Disabled] for ACPI suspend type S1. It is recommended to select [Auto] for ACPI S3 power saving. Configuration options: [Auto] [Disabled]
PCIE Devices Power On	Use this item to enable or disable PCIE devices to turn on the system from the power-soft- off mode.
RTC Alarm Power On	RTC Alarm Power On allows the system to be waked up by the real time clock alarm. Set it to By OS to let it be handled by your operating system. Configuration options: [Enabled] [Disabled] [By OS]

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9.3.7 USB Configuration

Feature	Description
USB Power Control	Use this option to control USB power.
M.2 Key_B USB Function	The item enables or disables M.2 Key_B USB function.

9.3.8 Trusted Computing

Feature	Description
Security Device Support	Security Device Support allows you to enable or disable BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available. Configuration options: [Enabled] [Disabled]
Active PCR banks	This item displays active PCR Banks.
Available PCR Banks	This item displays available PCR Banks.
SHA256 PCR Bank	SHA256 PCR Bank allows you to enable or disable SHA256 PCR Bank. Configuration options: [Enabled] [Disabled]
SHA384 PCR Bank	SHA384 PCR Bank allows you to enable or disable SHA384 PCR Bank. Configuration options: [Enabled] [Disabled]
Pending Operation	Pending Operation allows you to schedule an Operation for the Security Device. NOTE: Your computer will reboot during restart in order to change State of the Device. Configuration options: [None] [TPM Clear]
Platform Hierarchy	This item allows you to enable or disable Platform Hierarchy. Configuration options: [Enabled] [Disabled]
Storage Hierarchy	This item allows you to enable or disable Storage Hierarchy. Configuration options: [Enabled] [Disabled]
Endorsement Hierarchy	This item allows you to enable or disable Endorsement Hierarchy. Configuration options: [Enabled] [Disabled]
Physical Presence Spec Version	Select this item to tell OS to support PPI spec version 1.2 or 1.3. Please note that some HCK tests might not support version 1.3. Configuration options: [1.2] [1.3]

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TPM 2.0 InterfaceType	This item allows you to view the Communication Interface to TPM 2.0 Device: CRB or ITS.
Device Select	This item allows you to select the TPM device to be supported. [TPM 1.2] restricts support to TPM 1.2 devices. [TPM 2.0] restricts support to TPM 2.0 devices. [Auto] supports both TPM 1.2 and TPM 2.0 devices with the default set to TPM 2.0 de- vices. If TPM 2.0 devices are not found, TPM 1.2 devices will be enumerated.
Onboard TPM	The option enables or disables Intel PTT in ME. Disable this option to Use discrete TPM Module.

9.4 HW Monitor

This screen allows you to monitor the status of your system and installed devices, such as CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.

Feature	Description
CPU_Fan 1 Setting	This item allows you to select a fan mode for CPU Fan 1. The default value is [Full On]. Configuration options: [Full On] [Automatic Mode]
CHA_Fan 1 Setting	This allows you to set chassis fan 1's speed. The default value is [Full On]. Configuration options: [Full On] [Automatic Mode]
Case Open Feature	This item allows you to enable or disable case open detection feature. The default is value [Disabled].
Clear Status	This option appears only when the case open has been detected. Use this option to keep or clear the record of previous chassis intrusion status.

9.5 Security

The Security Screen lets you change or clear the supervisor / user passwords for the system.

Feature	Description
Supervisor Password	Set or change the password for the administrator account. Only the administrator has the authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.
User Password	Set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.
Secure Boot	Press [Enter] to configure the Secure Boot Settings. The feature protects the system from unauthorized access and malwares during POST.

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Secure Boot Mode	[Standard] Select this item and the system will automatically load the Secure Boot keys from the BIOS database. [Custom] Select this item and Secure Boot Policy variables can be configured by a physically present user without full authentication.
Install Default Secure Boot Keys	Please install default secure boot keys if it's the first time you use secure boot.
Clear Secure Boot Keys	This item appears only when you load the default Secure Boot keys. Use this item to clear all default Secure Boot keys.
Key Management	This item enables expert users to modify Secure Boot Policy variables without full authentication. This appears only when you set Secure Boot Mode to [Custom].

9.6 Boot

This section displays the available devices on your system for you to configure the boot priority and settings.

Feature	Description
Boot From Onboard LAN	The item allows the system to be waked up by the onboard LAN. Configuration options: [Enabled] [Disabled]
Setup Prompt Timeout	The item allows you to configures the number of seconds to wait for the UEFI setup utility. Configuration options: [1] - [65535]
Bootup Num-Lock	The item allows you to select whether Num Lock should be turned on or off when the system boots up. Configuration options: [On] [Off]
Full Screen Logo	[Enabled] Select this item to display the boot logo. [Disabled] Select this item to show normal POST messages.

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9.7 Exit

Feature	Description
Save Changes and Exit	When you select this option, the following message “Save configuration changes and exit setup?” will pop out. Select [Yes] to save the changes and exit the UEFI SETUP UTILITY.
Discard Changes and Exit	When you select this option, the following message “Discard changes and exit setup?” will pop out. Select [Yes] to exit the UEFI SETUP UTILITY without saving any changes.
Discard Changes	When you select this option, the following message “Discard changes?” will pop out. Select [Yes] to discard all the changes.
Load UEFI Defaults	The item allows you to load UEFI default values for all options. The F9 key can be used for this operation.
Launch EFI Shell from filesystem device	The item allows you to copy shellx64.efi to the root directory to launch EFI Shell.

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Safety Instructions

For user safety, please read and follow all instructions, Warnings, Cautions, and Notes marked in this manual and on the associated device before handling/operating the device, to avoid injury or damage.

S'il vous plaît prêter attention stricte à tous les avertissements et mises en garde figurant sur l'appareil , pour éviter des blessures ou des dommages.

- Read these safety instructions carefully.
- Keep the User's Manual for future reference.
- Read the Specifications section of this manual for detailed information on the recommended operating environment.
- When installing/mounting or uninstalling/removing device; or when removal of a chassis cover is required for user servicing (See "Getting Started"):
  [> Turn off power and unplug any power cords/cables.
  [> Reinstall all chassis covers before restoring power.
- To avoid electrical shock and/or damage to device:
  [> Keep device away from water or liquid sources.
  [> Keep device away from high heat or humidity.
  [> Keep device properly ventilated (do not block or cover ventilation openings).
  [> Always use recommended voltage and power source settings.
  [> Always install and operate device near an easily accessible electrical outlet.
  [> Secure the power cord (do not place any object on/over the power cord) and connect it to a socket-outlet with earthing connection.
  [> Only install/attach and operate device on stable surfaces and/or recommended mountings.
- If the device will not be used for long periods of time, turn off and unplug from its power source.
- Never attempt to repair the device, which should only be serviced by qualified technical personnel using suitable tools.
- A Lithium-type battery may be provided for uninterrupted backup or emergency power.



Risk of explosion if battery is replaced with one of an incorrect type; please dispose of used batteries appropriately.

Risque d'explosion si la pile est remplacée par une autre de type incorrect. Veuillez jeter les piles usagées de façon appropriée.

- The device must be serviced by authorized technicians when:
  [> The power cord or plug is damaged.
  [> Liquid has entered the device interior.
  [> The device has been exposed to high humidity and/or moisture.
  [> The device is not functioning or does not function according to the User's Manual.
  [> The device has been dropped and/or damaged and/or shows obvious signs of breakage.
- Disconnect the power supply cord before loosening the thumbscrews and always fasten the thumbscrews with a screwdriver before starting the system up.
  [> The equipment is not intended to be installed or used in a home, school, or public area accessible to the general population.
  [> The knurled thumb screws with slotted heads for each Node module should be tightened with a tool after both initial installation and subsequent use.
- It is recommended that the device be installed only in a server room or computer room where access is:
  [> Restricted to qualified service personnel or users familiar with restrictions applied to the location, reasons therefore, and any precautions required.
  [> Only afforded by the use of a tool or lock and key, or other means of security, and controlled by the authority responsible for the location.
- Please use an approved power source certified by IEC or UL. If you need an adapter, optional accessories, or further assistance, please contact ADLINK for more information.

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BURN HAZARD
Touching this surface could result in bodily injury. To reduce risk, allow the surface to cool before touching.

RISQUE DE BRÛLURES
Ne touchez pas cette surface, cela pourrait entraîner des blessures. Pour éviter tout danger, laissez la surface refroidir avant de la toucher.

- Lisez attentivement ces consignes de sécurité
- *Conservez le manuel de l'utilisateur pour pouvoir le consulter ultérieurement*
- *Lisez la section Spécifications de ce manuel pour des informations détaillées sur l'environnement d'exploitation recommandé*
- Lors de l'installation/montage ou de la désinstallation/retrait de l'appareil ; ou lorsque le retrait d'un boîtier est nécessaire pour l'entretien par l'utilisateur (voir Mise en route) :
  - Éteignez l'alimentation et débranchez tous les cordons/câbles d'alimentation.
  - Réinstallez tous les panneaux du boîtier avant de remettre l'alimentation sous tension.
- *Pour éviter les chocs électriques et/ou d'endommager l'appareil :*

  - *Tenez l'appareil à l'écart de toute source d'eau ou de liquide*
  - *Tenez l'appareil à l'écart d'une forte chaleur ou d'une humidité élevée*
  - *Maintenez l'appareil correctement ventilé (n'obstruer ou ne couvrez pas les ouvertures de ventilation)*
  - *Utilisez toujours les réglages de tension et de source d'alimentation recommandés*
  - *Installez et utilisez toujours l'appareil près d'une prise de courant facilement accessible*
  - Fixez le cordon d'alimentation (ne placez aucun objet sur/au-dessus du cordon d'alimentation) et connectez-le à une prise de courant avec mise à la terre
- N'essayez jamais de réparer l'appareil, qui doit être réparé uniquement par du personnel technique qualifié *et utilisant des outils appropriés.*
  - *Lors de l'installation/montage ou de la désinstallation/retrait d'un périphérique, ou lorsque le retrait d'un couvercle de châssis est requis pour l'entretien par l'utilisateur :*
  - *Coupez l'alimentation et débranchez tous les cordons/câbles d'alimentation.*
- *Réinstallez tous les capots du châssis avant de rétablir l'alimentation. Installez/fixez et utilisez l'appareil uniquement sur des surfaces stables et/ou des supports recommandés.*
- *Si l'appareil n'est pas utilisé pendant une longue période, éteignez-le et débranchez-le de sa source d'alimentation.*
- *Une batterie de type lithium peut être fournie pour une alimentation de secours ou de secours ininterrompue.*

  - *L'appareil doit être réparé par des techniciens agréés lorsque :*
  - *Le cordon d'alimentation ou la fiche est endommagé.*
  - *Du liquide est entré dans l'appareil. € L'appareil a été exposé à une humidité élevée et/ou à l'humidité.*
  - *L'appareil ne fonctionne pas ou ne fonctionne pas conformément au manuel de l'utilisateur.*

- *L'appareil est tombé et/ou a été endommagé et/ou présente des signes évidents de casse.*
- *Débranchez le cordon d'alimentation avant de desserrer les vis moletées et fixez toujours les vis moletées avec un tournevis avant de démarrer le système.*
  - *L'équipement n'est pas destiné à être installé ou utilisé dans une maison, une école ou une zone publique accessible au grand public.*
  - *Les vis à molette avec têtes fendue pour chaque module Node doivent être serrées avec un outil après l'installation initiale et lors de l'utilisation suivante.*
- *Il est recommandé d'installer l'appareil uniquement dans une salle de serveurs ou une salle informatique dont l'accès est :*

  - *Réservé au personnel de service qualifié ou aux utilisateurs familiers avec les restrictions appliquées à l'emplacement, les raisons de celles-ci et les précautions requises.*
  - *Autorisé uniquement par l'utilisation d'un outil ou d'une serrure et d'une clé, ou d'autres moyens de sécurité, et contrôlé par l'autorité responsable du lieu.*

Veuillez utiliser une source d'alimentation approuvée et certifiée par la norme IEC ou UL. Si vous avez besoin d'un adaptateur, d'accessoires en option ou d'une assistance supplémentaire, veuillez contacter ADLINK pour plus d'informations.

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Getting Services

Ask an Expert: https://www.adlinktech.com/en/Askanexpert

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