

ADM-AL30

Intel® 14/13/12th Gen Core™ i9/i7
 and NVIDIA GPU Autonomous Driving
 AI Decision Making ECU



ADM

Features

- Intel® 14/13/12th Gen Core™ I processor (LGA 1700)
- NVIDIA RTX 4000 SFF Ada
- Automotive Ethernet: 8x 1G Base-T1
- 4x CAN 2.0; 8x CAN FD (optional with M.2 CAN module)
- Automotive Connectors
- E-mark, ISO 7637-2 and ISO-16750 (Design compliance)

Ordering Information

PN Number	Model Name	Description
93-41056-000E	ADM-AL30/i9-12900E/ RTX 4000 SFF/128G	ADM-AL30 with top Fan, Alder Lake i9-12900E, DDR5 128G ECC, RTX 4000 SFF, M.2 512G x1, SATA 2T x1, CAN 2.0 x 4, CAN FD x 8 (optional), Ignition, DC 9-36V
93-41056-100E	ADM-AL30/i7-12700E/ RTX 4000 SFF/128G	ADM-AL30 with top Fan, Alder Lake i7-12700E, DDR5 128G ECC, RTX 4000 SFF, M.2 512G x1, SATA 2T x1, CAN 2.0 x 4, CAN FD x 8 (optional), Ignition, DC 9-36V

Note: Gen 12 with the SKUs mentioned above has completed validation. Gen 13 and Gen 14 are pin-to-pin compatible which will be released in near future. Please contact ADLINK representative for details

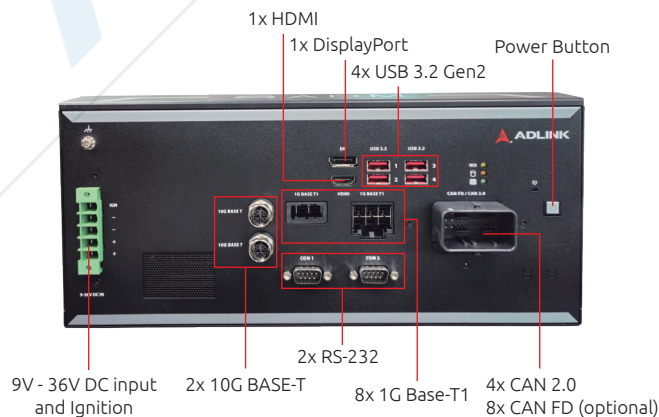
Optional Accessories

PN Number	Description
31-62192-0000-A0	AC/DC Adapter, 450W
30-01322-0020-A0	M12 to RJ45 cable for 10G Ethernet

Specifications

ADM-AL30		
System Core	CPU	Intel® 14/13/12th Gen Core™ I processor
	GPU	1x NVIDIA RTX 4000 SFF Ada
	Memory	4x 32G DDR5 SO-DIMM, up to 128G, with 2 channel ECC
	Storage	1x 512G M.2 2280 NVME SSD 1 x 2T 2.5" SATA SSD
I/O Ports	Display	1x HDMI, 1x DP
	Ethernet	2x 10G BASE-T (M12 connector) 8x 1G Base-T1 (TE MATENet Connector)
	CAN	4x CAN 2.0 (Molex CMC connector) 8x CAN FD (optional, Molex CMC connector)
	USB 3.0	4x USB 3.2 Gen2, type A
	Serial Port	2x RS-232
Extension Slot	M.2	1x M.2 2230, E-key, PCIe gen3 x1 (for WiFi/BT module) 2x M.2 2280, M-key, PCIe gen3 x2 (for optional CAN FD modules)
	Power Requirements	DC Power Input: 9-36 VDC Ignition Control: Built-in ignition power control AC/DC Power Adapter: 450W adapter (optional) Power Button: 1x Power On/Off button Fail Reset: 1x Hardware reset button
Mechanical	Dimensions	325mm x 258mm x 145mm
	IP	IP20
Environmental	Operating Temperature	-20°C to 60°C (without GPGPU card) 0°C to 45°C (with GPGPU card)
	Operating Humidity	~95% @ 40°C (non-condensing)
	Storage Temperature	-40°C to 85°C
	Vibration	3Grms, random, 5-500 Hz, 3 axes / 1hr (w/SSD) 5Grms, random, 5-500Hz, 3 axes / 30 mins (w/SSD)
	Shock	50 G, half sine 11ms duration (w/SSD)
	ESD	Contact +/- 4KV, Air +/- 8KV
	EMC	CE/FCC, class A, EN 55032/35 ; ISO 7637-2: 2011, Level 3, E-Mark, RCM
	Design Compliance	ISO 16750-2
Software	OS	Ubuntu 22.04.03 supported
	TPM	TPM 2.0

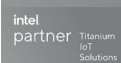
I/O View



CPU Support List

Family	Number	CPU Core	Frequency	Cache	Processor Base Power
Alder Lake	i9-12900E	16	5.0 GHz	30 MB	65 W
Alder Lake	i9-12900TE	16	4.8 GHz	30 MB	35 W
Alder Lake	i7-12700E	12	4.8 GHz	25 MB	65 W
Alder Lake	i7-12700TE	12	4.7 GHz	25 MB	35 W
Alder Lake	i5-12500E	6	4.5 GHz	18 MB	65 W
Alder Lake	i5-12500TE	6	4.3 GHz	18 MB	35 W
Alder Lake	i3-12100E	4	4.2 GHz	12 MB	65 W
Alder Lake	i3-12100TE	4	4.0 GHz	12 MB	35 W
Raptor Lake	i9-13900E	24	5.2 GHz	36 MB	65 W
Raptor Lake	i9-13900TE	24	5.0 GHz	36 MB	35 W
Raptor Lake	i7-13700E	16	5.1 GHz	30 MB	65 W
Raptor Lake	i7-13700TE	16	4.8 GHz	30 MB	35 W
Raptor Lake	i5-13500E	14	4.6 GHz	24 MB	65 W
Raptor Lake	i5-13500TE	14	4.5 GHz	24 MB	35 W
Raptor Lake	i3-13100E	4	4.4 GHz	12 MB	65 W
Raptor Lake	i3-13100TE	4	4.1 GHz	12 MB	35 W
Raptor Lake Refresh	i9-14900	24	5.8 GHz	36 MB	65 W

Note : Turbo mode is not available on the ADM-AL30.



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