

# ARES-1983H Series

Compact Embedded Computer with Intel® 12<sup>th</sup>/13<sup>th</sup> Gen. Core™ i7/i5/i3 Processor

ARES-1983H



ARES-1983H-MV



## Features

- Socket LGA1700 for Intel® 12<sup>th</sup>/13<sup>th</sup> Core™ i7/i5/i3 Processor
- Fansink Design - Active Cooling without internal Dust Accumulation
- Modular Design - Easily expandable and customizable
- Support up to 6 x USB & 7 x LAN(4 w/ PoE)
- Dual-Display for 1 x VGA and 1 x DisplayPort
- DI/DO with 1.5KV Isolation Protection, DI supports Connection of Dry & Wet Contact Devices
- M.2 2242/2280 M-Key Slot support SATA & NVMe(Gen4 x4)
- 2 x Internal USB 2.0 Type-A ports for HW License Key & Security Dongle

## System

CPU	Intel® 12 <sup>th</sup> /13 <sup>th</sup> Core™ i7/i5/i3 processor in LGA1700 Socket (Max.65W)
Memory	1 x 262-pin DDR5 SO-DIMM sockets, supporting 5600MHz SDRAM up to 32GB
Chipset	Intel® H610E
Graphics	Integrated Intel® UHD Graphics 730/770 1 x Intel® i226LM
LAN Chipset	1 x Intel® i219LM 5 x Intel® i210AT (4 x for GbE PoE)
Watchdog Timer	1~255 levels reset
TPM	dTPM 2.0

## I/O

Serial Port	1 x RS232
	1 x RS232 <sub>(Default)</sub> /422/485
	2 x USB-A 3.2 Gen2 (10Gbps)
USB Port	2 x USB-A 3.2 Gen1 (5Gbps)
	2 x USB-A 2.0
	2 x Internal USB-A 2.0
LAN	1 x 2.5GbE ports
	2 x GbE ports
	4 x GbE PoE ports(IEEE802.3af) (For ARES-1983H-MV)
Video Port	1 x DisplayPort 1.4, up to 4096x2304@60Hz
	1 x VGA, up to 1920x1200@60Hz
Digital I/O	16 x DI & 16 x DO w/ 1.5kV isolation (For ARES-1983H-MV)
Expansion Bus	1 x M.2 E-key 2230 slot (PCIe 3.0 x1 + USB2.0 + CNVi)
	1 x mPCIe (PCIe 3.0 x1 + USB 2.0, Full size) w/ 1 x nano SIM card slot
Others	4 x Antenna holes

## Storage

Type	1 x M.2 M-key 2242/2280 slot (PCIe 4.0 x4 + SATA) 1 x 2.5" HDD/SSD internal drive bay (For ARES-1983H-MV)
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## Power Requirement

Power Input	DC 12~24V via 2-pin terminal block
Max. Power Consumption	ARES-1983H (w/ 65W TDP CPU): 110W ARES-1983H-MV (w/ 65W TDP CPU): 170W

## Environmental

Operating Temp.	w/ 35W TDP CPU: -20 ~ 60°C, ambient w/ air flow
	w/ 65W TDP CPU: -20 ~ 50°C, ambient w/ air flow
Storage Temp.	-30 ~ 70°C
Operating Humidity	10-95% @ 60°C (non-condensing)
Vibration	5~500Hz 3 Grms X,Y,Z axis w/ SSD, according to IEC 68-2-64
	10G peak acceleration (11 m sec. duration), operation
Shock & Crash	30G peak acceleration (11 m sec. duration), nonoperation
	According to IEC 68-2-27

## Qualification

Certification	CE, FCC Class A
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## Mechanical

Construction	Metal + Aluminum
Mounting	Wall-mount (standard)
	DIN-rail (optional w/ CTOS bracket)
Weight	ARES-1983H: 2.5kg
	ARES-1983H-MV: 3.1kg
Dimensions (W x D x H)	ARES-1983H: 55 x 164 x 210mm
	ARES-1983H-MV: 90 x 164 x 210mm

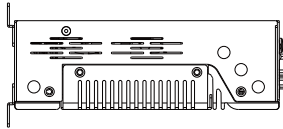
## OS Support

Windows 10 / Windows 11 / Ubuntu

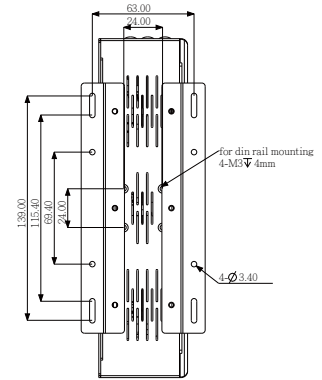
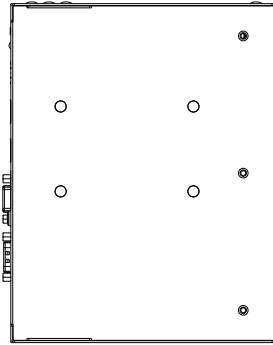
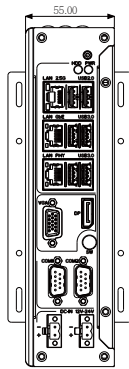
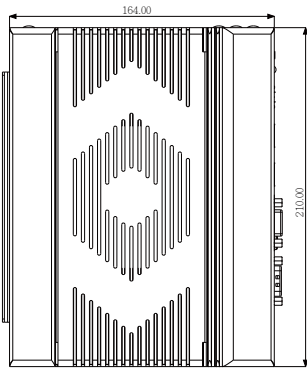
## Ordering Information

<b>ARES-1983H</b>	ARES-1983H w/ H610E Chipset, 3 x LAN, 2 x COM, 6 x USB, 1 x DP, 1 x VGA, 1 x M.2 E-Key, 1 x mPCIe & 1 x M.2 M-Key
<b>ARES-1983H-MV</b>	ARES-1983H w/ 4 x GbE PoE, 16 x isolated DI + 16 x isolated DO & 1 x 2.5" SSD/HDD tray

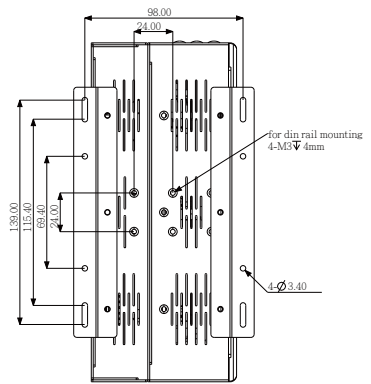
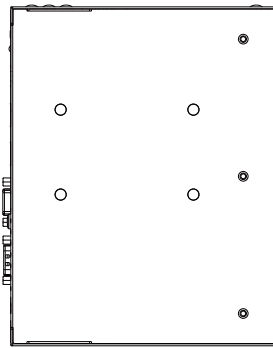
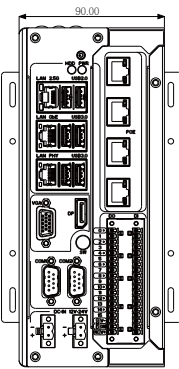
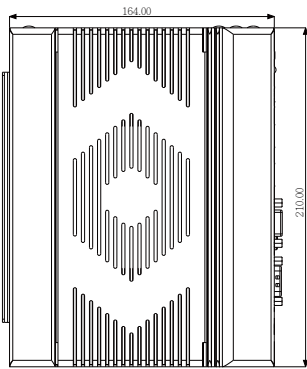
# Dimensions



**ARES-1983H**



**ARES-1983H-MV**



## Standard Accessories

WMK-1973 Wall Mounting Bracket Kit for ARES Series



## Optional Configuration (\*CTOS Kit)

PAC-120W6B-FSP-ES 19V/6.3A, 120W AC/DC Adapter Kit



PAC-180W6C-FSP-ES 24V/7.5A, 180W AC/DC Adapter Kit



WIFI-AT3550 Atheros QCNFA324 M.2 Wi-Fi+BT Module Kit (w/ 2 x 30cm RF Cable)

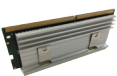


ANT-D11 1 x Wi-Fi Dual-band 2.4G/5G Antenna Kit

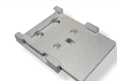


ANT-H11 1 x 2dBi HSUPA Antenna Kit

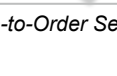
LTE-4450 Quectel EG25-G mPCIe LTE Cat 4 Module Kit (for Global, w/ 1 x 25cm RF Cable)



MK-5C-8G/16G/32G DIMM Memory ASSY Kit 8G/16G/32G DDR5 Memory Kit (w/ Heatsink)



DRK-002 DIN Rail Mounting Bracket Kit for ARES Series



\*CTOS means Configure-to-Order Service.



### Optional Configuration (\*CTOS Kit)

Intel® Core™ i7-13700E	Intel® 13 <sup>th</sup> Gen. 65W processor, 16C/24T, 1.9GHz, L2: 24MB
Intel® Core™ i5-13500E	Intel® 13 <sup>th</sup> Gen. 65W processor, 14C/20T, 2.4GHz, L2: 11.5MB
Intel® Core™ i3-13100E	Intel® 13 <sup>th</sup> Gen. 60W processor, 4C/8T, 3.3GHz, L2: 5MB
Intel® Core™ i7-13700TE	Intel® 13 <sup>th</sup> Gen. 35W processor, 16C/24T, 1.1GHz, L2: 24MB
Intel® Core™ i5-13500TE	Intel® 13 <sup>th</sup> Gen. 35W processor, 14C/20T, 1.3GHz, L2: 11.5MB
Intel® Core™ i3-13100TE	Intel® 13 <sup>th</sup> Gen. 35W processor, 4C/8T, 2.4GHz, L2: 5MB
Intel® Core™ i7-12700E	Intel® 12 <sup>th</sup> Gen. 65W processor, 12C/20T, 2.1GHz, L2: 12MB
Intel® Core™ i5-12500E	Intel® 12 <sup>th</sup> Gen. 65W processor, 6C/12T, 2.9GHz, L2: 7.5MB
Intel® Core™ i3-12100E	Intel® 12 <sup>th</sup> Gen. 60W processor, 6C/12T, 2.9GHz, L2: 7.5MB
Intel® Core™ i7-12700TE	Intel® 12 <sup>th</sup> Gen. 35W processor, 12C/20T, 1.4GHz, L2: 12MB
Intel® Core™ i5-12500TE	Intel® 12 <sup>th</sup> Gen. 35W processor, 6C/12T, 1.9GHz, L2: 7.5MB
Intel® Core™ i3-12100TE	Intel® 12 <sup>th</sup> Gen. 35W processor, 4C/8T, 2.1GHz, L2: 5MB



*\*CTOS means Configure-to-Order Service.*