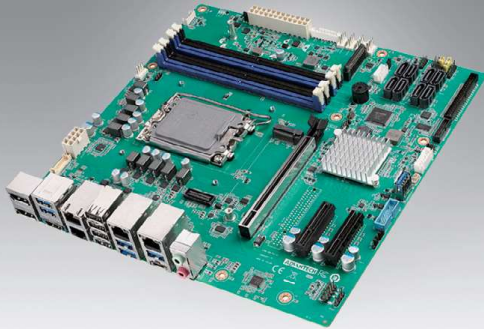


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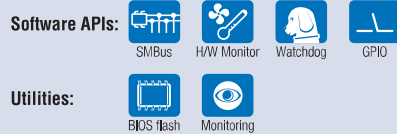
Intel® 12th Gen Core™ processors (Alder Lake-S) i9/i7/i5/i3 LGA1700, MicroATX with 2 DP/HDMI/eDP, 1 GbE LAN, 3 2.5GbE LANs, 8 USB 3.2, 1 USB 3.2 Type-C, 6 COM

NEW



Features

- Supports Intel® 12th Gen Core™ processors (Alder Lake-S) with Q670E/R680E/H610E chipset
- Supports up to 32GB DDR5 4400MT/s with four UDIMMs
- Four displays. (x2 DP++, HDMI, eDP)
- Intel AMT and Intel vPro Technology
- PCIe x16 slot Gen5, PCIe x4 slot Gen4, PCIe x4 slot Gen3
- Max up to x8 USB 3.2, x1 USB 3.2 Gen2 Type C, x4 USB 2.0, x8 SATAIII, x1 GbE LAN, x3 2.5GbE LANs, x1 M.2 M-Key
- Software VMD 0, 1, 5, 10, TPM 2.0
- WISE-DeviceOn and Embedded Software APIs



Specifications

	CPU	i9-12900E/ i9-12900TE	i7-12700E/ i7-12700TE	i5-12500E/ i5-12500TE	i3-12100E/ i3-12100TE	G7400E/ G7400TE	G6900E/ G6900TE	i9-12900	i7-12700	i5-12500	i5-12400	i3-12100	
Processor System	Core Number	16/16	12/12	6/6	4/4	2/2	2/2	16	12	6	6	4	
	Max. Speed	5.0GHz/ 4.8GHz	4.8GHz/ 4.7GHz	4.5GHz/ 4.3GHz	4.2GHz/ 4.0GHz	3.6GHz/ 3.0GHz	3.0GHz/ 2.4GHz	5.10GHz	4.9GHz	4.6GHz	4.4GHz	4.3GHz	
	Intel Smart Cache	30MB/30MB	25MB/25MB	18MB/18MB	12MB/12MB	6MB/6MB	4MB/4MB	30MB	25MB	18MB	18MB	12MB	
	TDP (W)	65W/35W	65W/35W	65W/35W	60W/35W	46W/35W	46W/35W	65W	65W	65W	65W	60W	
	Supports Model	AIMB-588Q, AIMB-588R, AIMB-588H											
	Chipset	Q670E/R680E/H610E											
BIOS	AMI BIOS UEFI 256 Mbits SPI												
Expansion Slot	PCIe x16 (Gen5)	1 slot											
	PCIe x8 (Gen4)	(1 slot, optional)											
	PCIe x4 (Gen3)	1 slot											
	PCIe x4 (Gen4)	1 slot											
Memory	Technology	Dual Channel DDR5 up to 4400 MT/s, ECC memory supported by CPU with Chipset R680E											
	Max. Capacity	128GB (32 GB per DIMM)											
	Frequency	4400MT/s (2DPC - 1DIMM 1R&2R), 4000MT/s (2DPC - 2DIMM 1R), 3600MT/s (2DPC - 2DIMM 2R)											
	Socket	Four 288-pin DDR5 UDIMM sockets, Dual Channel, Two DIMMs per channel											
Graphics	Controller	Intel UHD Graphics 770 Supports DirectX12, OpenGL 4.5											
	HDMI	1, up to resolution 4096*2160@ 60Hz, Supports HDR											
	eDP	1, up to resolution 3840 x 2160 @ 60 Hz (Internal pin header)											
	Display Port	2, up to 4096 x 2304 @ 60Hz											
	Four Display	DP + DP + HDMI + eDP											
	Triple Display	DP + DP + HDMI, DP + DP + eDP, DP + HDMI + eDP											
Ethernet	Controller	LAN1: 1GbE Intel I219-LM (AIMB-588Q/AIMB-588R/AIMB-588H) LAN2: 2.5GbE Intel I225-LM (AIMB-588Q/AIMB-588R) LAN3: 2.5GbE Intel I225-LM (AIMB-588R) LAN4: 2.5GbE Intel I225-LM (AIMB-588R)											
	Connector	RJ45 x2 (588Q) / RJ45 x4 (588R) / RJ45 x1(588H)											
SATA	Max Data Transfer Rate	600 MB/s Max. (SATA 3.0)											
	Qty	8 (AIMB-588Q); 8 (AIMB-588R); 4 (AIMB-588H)											
Rear I/O	Display Port	2											
	HDMI	1											
	Ethernet	2 (AIMB-588Q); 4 (AIMB-588R); 1(AIMB-588H)											
	USB	AIMB-588Q: 5 USB 3.2 Gen2 type A; 1 USB3.2 Gen2 Type C; 4 USB 2.0 type A AIMB-588R: 5 USB 3.2 Gen2 type A; 1 USB 3.2 Gen2 Type C; 4 USB 2.0 type A AIMB-588H: 2 USB 3.2 Gen2 type A; 4 USB 2.0											
	Audio	2 (Mic-in/ Line-out)											
Internal Connector	USB 3.2	AIMB-588Q: 3 USB 3.2 Gen1 AIMB-588R: 3 USB 3.2 Gen1 AIMB-588H: 2 USB 3.2 Gen1											
	USB 2.0	0											
	Serial	6 (5 x RS-232, 1 x RS-232/422/485 with auto flow control)											
	SATA 3.0	8											
	Extended Display Port (eDP)	1											
Watchdog Timer	M.2 (M key)	1 2280 NVMe PCIe4 (AIMB-588Q/AIMB-588R)											
	GPIO	8-bit GPIO											
Power Requirements	Output	System reset											
	Interval	Programmable 1 ~ 255 sec/min											
Environment	Power On	+5 V	3.3 V	12 V	12V_8P	5 Vsb							
	Temperature	19.6A	24.04A	19A	18.5A	2.5A							
Physical Characteristics	Dimensions	Operating 0 ~ 60° C (14 ~ 158° F), depends on CPU speed and cooler solution Non-Operating -40 ~ 85° C (-40 ~ 185° F)											
	Input Mode	244 mm x 244 mm (9.6" x 9.6")											