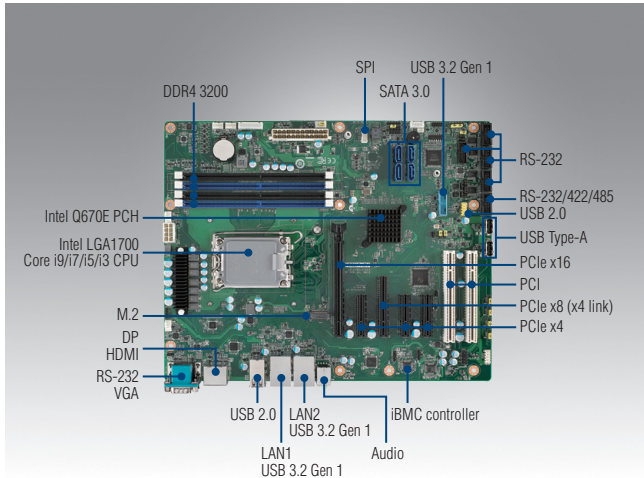


# AIMB-788

## LGA1700 12th Generation Intel® Core™ i9/i7/i5/i3 ATX Motherboard with DP/HDMI/VGA, DDR4, USB 3.2, M.2



### Features

- Intel® 12th generation Core™ i9/i7/i5/i3 & Pentium®/Celeron® processor with Q670E chipset
- Four DIMM sockets up to 128 GB DDR4 3200
- Triple display DP/HDMI/VGA and dual GbE LAN
- M.2, SATA RAID 0, 1, 5, 10, USB 3.2 Gen 2
- Supports Intel vPro, AMT & TPM technologies
- Advantech iBMC remote out-of-band power management solution on DeviceOn

Note 1: Legacy platform is not supported.

Note 2: dTPM 2.0 module is required to enable Intel vPro and TPM technologies.

Note 3: Intel® Platform Trust Technology (Intel® PTT) ready for Windows 11.

### Quiet Specifications



	CPU	i9-12900(E)	i9-12900TE	i7-12700(E)	i7-12700TE	i5-12500(E)	i5-12400	i5-12500TE	i3-12100(E)	i3-12100TE	Pentium G7400E	Pentium G7400TE	Celeron G6900E	Celeron G6900TE							
Processor System	P-core Base Frequency	2.4 GHz	1.1 GHz	2.1 GHz	1.4 GHz	3.0 GHz	2.5 GHz	1.9 GHz	3.3 GHz	2.1 GHz	3.6 GHz	3.0 GHz	3.0 GHz	2.4 GHz							
	L3 Cache	30 MB	30 MB	25 MB	25 MB	18 MB	18 MB	18 MB	12 MB	12 MB	6 MB	6 MB	4 MB	4 MB							
	Cores	16	16	12	12	6	6	6	4	4	2	2	2	2							
	Processor Base Power	65W	35W	65W	35W	65W	65W	35W	60W	35W	46W	35W	46W	35W							
	Socket	LGA 1700																			
	Chipset	Q670E																			
	BIOS	AMI 256MB SPI Flash																			
Expansion Slot	PCI	2																			
	PCIe x4 (Gen 3)	3																			
	PCIe x8 (Gen 3)	1 (x4 link)																			
	PCIe x16 (Gen 4)*	1																			
Memory	Technology	Dual Channel DDR4 3200 Non-ECC UDIMM																			
	Max Capacity	128 GB																			
	Sockets	4 x 288-pin DIMM																			
Graphics	Controller	Chipset integrated Intel UHD Graphics																			
	VRAM	Shares system memory is subjected to OS																			
Ethernet	Interface	10/100/1000 Mbps																			
	Controller	GbE LAN1: Intel I219-LM (PHY); GbE LAN2: Intel I210-AT																			
	Connector	2 x RJ-45																			
SATA	Max. Data Transfer Rate	600 MB/s																			
	Channel	4																			
	RAID	0, 1, 5, 10																			
Rear I/O	VGA	1 (Resolution up to 1920 x 1200 @ 60Hz)																			
	HDMI	1 (Resolution up to 3840 x 2160 @ 60Hz)																			
	DisplayPort	1 (Resolution up to 4096 x 2304 @ 60Hz)																			
	Ethernet	2																			
	USB	8 (2 x USB 3.2 Gen 2, 2 x USB 3.2 Gen 1, 4 x USB 2.0)																			
	Audio	2 (Line-out, Mic-in)																			
	Serial	1 (RS-232)																			
Watchdog Timer	Output	System reset																			
	Interval	Programmable 1 ~ 255 sec																			
Power Requirement	Power On	Intel Core i 65W , DDR4 32 GB x 4																			
	Voltage	+3.3 V					+5 V					+12 V			+5 Vsb			-12 V			-5 V
	Current	1.41 A					2.42 A					9.3 A			0.13 A			0.04 A			0.05 A
Internal Connectors	USB	6 (2 x USB 3.2 Gen 1 via pin header, 2 x USB 2.0 via pin header, 2 x USB 2.0 type A connector)																			
	Serial	5 (4 x RS-232, 1 x RS-232/422/485)																			
	SATA	4																			
	M.2	1 (PCIex4 M-key 2280 type)																			
	SPI	1 (Optional dTPM 2.0 module available)																			
	GPIO	8-bit																			
Environment	Operating										Non-Operating										
	Temperature	0 ~ 60 °C (32 ~ 140 °F), depends on CPU loading and system thermal solution									-40 ~ 85 °C										
	Humidity	95% @ 40 °C, non-condensing									95% @ 60 °C, non-condensing										
Physical Characteristics	Dimension (L x H)	304.8 x 244 mm (12" x 9.6")																			

\* The PCIe x16 slot, from CPU, can only support graphic cards and storage cards according to the specification recommended by Intel. Other types of add-on cards might not work properly. For the compatible device list validated on the PCIe x16 slot, please refer to the user manual.



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