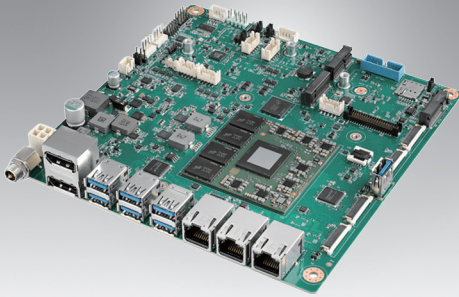


# AIMB-293

## Mini-ITX Motherboard Qualcomm Dragonwing IQ-X

Preliminary



### Features

- Supports Qualcomm Dragonwing IQ-X SoC
- Supports up to 16GB LPDDR5 8533MT/s
- 1 x M.2 M-Key 2280 slots (PCIe Gen4 x4) for high-speed NVMe SSDs
- 9 x USB3.2 Gen1x1 and 2 x USB2.0
- QFCS cooling system makes Compact and One piece easy integration
- WISE-DeviceOn and Embedded Software APIs

#### Software APIs:



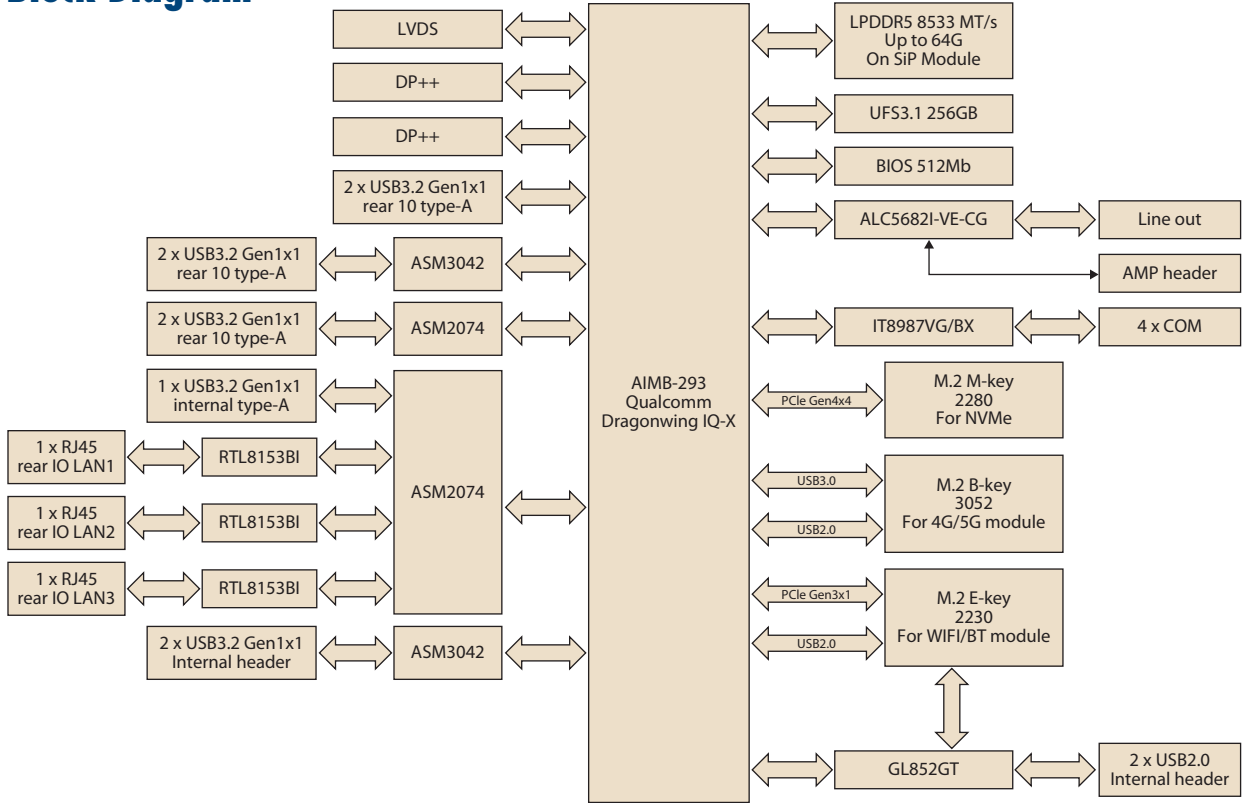
#### Utilities:



### Specifications

Processors	SoC	Qualcomm Dragonwing IQ-X X1E-78-100
	Core	12
	Max Speed (GHz)	3.4
	L2 Cache (MB)	36
	L3 Cache (MB)	6
Processor System	TDP (W)	101.1
	BIOS	Insyde EFI 512 Mbit SPI
Memory	Technology	LPDDR5
	Frequency	8533 MT/s
	Max. Capacity	16GB
	ECC Support	No
Graphics	Controller	Adreno GPU architecture
	DP	2 x DP 1.4, up to 4095 x 2160 @60Hz
	LVDS	1 x LVDS dual channel 48bits, up to 1920x1200 @ 60Hz (default)
	Multi Displays	up to 2 independent displays
TPM	ITPM	Yes, inside SoC
Audio	Codec	Realtek ALC5682I-VE-CG
	Amplifier	Max. 6W
	Ethernet	10/100/1000 Mbps
Network	Controller	LAN1: 1 x Realtek RTL8153BI-CG 1GbE LAN2: 1 x Realtek RTL8153BI-CG 1GbE LAN3: 1 x Realtek RTL8153BI-CG 1GbE
	Connector	3 x RJ45
	Expansion Slot	M.2
Rear I/O	DP	2
	USB	6 x USB3.2 Gen1 x1, type-A
	RJ45	3
	Power Connector	1 x Lockable DC-in connector
Internal Connector	USB	2 x USB3.2 Gen1 x1, box header 1 x USB3.2 Gen1 x1, vertical type-A 2 x USB2.0 , header
	LVDS	1
	Serial	2 x RS-232 (with RI/5V/12V select by jumper) 2 x RS-232/422/485
	M.2	3
	CPU & System Fan Connector	1 x PWM CPU Fan 1 x PWM SYS Fan
	Power Connector	1
	GPIO	1 x 8-bit
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 (second or minute)
Power Requirements	Input voltage	12-24V DC-in (tolerance: min. 10.8-max. 28V)
	Connector	Rear: Lockable DC-in connector Internal: 8-pin ATX power connector
	Power Consumption	Configuration: Max. : Typical :
Environment	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F)
	Storage	Non-Operating: -40 ~ 85° C (-40 ~ 185° F)
Physical Characteristics	Dimensions	170 mm x 170 mm (6.69" x 6.69")

**Block Diagram**



**Ordering Information**

P/N	QC SiP	Memory	UFS	LVDS/eDP	DP	GbE	COM	USB3.2	USB2.0	M.2 E key	M.2 B key	M.2 M key	AMP
AIMB-29300-00A1	IQX7181MD	16G	1	1	2	3	4	9	2	1	1	1	(1)
AIMB-2930L-00A1	IQX5121MD	16G	1	1	2	3	4	9	2	1	1	1	(1)

(\*) Supports by BOM options

**Packing List**

P/N	Description	Quality
TBD	I/O port bracket	1
TBD	QFCS cooling system	1
193006770-01	M.2 device screw	3
204xxxxxx	Startup manual for AIMB-293	1

**Optional Accessory**

P/N	Description
1700020277-01	USB 3.0 cable 30cm with IO bracket
1700034405-01	USB 2.0 cable, 50cm
1700034404-02	Serial ports cable, 50cm

**Optional Chassis**

OS/API	Part No.

**Embedded OS/API**

P/N	Description	968 PN	Description

**I/O View**

