Shenzhen Geniatech Co.,Ltd.

i.MX 8M Plus AI Edge Computing PC specification

MODEL: APC880E

Revision History

VERSION	DATE	PAGE	DESCRIPTION	AUTHOR
V1.0	2025-2-13	7	Initial version	
V1.01	2025-3-31	7	Update product pictures	
V1.1	2025-8-29	6	1、Optimize the hardware design of Kinara computing power 2、Change the shell heat dissipation design 3、Increase fan cooling	
V1.11	2025-9-22	6	1、Change of temperature range 2、Corrected typographical errors	

CONTENTS

1. General Description

The i.MX 8M Plus AI Edge Computing PC is based on the high-performance i.MX 8M Plus SoC, Is the first NXP integrated transmission nerve processing unit (NPU) product, Running rates of up to 2.3 TOPS, Focus on machine learning and vision, multimedia, and industrial automation with high reliability, Also paired with the Kinara Ara-2 40 TOPS computing chip, Rapid prototyping of edge AI application scenarios, It can be widely used in machine learning and artificial intelligence, NPU vision system, advanced multimedia and industrial automation.

-- i.MX 8M Plus SoC

- i.MX 8M Plus SoC with 14nm FET process technology
- Quad-core 64-bit ARM Cortex A53 processor + Cortex-M7
- Integrated Neural Network Processing Unit (NPU) with 2.3 TOPS performance
- Highly efficient H.265/H.264/VP9 video decoding capability, supports up to 4K resolution

-- Kinara Ara-2 SoC

- 8 second-generation neural cores
- 16GB LPDDR4X memory
- 40 TOPS of high-performance computing power
- Supports TensorFlow,PyTorch,ONNX AI models

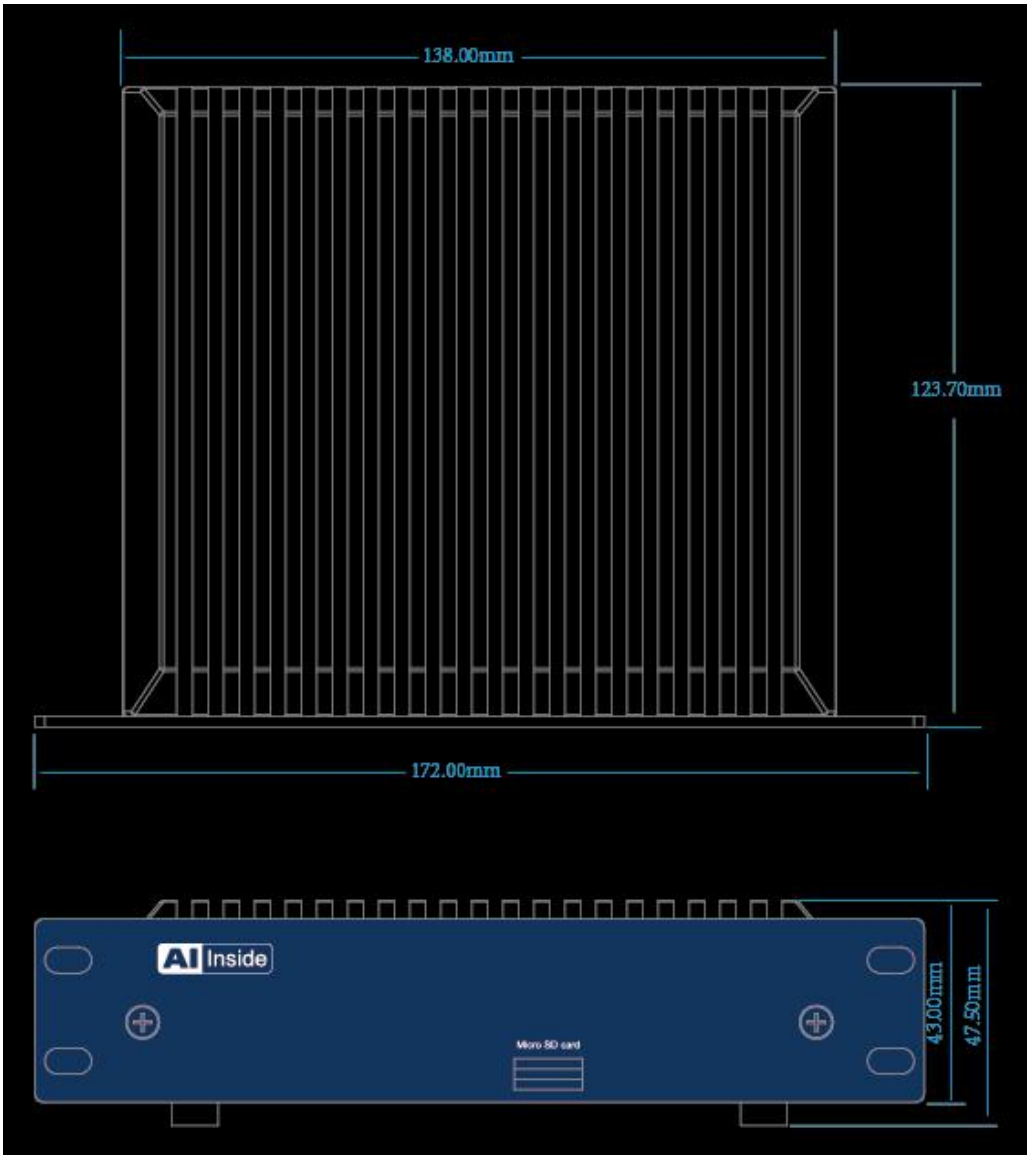
-- I/O interface

- 2 Giga Ethernet RJ45 ports
- Micro SD slot
- DC IN
- Built-in fan cooling

2. Product Overview

Below picture is for reference only, please prevails in kind.

Product exterior dimensional drawing:



3. Features

CHIPSET	NXP iMX8M Plus+Kinara Ara-2		
MARKET AREA	Global		
Core parameters	OS	Yocto(Linux)	
	SoC	4 x Cortex-A53, up to 1.8GHz&1 x Cortex-M7, up to 800MHz	
	GPU	GC7000UL with OpenCL and Vulkan support Supports OpenGL ES 1.1, 2.0, 3.0, OpenCL 1.2, Vulkan	
	NPU	iMX8M Plus	2.3 TOPS Neural Network performance
		Kinara Ara-2	40TOPS Neural Network performance TensorFlow,PyTorch,ONNX AI Model
	Memory	iMX8M Plus	4GB（1G-8G optional）
		Kinara Ara-2	16GB
	Storage	32GB eMMC5.1(8-128GB optional)	
I/O interface	Network Interface	2 x Giga Ethernet	
	Other interfaces	1 x System upgrade key 1 x Reset Key 1 x DC Jack 1 x USB Type C 1 x Micro SD slot	
	Power supply input	DC 12V /3A	
Other	Built-in fan cooling		
Size	172*123.7*47.5mm		
Weight	1050g		

4. Interface Function Description

No.	Function	Note
1	DC 12V Power supply input interface	
2	USB Type C OTG	
3	Upgrade button	
4	Restart button	
5	Giga Ethernet	

6	Giga Ethernet	
7	Micro SD card slot	

5. Video Parameter

Video Decode

- 1080p60 HEVC/H.265 Main, Main 10 (up to level 5.1)
- 1080p60 VP9 Profile 0, 2
- 1080p60 VP8
- 1080p60 AVC/H.264 Baseline, Main, High decoder

Video Encode

- 1080p60 AVC/H.264 encoder
- 1080p60 HEVC/H.265 encoder

Image Sensor Processor (ISP)

- 375 Mpixel/s HDR ISP supporting configurations, such as 12MP@30fps, 4kp45, or 2x 1080p80

6. Precautions For Use

- Relative humidity: ≤80% .
- Operation temperature: Commercial field：0~ 50℃； Industrial field: -40~85℃.
- Do not squeeze, bend or disassemble the product.
- Keep products away from static electricity.
- Do not allow water or other liquids to come into contact with the product.
- Clean the product with a soft dry towel or brush.