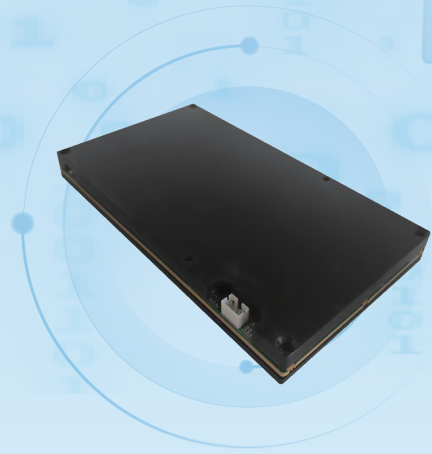


AI310SM Module



Key Feature

- AI Performance: 176 TOPS INT8
- Memory & Storage: 48GB LPDDR4X, 128GB eMMC
- Video Decode: Supports 96x 1080P@30fps/12x4K@60fps H.264/H.265
- JPEG Decode: 4K@384fps (FHD@2048fps)
- Interconnection: Supports high-speed chip-level interconnection for dual modules via HCCS bus
- Rich I/O Interfaces: 4 × SATA3.0, 4 × CAN-FD, 4 × UART, 4 × I2C, 4 × SPI, 2 × MDIO, 4 × PWM, 8 × GPIO
- Power Consumption: ≤ 120W
- Operating Temperature: Standard: 0°C ~ +65°C; Industrial Grade: -40°C ~ +85°C
- Input Voltage: DC 12V

Introduction

The AI310SM is a high-performance industrial-grade edge AI inference module based on the Ascend 310P processor, capable of providing up to 176 TOPS INT8 computing performance.

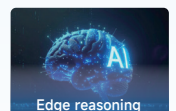
It not only uses high-reliability industrial-grade materials and strictly follows the JESD-046 standard, but also ensures long-term stable supply through the PCN notification mechanism, providing reliable protection for demanding industrial environments. At the same time, it supports HCCS dual-module high-speed interconnection technology with a total bandwidth of 192 Gbps, laying a solid foundation for building high-performance edge computing clusters.



Website



Generative AI



Edge reasoning

Specifications

AI Compute	176 TOPS INT8
GPU	DaVinciV200 10Core
GPU Max Frequency	1.08 GHz
CPU	ARMv8.2 16core TaishanV200M@max.
CPU Max Frequency	1.9 GHz
Memory	48GB LPDDR4X
Storage	128GB EMMC
Encode/Decode	Video Encode: 24x 1080P@30fps/3x4K@60fps H.264/H.265 Video Decode:96x 1080P@30fps/12x4K@60fps H.264/H.265 JPEG Encode: 4K@192fps (FHD@1024fps) JPEG Decode: 4K@384fps (FHD@2048fps) supports up/down scaling, crop, Chroma up/down sampling, color space conversion (FHD 4320FPS)
High-Speed Interface	Serdes: Reusable for XGE, PCIe, SATA, and HCCS interfaces XGE: Supports up to 8 XGE Serdes interfaces, with data rates of 10.3125/5/2.5 Gbps PCIe: Supports up to one PCIe Gen4 16x interface, compatible with 1x, 2x, 4x, and 8x
Other I/O	SATA: Supports 4 SATA 3.0 interfaces 、CAN-FD interface: Supports 4 isolated CAN-FD interfaces UART interface: Supports 4 three-wire UART interfaces 、I2C interface: Supports 4 I2C interfaces SPI interface: 4 SPI interfaces 、MDIO interface: Supports 2 sets of MDIO interfaces PWM interface: Supports 4 PWM interfaces 、GPIO interface: Supports 8 programmable GPIOs
Power	≤120W
Dimensions	140mm*80mm*17mm
Weight	≤0.5kg
Input Voltage	-40°C~65°C
Temperature	DC 12V
OS	RC/EP

Dimensions

