AI Computing Module SM7 32-EN4-23-HX



The intelligent computing module SM7 32-EN4-23-HX is equipped with the fourth-generation intelligent vision deep learning processor BM1684X. It can be integrated into edge computing boxes, intelligent NVRs, robots, and drones, efficiently adapting to various scenario-based deep learning algorithms to achieve applications such as facial recognition, video structuring, behavior analysis, and status monitoring. This module empowers deep learning in industries such as smart cities, smart power, smart transportation, and smart coal mining.

Ultra-high computing power, super decoding

- Supports FP32/FP16/INT8, capable of simultaneously decoding and intelligently analyzing 32 channels of HD video

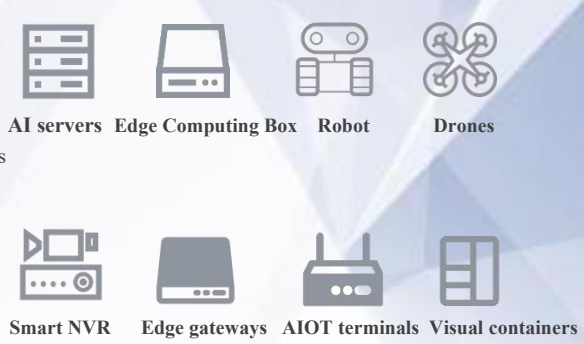
Wide temperature and low consumption, flexible deployment

- Wide temperature range of -20°C~+60°C, flexible to cope with different environments
- 2/3 credit card size, typical power consumption is less than 18W

Dual-mode drive, strong scalability

- PCIE Mode can be used as a slave device, and SOC Mode can be used as a master device
- Rich interfaces and convenient function expansion

Application scenarios



Product Specifications

Product Model		SM7 32-EN4-23-HX
Processor		8-core ARM A53@2.3GHz
Data processing capabilities		Supports FP32/FP16/INT8, capable of simultaneously decoding and intelligently analyzing 32 channels of HD vide
Video/Picture Codec	Video decoding	H.264 & H.265: 32 channels 1080P @25fps; maximum resolution supported 7680 x 4320
	Video encoding	H.264 & H.265: 12 channels 1080P @25fps; maximum resolution supported 7680 x 4320
	Image decoding (JPEG)	600 fps @1080P; maximum resolution supported: 32768 x 32768
Memory	Standard Configuration	16GB LPDDR4(x) 128bits 4266Mbps
Storage	Standard Configuration	64GB eMMC 5.1
Interface	PCIE	PCIE 3.0 x 8 EP + x 8 RC
	Network	10/100/1000Mbps RGMII x 2
	BUS	GPIO / SDIO / PWM / I2C ect.
Connectors	Specifications	260 PIN standard SODIMM
Operating temperature	Range	-20℃ ~ +60℃
Power consumption	Typical Value	18 W
Structural dimensions	Length * Width * Height	69.9 x 55 x 8 (mm)