Smart Computing Card SC5H

Smart Card SC5H is equipped with intelligent visual deep learning processor BM1684, which can be integrated into servers and industrial controllers, efficiently adapting to all deep learning algorithms in the market, realizing applications such as video structuring, face recognition, behavioral analysis, and state monitoring, and empowering the fields of smart city, smart transportation, smart energy, smart finance, smart telecommunication, smart industry, and so on.

Superior data processing capability

- Supports full-process handling of 16 channels of 1080P HD video.
- Supports mixed precision inference with FP32/INT8.

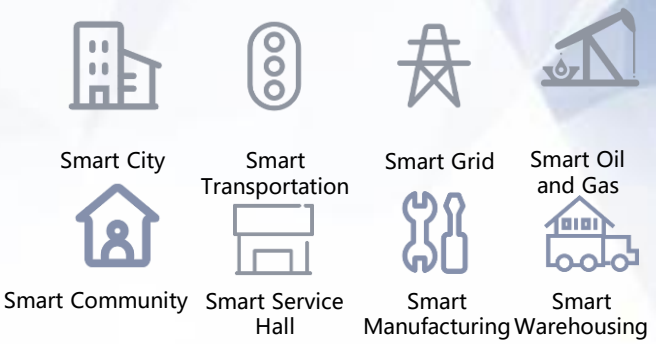
Excellent encoding and decoding capability

- 32 way 25fps HD video hardware decoding
- Video and image decoding resolution up to 8K

Widely compatible

- Fit for various servers and industrial control computers
- Compatible with various operating systems and mainstream algorithm frameworks

Application Scenario



Product Model		SC5H
processor unit		8 core A53 42320 DMIPS 2.3GHz
Data processing		Support FP32/IN8 mixed precision reasoning
Video/image encoding and decoding	Video decoding capability	H.264 & H.265: 1080P @960fps
	Video decoding resolution	8K / 4K / 1080P / 720P / D1 / CIF
	Video encoding capability	H.264 & H.265: 1080P @50fps
	Video encoding resolution	4K / 1080P / 720P / D1 / CIF
	Image decoding capability	JPEG: 800张/秒 @1080P
	Maximum resolution of image decoding	32768 * 32768
memory space	Standard configuration	12GB LPDDR4x 128bit 64GB/s
PCIe	Physical/power interface	PCIe Gen3 X16
	Data link	PCIe Gen3 X8
Power consumption	Maximum power consumption	30W
Working Environment	Temperature range	-10℃ ~ 55℃
	Heat dissipation method	Active cooling
Structural dimensions	Length * Height * Width	Half length, Half height, Single wide
Deep Learning Framework		TensorFlow / PyTorch / PaddlePaddle / Caffe / ONNX / MXNet / Tengine / DarkNet
Operating system support		Ubuntu / CentOS / Debian / UOS / Kylin
Main control processor support		Compatible with Intel, AMD, Feiteng, Haiguang, Shenwei, Loongson, etc.

Smart Computing Card SC5+

The Smart Card SC5+ is equipped with an intelligent visual deep learning processor BM1684, which can be integrated into servers and industrial control computers, effectively adapting to all deep learning algorithms on the market to achieve video structuring, face recognition, behavior analysis, state monitoring, and other applications, enabling smart cities, smart transportation, smart energy, smart finance, smart telecommunications, and smart industry.

Superior data processing capability

- Supports full-process handling of 48 channels of 1080P HD video.
- Supports mixed precision inference with FP32/INT8.

Excellent encoding and decoding capability

- 114-way 25fps HD video hardware decoding
- Video and image decoding resolution up to 8K

Widely compatible

- Fit for various servers and industrial control computers
- Compatible with various operating systems and mainstream algorithm frameworks

Application Scenario

Smart City | Smart Transportation | Smart Grid | Smart Oil and Gas

Smart Community | Smart Service Hall | Smart Manufacturing | Smart Warehousing

Product Model		SC5+	SC5 HA75
processor unit		24 core A53 126960 DMIPS 2.3GHz	
Data processing		Support FP32/IN8 mixed precision reasoning	
Video/image encoding and decoding	Video decoding capability	H.264 & H.265: 1080P @2880fps	
	Video decoding resolution	8K / 4K / 1080P / 720P / D1 / CIF	
	Video encoding capability	H.264 & H.265: 1080P @150fps	
	Video encoding resolution	4K / 1080P / 720P / D1 / CIF	
	Image decoding capability	JPEG: 1440fps @1080P	
	Maximum resolution of image decoding	32768 * 32768	
memory space	Standard configuration	36GB LPDDR4x 384bit 192GB/s	
PCIe	Physical/power interface	PCIe Gen3 X16	
	Data link	PCIe Gen3 X8	
Power consumption	Maximum power consumption	75W	
Working Environment	Temperature range	0℃ ~ 55℃	
	Heat dissipation method	passive cooling	active cooling
Structural dimensions	Length * Height * Width	Half height, Half length, Single-wide	Half height, Full length, Single width
Deep Learning Framework		TensorFlow / PyTorch / PaddlePaddle / Caffe / ONNX / MXNet / Tengine / DarkNet	
Operating system support		Ubuntu / CentOS / Debian / UOS / Kylin	
Main control processor support		Compatible with Intel, AMD, Feiteng, Haiguang, Shenwei, Loongson, etc.	