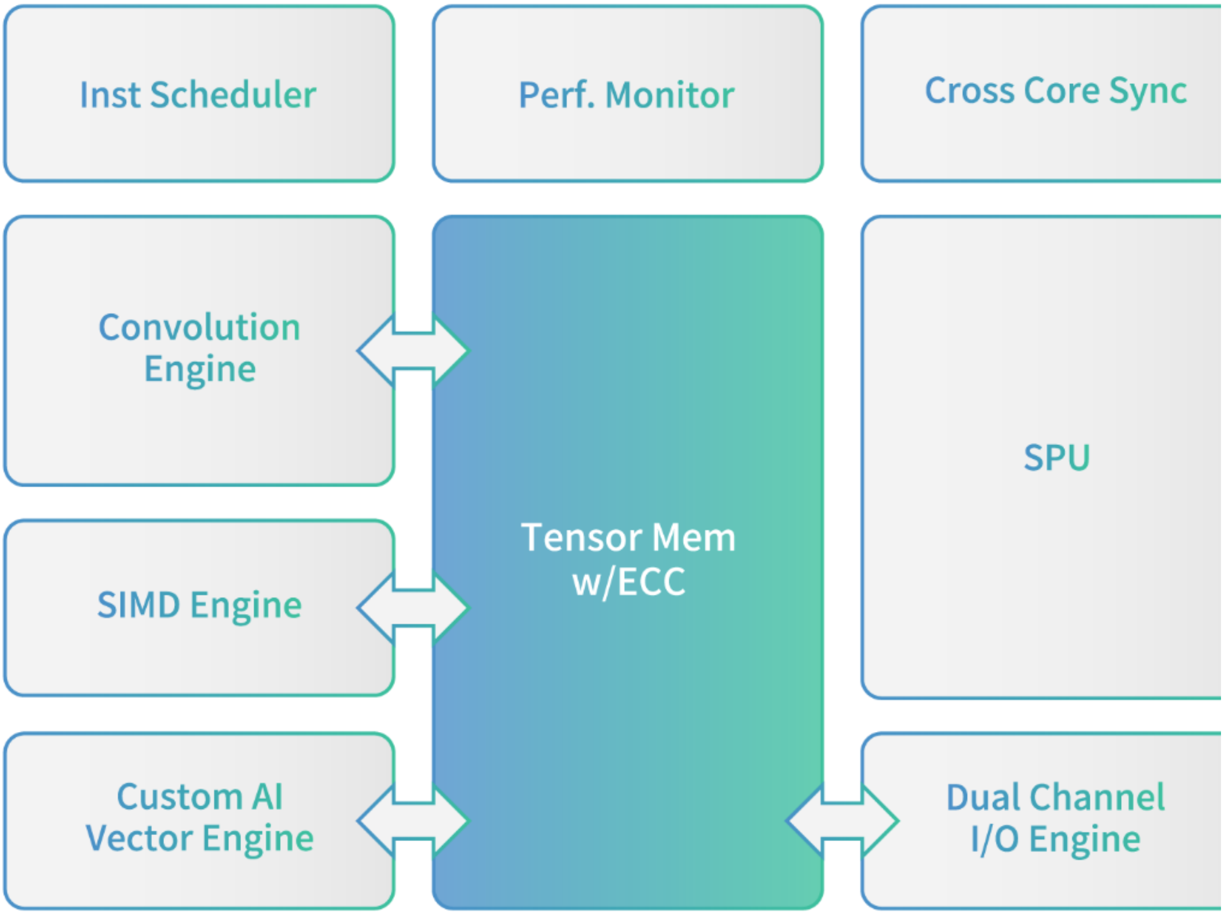
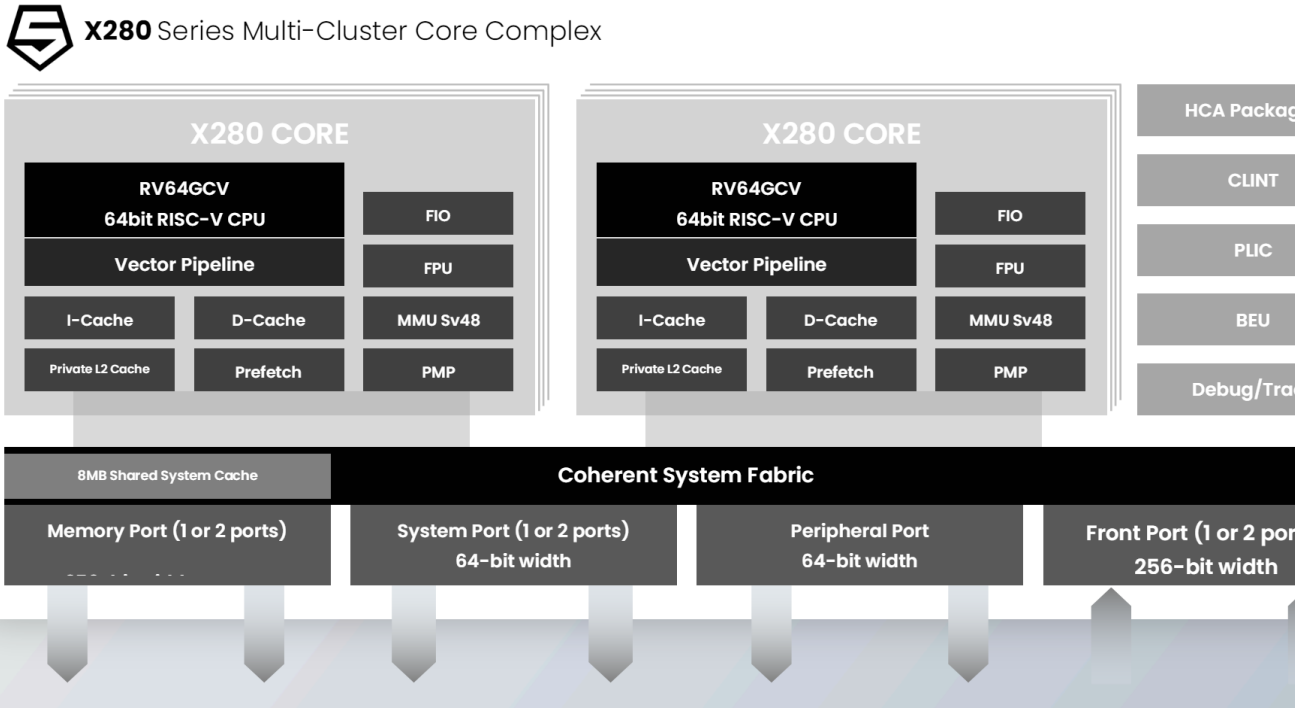
???????

1. NVIDIA Jetson Orin
2. HAILO Hailo-8 15 □□ domain-specific-dataflow-processing
   - □□□□□□□□□□ 5W□□□□□□□□□□ 10 □ token□ TPS□□□□□□□□ Llama2-7B□□□□□□□□□ Stable Diffusion 2.1 □□□□□□□□□□□□□□□□□□□□ Hailo-10 □□□□□□□□□□□□□□□□□□□□□□ 5□□□□□□□ Hailo-10□□□□□□□ 40 □□□□ TOPS□□□□□□□□□□□□□□□□ Hailo-10 □□□□□□□□□□□□□□□□ NPU□□□□□□□□□□□□□□□□□□□□□□□ Intel □ Core Ultra NPU□□□ Hailo-10□□□□□□□□□□□□□□□□ 2□□□□□□□
3. □□ 1684X □□□□ 17.6T □ INT8□□□□ LPDDR4x 68.3GB/s□□□□□ 16GB 17W
4. □□□□
5. □□□□□ https://d-robotics.cc
6. □□□□ https://www.listenai.com/products/chips/csk6
7. AMD□□□ Versal□□□□□□□ (SoC)□□□□□□□□□□□ □□ **AI** □□□□□□□□□□□ **Versal AI Edge**□□□□□□□□□□□□□□□□ **Versal Prime**□□□
8. Sophgo SG2380
9. □□□□ https://www.novauto.com.cn/

- 

10. sifive-intelligence-x280
    - the Vector Coprocessor Interface Extension (VCIX) [illegible] RISC-V Vector ISA [illegible] SiFive Intelligence Extensions [illegible] DSP [illegible] X280 [illegible] [illegible] [illegible] [illegible] [illegible]
    - RVV The X280 processor implements a 512-bit vector length architecture (VLEN), fully supporting the vector extension standard, with dynamic variable vector length operations. The vector ALU and load/store architecture data width (DLEN) is 256-bits.

- 

11. 云天励飞的新一代 AI芯片 DeepEdge10搭载公司自研的神经网络处理器 NNP400T

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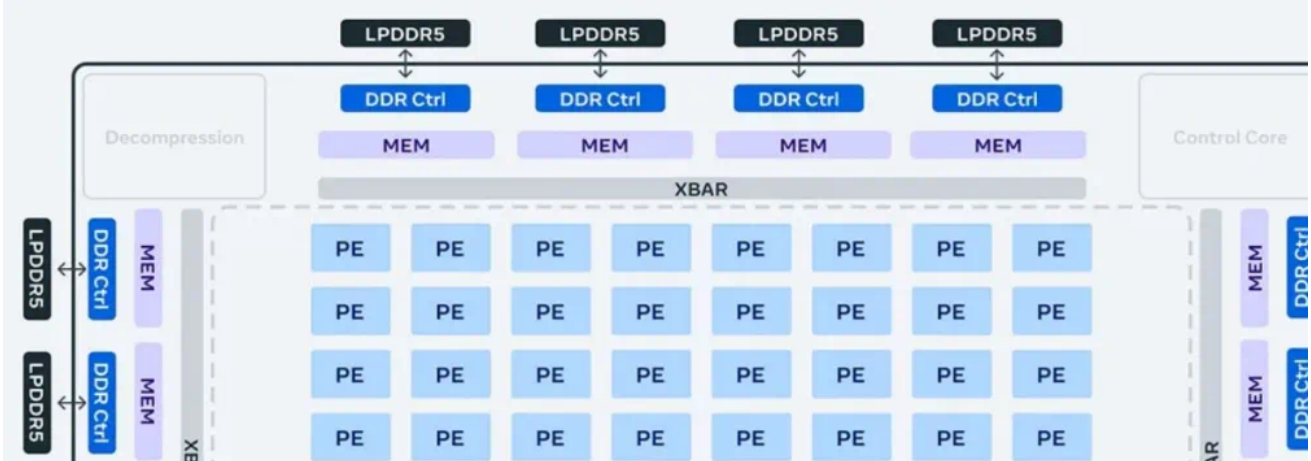
DeepEdge10Max

一款面向边缘大模型推理的高性能SOC芯片

采用D2D的chiplet片上互联技术，实现单芯片算力的灵活可扩，满足人工智能大模型边缘推理对算力
可广泛用于边缘CV大模型、NLP大模型的私有化部署场景。

通用处理器内核：
• 自研神经网络处理器 NNP400T；
• 提供48 TOPS (INT8)/24 TOPS (INT16)/8 TFLOPS (FP16) 的算力；
• 支持常用深度学习网络，如：CNN，RNN，Transformer，GNN 等；

12. Meta的 MTIA，该芯片将拥有 256MB 片上内存，频率为 1.3GHz，而 v1 的片上内存为 128MB 和 800GHz。新一代芯片的最新加速器由 8x8 个处理元件 (PE) 组成。这些 PE 显着提高了密集计算性能（比 MTIA v1 提高了 3.5 倍）和稀疏计算性能（提高了 7 倍）。这些提高一部分归功于架构的改进，另一部分归功于 PE 网格供电方式：Meta 将本地 PE 存储的大小增加了两倍，将片上 SRAM 增加了一倍，将其带宽增加了 3.5 倍，并将 LPDDR5 的容量增加了一倍。

- 

First Gen MTIA

Technology
TSMC 7nm

Frequency
800MHz

Instances
1.12B gates, 65M flops

Area
19.34mm x 19.1mm, 373mm2

Package
43mm x 43mm

Voltage
0.67V logic, 0.75V memory

TDP
25W

Host Connection
8x PCIe Gen4 (16 GB/s)

GEMM TOPS
102.4 TFLOPS/s (INT8)
51.2 TFLOPS/s (FP16/BF16)

SIMD TOPS
Vector core:
3.2 TFLOPS/s (INT8),
1.6 TFLOPS/s (FP16/BF16),
0.8 TFLOPS/s (FP32)
SIMD:
3.2 TFLOPS/s (INT8/FP16/BF16),
1.6 TFLOPS/s (FP32)

Memory Capacity
Local memory: 128 KB per PE
On-chip memory: 128 MB
Off-chip LPDDR5: 64 GB

Memory Bandwidth
Local memory: 400 GB/s per PE
On-chip memory: 800 GB/s
Off-chip LPDDR5: 176 GB/s

Next Gen MTIA

Technology
TSMC 5nm

Frequency
1.35GHz

Instances
2.35B gates, 103M flops

Area
25.6mm x 16.4mm, 421mm2

Package
50mm x 40mm

Voltage
0.85V

TDP
90W

Host Connection
8x PCIe Gen5 (32 GB/s)

GEMM TOPS
708 TFLOPS/s (INT8) (sparsity)
354 TFLOPS/s (INT8)
354 TFLOPS/s (FP16/BF16) (sparsity)
177 TFLOPS/s (FP16/BF16)

SIMD TOPS
Vector core:
11.06 TFLOPS/s (INT8),
5.53 TFLOPS/s (FP16/BF16),
2.76 TFLOPS/s (FP32)
SIMD:
5.53 TFLOPS/s (INT8/FP16/BF16),
2.76 TFLOPS/s (FP32)

Memory Capacity
Local memory: 384 KB per PE
On-chip memory: 256 MB
Off-chip LPDDR5: 128 GB

Memory Bandwidth
Local memory: 1 TB/s per PE
On-chip memory: 2.7 TB/s
Off-chip LPDDR5: 204.8 GB/s

Revision #2
Created 2025-01-11 09:46:28 UTC by Colin
Updated 2026-04-29 07:33:40 UTC by Colin