Tachyum™

Tachyum Prodigy™ T16128 Product Brief

Tachyum's Prodigy is first Universal Processor combining General Purpose Processors, High Performance Computing (HPC), Artificial Intelligence, Deep Machine Learning, Explainable AI, Bio AI, and other AI disciplines with a single chip. It allows for a simple programming model and environment based on coherent multiprocessor environment.

Core
- Up to 128 cores in a single socket
- 64 bit core with 512 bit vector operations
- AI/ML vector and matrix acceleration
- 4 instructions per clock up to 4GHz
- Virtualization and Advanced RAS

Fully Coherent Caches
- 32KB instruction cache with ECC
- 32KB data cache with ECC
- 64MB last level cache DECTED ECC

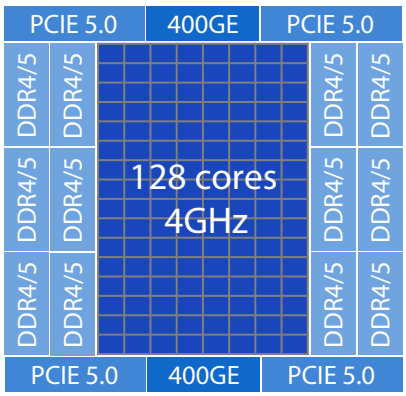
Memory Controllers
- 12 x DDR5 with 1 DIMM per channel
- DDR5 up to 4800 MT/s
- Max 512GB
- Advanced error correction and RAS

Integrated I/O
- 48 PCI Express 5.0 lanes, 36 controllers
- 2 x 400 Gigabit Ethernet

Package
- FCBGA 85 x 85 mm

Development Tools
- FPGA emulator in December 2019
- Software emulator and binary translator
- C/C++ and Fortran compilers
- Debuggers and profilers
- TensorFlow compilers
- Linux operating system

Applications
- Big data and Big AI applications
- 262 Tflops AI training and inference
- 16 Tflops High Performance Computing
- Exascale supercomputers



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