PRODUCT BRIEF

Tachyum Prodigy® T848 Universal Processor

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

The T848 integrates 48 high-performance, 64-bit cores, 8 DDR5 memory controllers up to DDR5-6400, and 48 lanes of PCIe 5.0 to address a wide range of applications for edge computing, hyperscale data centers, web-hosting, storage, high-density server solutions, and autonomous systems.

KEY FEATURES

High Performance Cores

- 48 64-bit cores in a single socket up to 5+ GHz
- 2 x 1024-bit vector units per core
- 4096-bit matrix processor per core
- Out-of-Order, 4 instructions per clock
- Virtualization and Advanced RAS

Fully Coherent Caches

- 64 KB I-Cache, 64 KB D-Cache, both with ECC
- 48 MB L2+L3 cache with DECTED ECC

High-Speed Memory Controllers

- 8 x DDR5 up to DDR5-6400
- Maximum 4 TB per socket

Integrated I/O

- 48 lanes PCI Express 5.0
- 24 PCIe Controllers

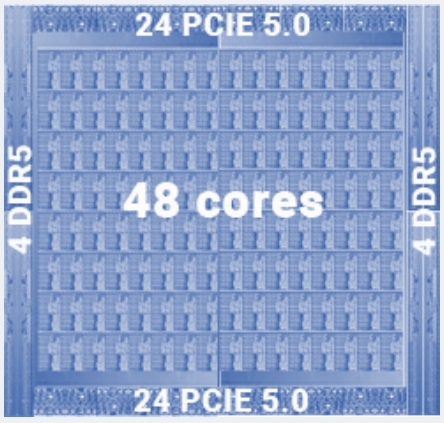
Additional Features

- 5nm Process Technology
- 64 mm x 84 mm FCLGA

High Performance Matrix and Vector Processing for AI/ML and HPC*

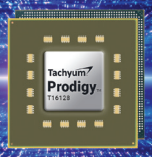
- 15 AI PetaFLOPS - TAI
- 22 DP TeraFLOPS - HPC

Runs binaries for x86, Arm, and RISC-V in addition to native ISA



*Preliminary specifications, may be subject to change

A single processor
that delivers industry leading performance



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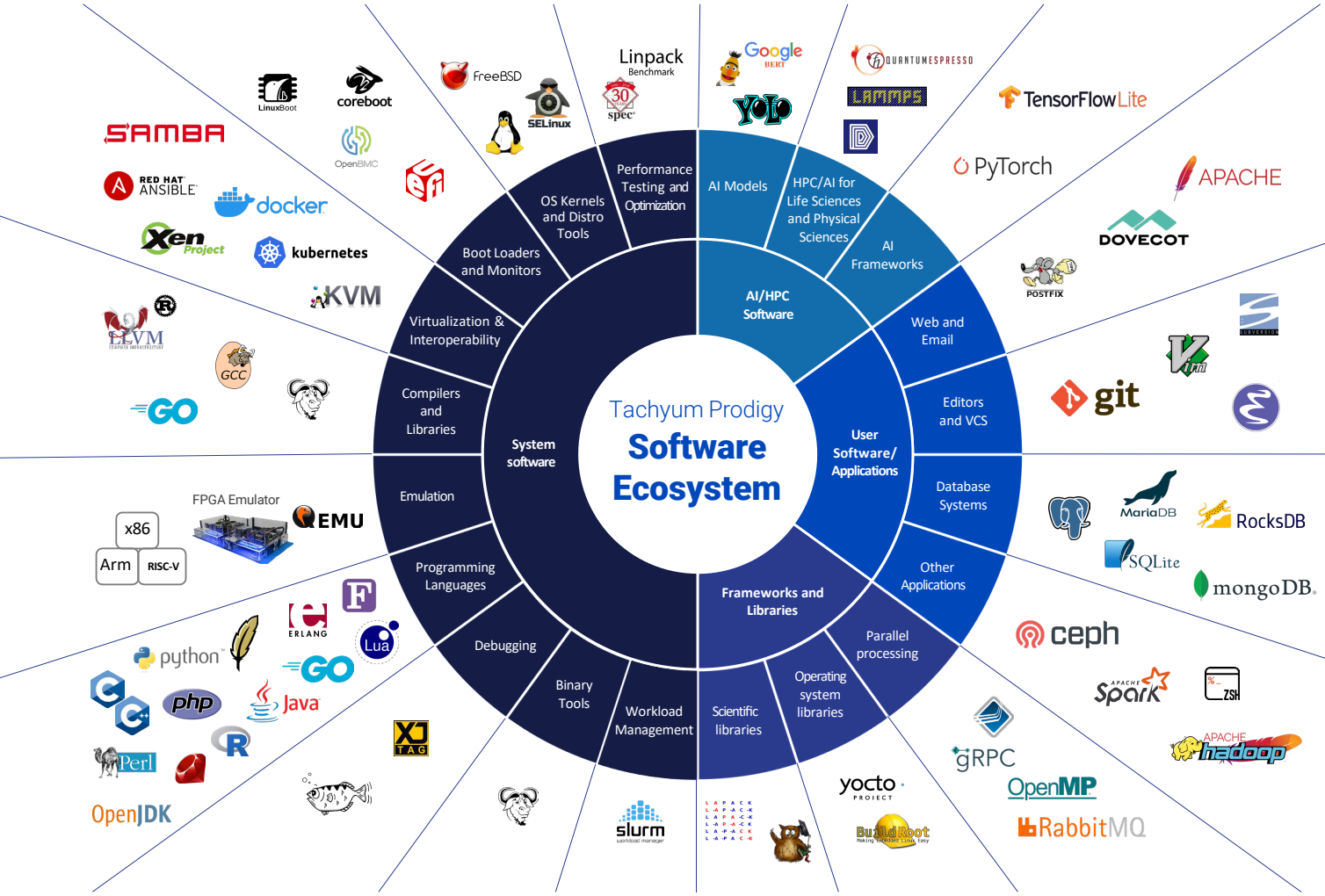
Target Applications

Cloud | Edge Computing | Storage | Web Hosting

Prodigy Software Ecosystem

Prodigy has a rich ecosystem of development tools, operating systems, application software, and software libraries to enable fast, easy development and quick time to market.



Complete Software Ecosystem at www.tachyum.com/sw

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www.tachyum.com

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