Tachyum Prodigy™ T216 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 16 cores
- 64 bit core with 512 bit vector operations
- AI/ML vector and matrix acceleration
- 4 instructions per clock up to 2.8 GHz

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

**Memory Controllers**
- 2 x DDR4 up to 2 DIMM per channel
- DDR4 up to 2667 MT/s
- Max 128GB
- ECC

**Integrated I/O**
- 12 PCI Express 4.0 lanes, 9 controllers
- 2 x 10 Gigabit Ethernet

**Package**
- FCBGA 37.5 x 37.5 mm

**Development Tools**
- Software emulator and binary translator
- C/C++ and Fortran compilers
- Debuggers and profilers
- TensorFlow compilers
- Linux operating system

**Applications**
- Very high-density low power servers
- Edge servers
- 28 Tflops AI training and inference
- Autonomous systems
- Tactical applications

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