Tachyum Prodigy™ T432 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 32 cores
- 64 bit core with 512 bit vector operations
- AI/ML vector and matrix acceleration
- 4 instructions per clock up to 3.2 GHz

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

Memory Controllers
- 4 x DDR4 up to 2 DIMM per channel
- DDR4 up to 3200 MT/s
- Max 256GB
- Advanced error correction

Integrated I/O
- 24 PCI Express 4.0 lanes, 18 controllers
- 2 x 50/25/10 Gigabit Ethernet

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

Applications
- Hyperscale datacenters
- Web hosting, storage applications
- 64 Tflops AI training and inference
- High-density server solutions
- Autonomous systems
- Tactical datacenters

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<th>PCIE 5.0</th>
<th>50GE</th>
<th>PCIE 5.0</th>
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<tr>
<td>DDR4/5</td>
<td>32 cores</td>
<td>3.2GHz</td>
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<td>DDR4/5</td>
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Package
- FCBGA 37.5 x 37.5 mm

www.Tachyum.com

Tachyum Inc., 2520 Mission College Blvd, Suite 201 Santa Clara, CA 95054, U.S.A.
Tachyum s.r.o., Karadžičova 14, 821 08 Bratislava, Slovak Republic

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