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Supermicro® 1U 4x GPU SuperServer® in Green500 #1 Ranked TSUBAME-KFC Supercomputer from Tokyo Institute of Technology GSIC

- TSUBAME-KFC Breaks Through 4 GFLOPS/Watt Barrier as World's Top Energy Efficient Supercomputer

TOKYO, Dec. 3, 2013 /PRNewswire/ -- Super Micro Computer, Inc. , a global leader in high-performance, high-efficiency server, storage technology and green computing delivers the industry's widest spectrum of high-density, energy-efficient HPC server solutions for the world's most energy efficient supercomputers. Solutions range from high-density compute 1U 4x GPU and 4U 2-node 12x GPU FatTwin(TM) (SYS-F647G2-FT+) SuperServers to new 4U architecture innovations with airflow optimized independent CPU/GPU cooling zones that support dual 150W CPUs, 8x 300W GPUs, 24x DIMM slots and dual 10GbE onboard (SYS-4027GR-TRT). Supermicro energy efficient supercomputing solutions are also available in varied configurations to fit any power/performance application across 1U, 2U, 3U, 4U/Tower, SuperBlade® and 6U MicroBlade platforms.

(Photo: <http://photos.prnewswire.com/prnh/20131203/AQ26400> [<http://photos.prnewswire.com/prnh/20131203/AQ26400>])

"Supermicro is pleased to contribute our energy efficient server designs and technology expertise to green supercomputing projects around the world," said Charles Liang, President and CEO of Supermicro. "The #1 Green500 ranked TSUBAME-KFC highlights the effectiveness of our 1U four GPU SuperServer to maximize compute density and performance per watt, per square foot. Collaborative efforts within the supercomputing industry will have lasting impact for future generations. Recognition by the Green500 gives us incentive to further innovate with higher energy efficiency supercomputing solutions to lower our customers' TCO and protect our Mother Earth."

Supermicro celebrates a #1 ranking on the Green500 most energy efficient supercomputers list with NEC Japan, NVIDIA, Tokyo Institute of Technology (TITECH) GSIC, and Green Revolution Cooling. TSUBAME-KFC developed by Professor Satoshi Matsuoka and TITECH is an ultra-green supercomputer employing the latest high-performance energy efficient server technologies designed to achieve a world record breaking performance/power efficiency of 4.5 GFLOPS per watt.

Supermicro 1U GPU SuperServer® (SYS-1027GR-TQF [<http://www.supermicro.com/products/system/1u/1027/sys-1027gr-tqf.cfm>]) Configuration

- 2x Intel® Xeon® Processor E5-2620 v2
- 4x NVIDIA® Tesla® K20X GPU Accelerators
- 64GB DDR3-1600 SDRAM
- 120GB SSD
- FDR (56Gbps) InfiniBand

"With energy conservation a growing concern globally and in particular for the nation of Japan, our primary objective when designing high-performance computing solutions was to minimize power consumption without sacrificing performance," said Kazuaki Iwamoto, General Manager, IT Platform Division, NEC. "TSUBAME-KFC brings together leading-edge technologies to achieve that goal with high-performance GPU accelerators from NVIDIA, high-density, energy-efficient server platforms from Supermicro and the most innovative cooling and environment-friendly energy saving rack solution from Green Revolution Cooling. With the #1 ranking from Green500 we're proving that supercomputing is more than delivering raw performance, it is also the art of maximizing space and power utilization."

"We are honored to receive the #1 ranking for most energy efficient supercomputer on the Green500 and excited for the future results that can be achieved with the TSUBAME-KFC," said Satoshi Matsuoka, Professor and Principle Investigator for Tokyo Institute of Technology. "The success of this project is thanks to passionate collaboration between NEC, NVIDIA, Supermicro and Green Revolution Computing. Together, we are showcasing the possibilities for the future of green

supercomputing as we drive onwards to our next generation Big Data and National Exascale projects."

"TSUBAME-KFC highlights the true capability of our CarnotJet(TM) liquid-submersion solution to dramatically reduce cooling energy consumption in HPC installations," said Christiaan Best, CEO and Founder of Green Revolution Cooling. "Ranking #1 on the Green500, in close company with the world's top supercomputing installations, is a testament to the levels of performance, expertise and precision brought together by NEC and all of our partners on this project. We've had a collaborative relationship with Supermicro for a long time now, and look forward to delivering even more efficient supercomputing solutions with their upcoming innovative server technologies in the near future."

"The 14th edition of the Green500 List marks a number of 'firsts', all of which involved TSUBAME-KFC," said Wu Feng of the Green500. "First and foremost, TSUBAME-KFC is the first supercomputer to have broken through the 4 gigaflops/watt barrier. Second, TSUBAME-KFC led the charge of heterogeneous computing systems in occupying all 10 of the top spots of the Green500. Third, relative to the previous edition of the list, the average power consumed by measured systems on the Green500 actually dropped for the first time in the history of the list, thus improving the greenness of the Green500 even further. Heterogeneous systems like TSUBAME-KFC are contributing to this increasing greenness."

Supermicro TSUBAME-KFC information - <http://www.supermicro.com/products/nfo/Green500.cfm>

[\[http://www.supermicro.com/products/nfo/Green500.cfm\]](http://www.supermicro.com/products/nfo/Green500.cfm)

Supermicro GPU-optimized Supercomputing Solutions - <http://www.supermicro.com/GPU> [\[http://www.supermicro.com/GPU\]](http://www.supermicro.com/GPU)

TSUBAME-KFC #1 Green500 Ranking - <http://www.green500.org/lists/green201311>

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Supermicro®, the leading innovator in high-performance, high-efficiency server technology is a premier provider of advanced server Building Block Solutions® for Data Center, Cloud Computing, Enterprise IT, Hadoop/Big Data, HPC and Embedded Systems worldwide. Supermicro is committed to protecting the environment through its "We Keep IT Green®" initiative and provides customers with the most energy-efficient, environmentally-friendly solutions available on the market.

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