

Toshiba's TSV Technology Wins Best of Flash Memory Summit Award

IRVINE, Calif., Aug. 25, 2015 /PRNewswire/ -- <u>Toshiba America Electronic Components</u>, <u>Inc.</u> (TAEC)*, a committed leader that collaborates with technology companies to create breakthrough designs, today announced that its Through Silicon Via (TSV) technology has earned a <u>'Best of Flash Memory Summit (FMS) 2015' award</u> from Tom's Hardware. A leading tech industry publication, Tom's Hardware acknowledged standout products that were announced at FMS earlier this month.

Toshiba has developed the world's first" 16-die stacked NAND flash memory that uses TSV technology. This new breakthrough provides an effective solution for low latency, high bandwidth and high IOPS/Watt in flash storage applications, including high-end enterprise SSDs. Toshiba's TSV technology achieves an I/O data rate of over 1Gbps, which is higher than any other NAND flash memory, while reducing power consumption by approximately 50 percent with low voltage supply."

"TSV technology is another NAND industry first for Toshiba, and we are very excited about the increases in performance and reductions in power consumption it can bring to high density applications, such as SSDs," noted Scott Nelson, senior vice president of TAEC's Memory Business Unit. "Having our technology recognized by a premier outlet such as Tom's Hardware is further validation of our NAND flash leadership role."

Also included among the highlights at Toshiba's booth at FMS was the next generation of its <u>BiCS FLASH</u>TM. This innovative technology is the world's first³ 48-layer TLC 3-bit-per-cell 256Gb³ (32GB) 3D memory.

For more information on Toshiba's TSV technology and other flash memory solutions, please visit <u>toshiba.com/taec/adinfo/technologymoves/</u> and follow the company on Facebook.

Notes

- *1: As of August 6, 2015. Toshiba survey.
- *2: As of August 6, 2015. Compared with Toshiba's current products. Maximum read and write speed may vary depending on the host device, read and write conditions, and file size. *3: As of August 3, 2015. Toshiba survey.
- *4: Product density is identified based on the density of memory chip(s) within the Product, not the amount of memory capacity available for data storage by the end user. Consumerusable capacity will be less due to overhead data areas, formatting, bad blocks, and other

constraints, and may also vary based on the host device and application. For details, please refer to applicable product specifications.

BiCS FLASH is a trademark of Toshiba Corporation

*About Toshiba Corp. and TAEC About TAEC

Through proven commitment, lasting relationships and advanced, reliable electronic components, Toshiba enables its customers to create market-leading designs. Toshiba is the heartbeat within product breakthroughs from OEMs, ODMs, CMs, VARs, distributors and fabless chip companies worldwide. A committed electronic components leader, Toshiba designs and manufactures high-quality flash memory-based storage solutions, solid state drives (SSDs), hard disk drives (HDDs), solid state hybrid drives (SSHDs), discrete devices, custom SoCs/ASICs, imaging products, microcontrollers, wireless components, mobile peripheral devices, advanced materials and medical tubes that make possible today's leading smartphones, tablets, cameras, medical devices, automotive electronics, industrial applications, enterprise solutions and more.

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MEDIA CONTACT:

Dena Jacobson Lages & Associates Tel.: (949) 453-8080 dena@lages.com

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