FutureHorizons

The Global Semiconductor Industry Analysts

FH MONDAY

13 March 2017

ARM Servers 'Compelling' for Microsoft

Microsoft is testing ARM server SoCs from Cavium, Qualcomm and at least one other supplier, boosting their hopes of cutting into the lucrative dominance of Intel's x86 in servers.

read more

Startup Taps TSMC to Attack B'com

One of a handful of startups aiming to attack Broadcom's dominance in Ethernet switching emerges from stealth mode this week. Nephos spun out of Taiwan's Mediatek and will push packaging technology from TSMC to a new level.

read more

AMD Describes Zen for Servers

Advanced Micro Devices will announce the first server processor based on its Zen x86 core at the Open Compute Project event here this week. AMD's Naples, available by June, packs more cores, memory, and I/O than Intel's Broadwell, beating it in seismic analysis benchmarks.

read more

FutureHorizons

TALK TO US

Industrial Li-ion battery charges in 20 minutes

Toshiba's latest addition to its SCiB line-up of lithium-ion rechargeable batteries, the SIP modules, target automated guided vehicles (AGV) and other types of industrial equipment.
As tools for supporting work flows, the availability and reliability of AGV—or mobile robots—are key concerns

read more

EVENTS

Silicon Chip Industry Seminar

– 13 March 2017 – London UK

Industry Forecast Briefing

– 19 September 2017 – London UK

DON'T MISS OUT.-
BOOK NOW BY CALLING

+44 1732 740440

OR EMAIL

mail@futurehorizons.com

3D-printed metamaterial bends sound waves

Researchers from the universities of Sussex and Bristol have developed a new material that bends, shapes and focuses sound waves that pass through it.The so-called "super-material" is the latest addition to metamaterials—a new class of finely-engineered surfaces that can be used to manipulate our physical reality.

read more

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England
Tel: +44 1732 740440 • Fax: +44 1732 740442
e-mail: mail@futurehorizons.com• http://www.futurehorizons.com/
Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

ARM Servers ‘Compelling’ For Microsoft

Microsoft is testing ARM server SoCs from Cavium, Qualcomm and at least one other supplier, boosting their hopes of cutting into the lucrative dominance of Intel’s x86 in servers.

The data center giant made the announcement at the annual gathering of the Open Compute Project (OCP) here, where Facebook unveiled a refreshed line of servers. Both Facebook and Microsoft announced accelerator systems using NVLink to connect eight Nvidia’s Pascal chips.

Separately, IBM showed the first boards using its Power 9 processor. They were supported by new Xilinx FPGAs and 100 Gbit/second Ethernet switches from Mellanox all riding the new PCI Express Gen 4 link that Power 9 is the first CPU to support

Startup Taps TSMC to Attack B’com

One of a handful of startups aiming to attack Broadcom’s dominance in Ethernet switching emerges from stealth mode this week. Nephos spun out of Taiwan’s Mediatek and will push packaging technology from TSMC to a new level.

Broadcom held a whopping 94.5% share of the $687 million market for merchant 10–40-Gbit/second Ethernet switch chips in 2015, according to Linley Group analyst Bob Wheeler. Nephos is the latest of three startups to emerge seeking a slice of that pie and one most likely to provide a mainstream alternative, he said.

Nephos — Greek for cloud — emerges at the annual Open Compute Project event this week. Facebook started OCP to drive open-source hardware standards for the needs of its sprawling and cost-sensitive data centers, an initiative that Microsoft and Google have since joined.

AMD Describes Zen for Servers

SAN JOSE, Calif. — Advanced Micro Devices will announce the first server processor based on its Zen x86 core at the Open Compute Project event here this week. AMD’s Naples, available by June, packs more cores, memory, and I/O than Intel’s Broadwell, beating it in seismic analysis benchmarks.

The news comes as AMD starts sales of Zen-based desktop chips. Initial reports from people testing the chips showed results that were less flattering than original benchmarks that AMD revealed last month.

A Naples processor packs 32 dual-threaded cores, eight memory channels running up to 2,400 MHz, and 128 lanes of PCI Express Gen 3. AMD showed it finishing seismic analysis tests faster than Intel Broadwell chips, even when the AMD-based systems were throttled back to the slower memory speeds and fewer cores on Broadwell.

Industrial Li-Ion Battery Charges In 20 Minutes

Toshiba's latest addition to its SCiB line-up of lithium-ion rechargeable batteries, the SIP modules, target automated guided vehicles (AGV) and other types of industrial equipment.

As tools for supporting work flows, the availability and reliability of AGV—or mobile robots—are key concerns. However, typical AGV use lead batteries that suffer from long charge times and short lifecycles.

Toshiba's SIP modules integrate a battery management unit that manages voltage and internal temperature, facilitating easy replacement of lead storage batteries. Typical, widely used lead batteries have a charge time of 8 to 10 hours, but SIP series modules charge in 20 minutes, according to the company. Lead batteries have a short life, and need to be replaced in roughly two-year cycles, but Toshiba said its SIP series maintains over 80% battery capacity for about 10 years of use.

3D-Printed Metamaterial Bends Sound Waves

Researchers from the universities of Sussex and Bristol have developed a new material that bends, shapes and focuses sound waves that pass through it.

The so-called "super-material" is the latest addition to metamaterials—a new class of finely-engineered surfaces that can be used to manipulate our physical reality. These materials have already shown remarkable results with light manipulation, allowing scientists to create a real-life version of an invisibility cloak that captures lightwaves, for example.

This time, the Sussex and Bristol team have shown that metamaterials also work with sound waves, which could transform medical imaging and personal audio.