FutureHorizons

The Global Semiconductor Industry Analysts

FH MONDAY

6 February 2023

ChatGPT runs 10K Nvidia training Wolfspeed, ZF plan world's Infineon Expands GPUs with potential for thousands largest SiC production line Partnership with Resonac more Semiconductor manufacturer Infineon Technologies AG has Artificial intelligence is already Wolfspeed plans to build the extended its cooperation with providing business world's largest fab for SiC Resonac Corp. (formerly opportunities for GPU components in Germany. The Showa Denko K.K.) by signing chipmakers, mainly Nvidia, automotive supplier ZF a new multi-year-supply and but AMD, Intel and Google are Friedrichshafen is also on cooperation agreement on releasing new hardware and board.Reports about the silicon carbide (SiC) material software as well to support project appeared in several supply. deep learning workloads. media in Germany, among them the business newspaper Handelsblatt. read more read more read more FutureHorizons TALK TO US Intel kills its RISC-V Pathfinder development kit programme Apple set to drive microLED revolution, says Yole **EVENTS** Silicon Chip Industry Intel has discontinued its A revolution in displays could recent programme that begin to happen as soon as Seminar brought together a wide range 2024, courtesy of Apple's -March 2023– London UK of RISC-V technologies. adoption of microLED The Pathfinder programme technology, although the Industry Forecast Briefing includes FPGA boards and IP aggressive timing comes with from Europe as well as a risks, according to Yole - January 2023- London UK range of tools for verification Group. DON'T MISS OUT.and development. BOOK NOW BY CALLING +44 1732 740440 read more read more OR EMAIL mail@futuraharizana aam

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

Infineon Expands Partnership with Resonac on SiC Material Supply

Infineon Technologies AG has extended its cooperation with Resonac Corp. (formerly Showa Denko K.K.) by signing a new multi-year-supply and cooperation agreement on silicon carbide (SiC) material supply.

According to the agreement, Resonac will supply Infineon with SiC materials for the production of SiC semiconductors, covering a double-digit share of the forecasted demand for the next decade.

While the initial phase focuses on 6" SiC material supply, Resonac will also support Infineon's transition to 8" waferdiameter during the later years of the agreement. As part of the cooperation, Infineon will provide Resonac with intellectual property relating to SiC material technologies. The Infineon-Resonac partnership contributes to supply chain stability and will support the rapid growth of the emerging semiconductor material SiC.

ChatGPT runs 10K Nvidia training GPUs with potential for thousands more

Artificial intelligence is already providing business opportunities for GPU chipmakers, mainly Nvidia, but AMD, Intel and Google are releasing new hardware and software as well to support deep learning workloads.

The deep learning field will inevitably get even bigger and more profitable for such players, according to analysts, largely due to chatbots and the influence they will have in coming years in the enterprise. Nvidia is viewed as sitting pretty, potentially helping it overcome recent slowdowns in the gaming market.

The most popular deep learning workload of late is ChatGPT, in beta from Open.AI, which was trained on Nvidia GPUs. According to UBS analyst Timothy Arcuri, ChatGPT used 10,000 Nvidia GPUs to train the model.

Wolfspeed, ZF Plan World's Largest Sic Production Line

Semiconductor manufacturer Wolfspeed plans to build the world's largest fab for SiC components in Germany. The automotive supplier ZF Friedrichshafen is also on board.

Reports about the project appeared in several media in Germany, among them the business newspaper Handelsblatt. According to the reports, production is to begin in four years, but at the moment, the negotiations about the essential funding from the public sector are not yet concluded. Such finding is usual for such projects; typically it lies in the the order of 40%, the report says. ZF will participate in the production with a minority share of an undisclosed amount.

According to the report, the projected plant will be larger than Wolfspeed's latest and most expensive SiC fab in the USA which cost about \$2 billion.

Intel kills its RISC-V Pathfinder development kit programme

Intel has discontinued its recent programme that brought together a wide range of RISC-V technologies.

The Pathfinder programme includes FPGA boards and IP from Europe as well as a range of tools for verification and development.

"We regret to inform you that Intel is discontinuing the Intel Pathfinder for RISC-V program effective immediately," said the company. "Since Intel will not be providing any additional releases or bug fixes, we encourage you to promptly transition to third-party RISC-V software tools that best meet development needs.

Apple Set To Drive Microled Revolution, Says Yole

A revolution in displays could begin to happen as soon as 2024, courtesy of Apple's adoption of microLED technology, although the aggressive timing comes with risks, according to Yole Group.

The market analysis firm reports that Apple and its partners, including AMS-Osram, setting up the supply chain to start producing smart watch display in 2024 (see AMS-Osram ready to ramp microLED production in 2024).

Apple's move is likely to fire a starting gun on a race to larger display sizes. Yole estimates that as of November 2022, display makers, OEMs, startups and production equipment makers have spent US\$8 billion on microLED development. Of that about US\$1.7 billion was spent acquiring microLED startups."