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Fujitsu Gambles to Replace DRAM

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Is 28nm the end of Moore's Law's 50-year march

As we have predicted more than two years back, the industry is bifurcating, and just a few products pursue scaling to 7nm while the majority of designs stay on 28nm or older nodes.

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SDR platform supports any wireless standard

Successfully funded on Crowd Supply, LimeSDR is a low cost application-enabled software defined radio (SDR) platform that can be programmed to support virtually any type of wireless standard, from Wi-Fi, ZigBee and Bluetooth through to cellular standards such as UMTS, LTE and GSM and to the emerging IoT communication protocols such as LoRa.

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TALK TO US



DragonFly 2020 system flies to first customer

Nano Dimension Technologies has shipped the first DragonFly 2020 system designated for 3D circuitry and PCBs, marking a major milestone for the company. The supply was made to an Israeli defence company for evaluation purposes and is expected to be installed at the partner's site in the coming days, according to the company.

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TSMC, Renesas Partner in 28nm for Robotic Cars

Taiwan Semiconductor Manufacturing Co. (TSMC) and Renesas Electronics have announced their alliance on 28nm embedded flash process technology for MCUs targeted at autonomous vehicles.

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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

Fujitsu Gambles To Replace DRAM With NRAM Using Carbon Nanotubes

Fujitsu Semiconductor Limited and Mie Fujitsu Semiconductor Limited have signed an agreement to license NRAM non-volatile RAM using carbon nanotubes from Nantero Inc.

The goal is to develop a product using NRAM non-volatile RAM that achieves several thousand times faster rewrites and many thousands of more rewrite cycles than embedded flash memory, which could potentially replace DRAM with non-volatile memory in embedded semiconductor designs.

Fujitsu Semiconductor plans to develop an NRAM-embedded custom LSI product by the end of 2018 with the goal of expanding the product lineup into a stand-alone NRAM product after that. Pure-play foundry Mie Fujitsu Semiconductor will develop NRAM-based technology for its foundry customers using a 55 nm process technology.

Is 28nm The End Of Moore's Law's 50-Year March?

As we have predicted more than two years back, the industry is bifurcating, and just a few products pursue scaling to 7nm while the majority of designs stay on 28nm or older nodes.

Our 2014 blog, "28nm—The Last Node of Moore's Law," has now been confirmed. At the time we wrote: "After the 28nm node, we can continue to make transistors smaller, but not cheaper." It is illustrated in the following slide, presented by Samsung at the recent Semicon West 2016.

Intel did announce that going forward, the time between nodes will increase but it still claims it can keep reducing transistors cost. Yet Intel's underwhelming successes as a foundry suggest otherwise. We have discussed it in a blog titled, "Intel—The Litmus Test," and it was essentially repeated in Apple will NEVER use Intel Custom Foundry! "Yes, Intel will argue that their 10nm and 7nm are better than the foundries (TSMC and Samsung) but that will have to be proven at the chip level which is based on PPAC (power, performance, area, AND cost). The foundries have beaten Intel at every node based on SoC PPAC and I do not expect that to change at 10nm or 7nm."

SDR Platform Supports Any Wireless Standard

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Lime Micro has announced a manufacturing partnership for the LimeSDR product line with Taiwan's Advanced Semiconductor Engineering, a provider of semiconductor packaging and testing services. As part of the agreement, all the LimeSDR boards pledged during the recent successful crowdfunding campaign and any boards bought up before the end of September 2016, will have a customised 'I backed LimeSDR on Crowd Supply' logo on the recently released LMS7002M Lime chip.

Dragonfly 2020 System Flies To First Customer

Nano Dimension Technologies has shipped the first DragonFly 2020 system designated for 3D circuitry and PCBs, marking a major milestone for the company.

The supply was made to an Israeli defence company for evaluation purposes and is expected to be installed at the partner's site in the coming days, according to the company.

Nano Dimension has already proven its capabilities of printing multilayer electric circuits in lab conditions, but this is the first time that the DragonFly 2020 system is being tested at a different location, which, according to the company, is the first key step towards the potential commercialization of Nano Dimension's products.

TSMC, Renesas Partner In 28nm For Robotic Cars

Taiwan Semiconductor Manufacturing Co. (TSMC) and Renesas Electronics have announced their alliance on 28nm embedded flash process technology for MCUs targeted at autonomous vehicles.

Samples of the automotive MCUs adopting the 28nm process will ship next year, and mass production will start in 2020, the companies said in a press statement.

The companies first partnered in MCUs with on-chip flash memory at the 90nm node. Four years after developing 40nm MCUs, the partners are extending their work to develop 28nm MCUs that make electric-powered and robotic vehicles more efficient and reliable.