

# FutureHorizons



The Global Semiconductor Industry Analysts

## FH MONDAY

15 November 2021

### NeuReality Licenses IBM's Low-Precision AI Cores

Israeli AI accelerator company NeuReality has become the first semiconductor startup to license IBM Research's low-precision high-performance digital AI cores. As part of the partnership, NeuReality will become a member of the IBM Research AI Hardware Center.

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### Apple Shines Despite Supply Constraints

Apple's sales hit a record even as overall smartphone shipments fell during the third quarter of this year amid supply shortages. Apple CEO Tim Cook said robust demand fueled record sales totaling \$83.4 billion during the iPhone maker's most recent financial quarter.

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### Japan's Toshiba to Split Business into Three

Toshiba plans to split into three companies as early as 2023, aiming to make the performance and growth strategy of each sector clearer.

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## TALK TO US



### Tessolve Joins GlobalFoundries' Design Enablement Network Program

Tessolve, one of the leading providers of semiconductor engineering solutions, has joined the GlobalFoundries (GF) Design Enablement Network Program as a design partner. Tessolve will provide design implementation services all the way through post-silicon productization.

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## EVENTS

### [Silicon Chip Industry Seminar](#)

-November 2021- London UK

### [Industry Forecast Briefing](#)

- January 2022- London UK

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### JEDEC Advances Small, Changeable Flash Standard

The ability to hot swap storage media from servers or consumer electronics is taken for granted. A new standard is aimed making it easier to change out flash memory that's typically been soldered into connected devices and embedded applications.

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## **NeuReality Licenses IBM's Low-Precision AI Cores**

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IBM's AI Hardware Center was established in 2019 to support the company's target of increasing AI computing performance by a factor of 2.5 per year, with an ambitious overall goal of 1,000-fold performance efficiency (Flops/W) improvement by 2029. IBM has created an ecosystem of commercial and academic partners to help meet those targets.

## **Apple Shines Despite Supply Constraints**

Apple's sales hit a record even as overall smartphone shipments fell during the third quarter of this year amid supply shortages.

Apple CEO Tim Cook said robust demand fueled record sales totaling \$83.4 billion during the iPhone maker's most recent financial quarter. Revenue soared 29 percent from the same period a year ago despite worsening supply

"We estimate these constraints had around a \$6 billion revenue impact, driven primarily by industry-wide silicon shortages and Covid-related manufacturing disruptions," Cook said on a quarterly-results conference call. "It affected the iPhone, the iPad and the Mac. It is affecting pretty much most of our products currently."

## **Japan's Toshiba to Split Business into Three**

Toshiba plans to split into three companies as early as 2023, aiming to make the performance and growth strategy of each sector clearer, the Nikkei business daily reported Tuesday.

The Japanese firm confirmed to AFP that the option of splitting its business up was under consideration but said nothing had been decided yet.

The Nikkei daily reported, without citing its sources, that Toshiba plans to split into three firms focused on infrastructure, devices and semiconductor memory.

## **Tessolve Joins GlobalFoundries' Design Enablement Network Program**

Tessolve, one of the leading providers of semiconductor engineering solutions, has joined the GlobalFoundries (GF) Design Enablement Network Program as a design partner. Tessolve will provide design implementation services all the way through post-silicon productization.

The strategic partnership with GF aims to bring state-of-the-art design solutions across multiple end markets including automotive, industrial, server, graphics and mobile platforms. As part of this partnership, Tessolve will collaborate with GF to design and develop silicon solutions including Application Specific Integrated Circuits (ASICs), System-on-Chip (SoCs) solutions and test chips, etc.

GF's design enablement team ensures access to PDKs and IP to support the selection of the appropriate technology early in the product design cycle. This will allow Tessolve to help customers productize their ideas quickly, accelerate the design cycle, speed up their development on advanced processes, thereby ensuring customers are meeting their ever-tightening time-to-market goals. This partnership is a great advantage our customers can leverage as the one-stop solution for advanced design needs.

## **JEDEC Advances Small, Changeable Flash Standard**

The ability to hot swap storage media from servers or consumer electronics is taken for granted. A new standard is aimed making it easier to change out flash memory that's typically been soldered into connected devices and embedded applications.

The JEDEC Solid State Technology Association has released its first iteration of the Crossover Flash Memory (XFM) Embedded and Removable Memory Device (XFMD) standard. The spec outlines a new universal data storage media providing an interface between NVM Express (NVMe) and PCI Express (PCIe) in a small, thin form factor.

As it becomes commonplace to switch out SSDs from servers rather than replacing an entire rack, XFMD is designed as a replaceable storage medium for devices that are typically soldered and meant to stay put for the lifespan of the device in which they are embedded.