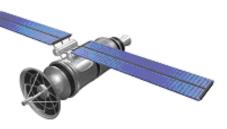
# FutureHorizons



## The Global Semiconductor Industry Analysts

### **FH MONDAY**

18 September 2017

Toshiba Plans Next Memory Fab

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3-D Printing Fast-Tracks
Circuit Prototyping

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TSMC reported progress in 7 nm and extreme ultraviolet (EUV) lithography and bolstered a planar process that competes with fully depleted silicon-on-insulator at an annual event here. It also gave updates on its work in packaging and platforms for key market segments.

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## **Future**Horizons

#### TALK TO US







Dawn of the \$1,000 Smartphone Era

While nearly all consumer electronics goods decline in price over time and most of the smartphone industry is scraping by on razor-thin margins, Apple and rival Samsung are upping the ante with flagship handsets that cost \$1,000 and up.

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- 13 November 2017 - London

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- 19 September 2017 - London UK

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NXP Tackles V2X, Unveils 'Vision' Roadmap

NXP Semiconductors is at the Frankfurt Motor Show this week to unveil the company's new single-chip DSRC (Dedicated Short Range Communications) modem for vehicle-to-everything (V2X) communication and NXP's partnership agreement with Germany's Hella Aglaia to create a "scalable, functionally safe, Already" open vision platform.

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#### **Toshiba Plans Next Memory Fab**

SAN FRANCISCO — Even as the semiconductor world tries to follow the twists and turns in the ongoing saga over the fate of its chip unit, Toshiba Corp. is planning to break ground on a new NAND flash memory fab in Japan next year.

Toshiba said this week that Toshiba Memory Corp. (TMC), its wholly owned subsidiary, has selected Kitakami City in Japan's Iwate prefecture as the site of its next NAND fab. Though the exact construction schedule has not been determined, Toshiba said it plans to break ground on the facility in 2018.

#### 3-D Printing Fast-Tracks Circuit Prototyping

LAKE WALES, Fla. — Circuit prototyping traditionally requires tedious layouts using CAD tools, transfer of those plans to a printed-circuit board maker, precise placement of components on the pc board using pick-and-place robots, and then a wave soldering step to establish electrical contact between the components and the board. Prototyping engineers wait weeks before they can test the circuit board, find its flaws, and repeat the process until they get it right.

The Charles Stark Draper Laboratory Inc. (Cambridge, Mass.) has reported on an approach for 3-D printing of circuits that it says can slash the wait time from weeks to days. The components are glued down to a substrate with no traces and then are interconnected in real time with conductive ink in the 3-D printer.

#### **TSMC Updates Its Silicon Menu**

SANTA CLARA, Calif. — TSMC reported progress in 7 nm and extreme ultraviolet (EUV) lithography and bolstered a planar process that competes with fully depleted silicon-on-insulator at an annual event here. It also gave updates on its work in packaging and platforms for key market segments.

The foundry, celebrating its 30th anniversary, expects to tape out more than 10 7-nm chips this year and start volume production with the process next year. The chips include a quad ARM A72 core processor running at up to 4 GHz — possibly Huawei's Kiron mobile processor — a CCIX development platform, and an unnamed ARM server processor.

#### Dawn of the \$1,000 Smartphone Era

While nearly all consumer electronics goods decline in price over time and most of the smartphone industry is scraping by on razor-thin margins, Apple and rival Samsung are upping the ante with flagship handsets that cost \$1,000 and up.

Apple's introduction of a smartphone with a \$1,000 had been widely predicted. Even so, it's still a bit of a bombshell.

While prices for nearly all consumer electronics goods are in constant decline and while the vast majority of smartphone vendors scrap by on razor thin margins, Apple and rival Samsung — which together account for nearly all smartphone profits — are upping the ante.

Why? Because they can.

#### NXP Tackles V2X, Unveils 'Vision' Roadmap

NXP Semiconductors is at the Frankfurt Motor Show this week to unveil the company's new single-chip DSRC (Dedicated Short Range Communications) modem for vehicle-to-everything (V2X) communication and NXP's partnership agreement with Germany's Hella Aglaia to create a "scalable, functionally safe, Al-ready" open vision platform.

For a huge automotive chip company that has avoided the spotlight throughout the current robo-car trend, these moves are a coming-out party. They reveal certain strategic directions for NXP's V2X and ADAS/Autonomous vision processors.

- 1. NXP is now offering a new V2X solution supporting DSRC/802.11p that can also be integrated with cellular-V2X in a single telematics control unit.
- 2. NXP has finally selected a significant partner, Hella Aglaia, for its automotive vision processors. Aglaia's camera-based vision software will be ported to NXP's S32 and i.MX auto-grade processors.
- 3. NXP has pre-announced the company's next-generation vision processor, which it says will launch in 2018. This is the first time NXP has specifically discussed its plan to support AI for "more complex automated driving functions such as pixel-wise classification, semantic path finding and vehicle localization functions."