# FutureHorizons



## The Global Semiconductor Industry Analysts

### **FH MONDAY**

28 January 2019

Qualcomm Outlines
Autonomous Roadmap

LAS VEGAS — Qualcomm came to the Consumer Electronics Show with one clear message: The cellular phone chip giant is ready to rumble in the high-stakes battle of highly automated vehicles.

Novel DRAM Tapped for Edge AI

LAS VEGAS — Over the last few decades, the DRAM industry has single-mindedly followed a single roadmap in pursuit of higher-density memories, beginning with asynchronous DRAM and evolving to DDR5 synchronous DRAM.

Tejas Sets Up Telecom Center in Kerala; Proposes a 5G Lab

Bengaluru: It is no surprise that Tejas Networks, one of India's most successful homegrown telecom equipment and infrastructure companies is setting up a new telecom center in the southern state of Kerala, for working on next-generation telecom technologies.

read more

read more

read more

## **Future**Horizons









## Location Finds Bluetooth, UWB

An update of the Bluetooth specification released today enables location services accurate to within 10 centimeters thanks to a new direction-finding capability. It arrives as a separate draft standard is nearly ready for an even faster and more accurate capability using ultra-wideband (UWB) radio, geared for use in smartphones.

read more

#### **EVENTS**

Silicon Chip Industry Seminar

11 March 2019 - London UK

**Industry Forecast Briefing** 

- 17 Sept 2019 - London UK

DON'T MISS OUT.-BOOK NOW BY CALLING

+44 1732 740440

OR EMAIL

mail@futurehorizons.com

TSMC's Outlook Underscores Foundry Market Challenges

TSMC's announcement last week that it expects its quarterly sales to decline precipitously quarter to quarter put the chip foundry market on notice as it begins what is expected to be a challenging year.

read more

#### **Qualcomm Outlines Autonomous Roadmap**

Qualcomm came to the Consumer Electronics Show with one clear message: The cellular phone chip giant is ready to rumble in the high-stakes battle of highly automated vehicles.

Qualcomm came to the Consumer Electronics Show with one clear message: The cellular phone chip giant is ready to rumble in the high-stakes battle of highly automated vehicles.

At CES, Qualcomm was prepared to sneak — but only for a selected audience — a peek at what its "stealth AV program" entails. Of course, once a company starts talking about a "stealth program," it's not exactly stealthy anymore, is it?

Obviously, what was said in Vegas will not stay in Vegas

#### **Novel DRAM Tapped For Edge Al**

LAS VEGAS — Over the last few decades, the DRAM industry has single-mindedly followed a single roadmap in pursuit of higher-density memories, beginning with asynchronous DRAM and evolving to DDR5 synchronous DRAM.

In contrast, Etron Technology (Hsinchu, Taiwan) revealed at the Consumer Electronics Show that instead of following the conventional path, it's charting an alternative roadmap with a brand-new DRAM architecture called "Reduced Pin Count" (RPC) DRAM.

Etron CEO Nicky Lu argued that the proposed RPC DRAM, which uses only half the pins, can both drive miniaturization and cut cost. He pitched PRC DRAM as ideal for miniaturized wearable devices and end-point Al subsystems. With DDR4, many companies designing small wearable devices today must buy more than they need, Lu added. "For many designers of small systems, DDR4 is an overkill

#### Tejas Sets Up Telecom Center In Kerala; Proposes A 5G Lab

Bengaluru: It is no surprise that Tejas Networks, one of India's most successful home-grown telecom equipment and infrastructure companies is setting up a new telecom center in the southern state of Kerala, for working on next-generation telecom technologies.

The center of excellence (CoE) is being set up in partnership with the Kerala state government in the new Integrated Start-up complex in Kochi.

Incidentally, in the same city of Kochi is the Maker Village, the country's largest hardware incubator. This electronics incubator is a joint initiative between, Ministry of Electronics and Information Technology(MeitY) and Indian Institute of Information Technology and Management, Kerala (IIITM-K), the nodal agency of the project, Kerala Startup Mission and the Kerala government.

#### **Location Finds Bluetooth, UWB**

SAN JOSE, Calif — An update of the Bluetooth specification released today enables location services accurate to within 10 centimeters thanks to a new direction-finding capability. It arrives as a separate draft standard is nearly ready for an even faster and more accurate capability using ultra-wideband (UWB) radio, geared for use in smartphones.

Bluetooth 5.1 describes ways to determine location using multiple antennas at either the transmitter or receiver. It uses measures of signal phase and amplitude to measure location, though profiles for application developers are still being finished.

In mid-March, the IEEE 802.15.4z standard for UWB should be in a stable draft form, opening the door for silicon designs. It enables location measures within a single centimeter and resolves in a nanosecond, a rate faster than Bluetooth.

#### TSMC's Outlook Underscores Foundry Market Challenges

SAN FRANCISCO — TSMC's announcement last week that it expects its quarterly sales to decline precipitously quarter to quarter put the chip foundry market on notice as it begins what is expected to be a challenging year.

TSMC (Hsinchu, Taiwan) said that it expects sales to decline nearly 14% quarter to quarter to between \$7.3 billion and \$7.4 billion. It would be the largest quarter-to-quarter sales decline for the world's leading foundry since 2009.

The expected shortfall has been largely blamed in weaker-than-expected sales of Apple's newest iPhones, which features Apple-designed processors built by TSMC.