

# FutureHorizons

The Global Semiconductor Industry Analysts



## FH MONDAY

9 May 2022

### Applied Materials Sets Its Sights on EUV and 3D GAA

Designed to address the limitations of Moore's law 2D scaling, Applied Materials' latest portfolio of 3D gate-all-around (GAA) transistor technologies and extreme ultraviolet (EUV) lithography solutions aims to provide improved power, performance, area, cost, and time to market — otherwise known as PPA<sub>CT</sub> — for chipmakers eager to extend 2D scaling with EUV.

[read more](#)

### The Role Of mmWave In Eliminating Challenges of Real-World 5G

Expectations from 5G are huge. However, a major challenge facing 5G deployment is that the available sub-6-GHz spectrum does not support the latency and throughput needed to deliver the optimal performance required by advanced applications and simultaneous users.

[read more](#)

### Streetlights Offer Path to Rapid mmWave 5G

On my daily walks, I often look up at the streetlights and think about the potential they hold for deploying many different technology solutions, whether for environmental monitoring, surveillance, or for enhancing network infrastructure. So it was no surprise to see this week's announcement from Movandi and Ubiqvia of their partnership to develop and deploy mmWave streetlight .....

[read more](#)

FutureHorizons



## TALK TO US



### April car sales weighed down by chips shortage

The shortage of semiconductor, Russia-Ukraine war, vehicle price hike, fuel price rise and other supply chain issues continue to weigh on buyer sentiment across the passenger vehicle market in India. In terms of pure numbers, the low base effect has kicked in and most OEMs are in the green compared to the marginal sales seen last April as the country tackled the scourge of Covid-19.

[read more](#)

## EVENTS

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

-November 2021- London UK

### [Industry Forecast Briefing](#)

- September 2021- London UK

**DON'T MISS OUT.-  
BOOK NOW BY  
CALLING**

**+44 1732 740440**

**OR EMAIL**

[mail@futurehorizons.com](mailto:mail@futurehorizons.com)

### LG Electronics Predicted to Internalize Automotive Semiconductor Supply

The company has recently received ISO 26262 certification from TUV Rheinland, a German testing and certification organization, on its development process for electronic control units (ECUs), microcontroller units (MCUs) and power management ICs (PMICs).

[read more](#)

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England

Tel: +44 1732 740440 • Fax: +44 1732 740442

e-mail: [mail@futurehorizons.com](mailto:mail@futurehorizons.com) • <http://www.futurehorizons.com/>

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

## **Applied Materials Sets Its Sights on EUV and 3D GAA**

Designed to address the limitations of Moore's law 2D scaling, Applied Materials' latest portfolio of 3D gate-all-around (GAA) transistor technologies and extreme ultraviolet (EUV) lithography solutions aims to provide improved power, performance, area, cost, and time to market — otherwise known as PPACt — for chipmakers eager to extend 2D scaling with EUV.

In an EE Times Special Project, More than Moore, Nirmalya Maity, corporate vice president of Advanced Packaging at Applied Materials, explained that the need for innovations in the semiconductor industry continues to grow, especially as time to market for newer chip generations slows and costs increase.

Maity said in a blog post, "The internet of things, big data, and artificial intelligence are fueling a new wave of growth for the semiconductor industry. But while the need for chip innovation has never been greater, classic Moore's law 2D scaling is slowing. Chip shrinks are taking longer and costing more with each successive generation. This is prompting the need for new design and manufacturing paradigms as chipmakers and system companies seek to continue driving improvements

## **The Role Of mmWave In Eliminating Challenges of Real-World 5G**

Expectations from 5G are huge. However, a major challenge facing 5G deployment is that the available sub-6-GHz spectrum does not support the latency and throughput needed to deliver the optimal performance required by advanced applications and simultaneous users. While current sub-6-GHz 5G networks provide marginal improvements over existing 4G LTE networks, they fail to deliver on the promise of 5G coverage, performance, and latency in dense urban environments and crowded event venues. mmWave technology can help address this, but there are also challenges. This article looks at the key factors to consider in addressing these 5G deployment challenges.

Cellular technologies are always evolving to meet the growing data demands of the modern age. GSM led to 2G which allowed text messaging and basic data transfer. 3G allowed effective mobile internet browsing and 4G allowed users to stream video more reliably and enjoy stable VoIP calls.

## **Streetlights Offer Path to Rapid mmWave 5G**

On my daily walks, I often look up at the streetlights and think about the potential they hold for deploying many different technology solutions, whether for environmental monitoring, surveillance, or for enhancing network infrastructure. So it was no surprise to see this week's announcement from Movandi and Ubicquia of their partnership to develop and deploy mmWave streetlight repeaters to enhance 5G and fixed wireless access coverage. The mmWave smart repeater that plugs into a streetlight's photocell socket in minutes, and is said to be compatible with 360 million existing streetlights worldwide, (Source: Ubicquia)

Under the terms of their agreement, Ubicquia will use Movandi's technology to create an mmWave smart repeater that plugs into a streetlight's photocell socket in minutes — the system is said to be compatible with 360 million existing streetlights worldwide, to accelerate broad 5G mmWave coverage and FWA deployment. These would install in just minutes and lock onto host RAN signals automatically to ensure repeater-to-repeater connectivity without the need for fiber connectivity to the core network. The mmWave smart repeater also integrates with all major RAN/Open RAN technologies, including Ericsson, Huawei, Nokia, and Samsung, and supports all global mmWave spectrum bands.

## **April Car Sales Weighed Down By Chips Shortage**

The shortage of semiconductor, Russia-Ukraine war, vehicle price hike, fuel price rise and other supply chain issues continue to weigh on buyer sentiment across the passenger vehicle market in India. In terms of pure numbers, the low base effect has kicked in and most OEMs are in the green compared to the marginal sales seen last April as the country tackled the scourge of Covid-19.

India's leading car manufacturer, Maruti Suzuki India's domestic sales including UVs and vans fell to 121,995 units as against 135,879 units in April 2021, a fall of 10 percent. The company sold a total of 150,661 units in April 2022. Compared to last month also there is a significant decline. The April sales slipped nine percent from 133,861 units sold in March 2022.

## **LG Electronics Predicted to Internalize Automotive Semiconductor Supply**

LG Electronics has secured the ability to directly design and verify automotive semiconductors.

The company has recently received ISO 26262 certification from TUV Rheinland, a German testing and certification organization, on its development process for electronic control units (ECUs), microcontroller units (MCUs) and power management ICs (PMICs).