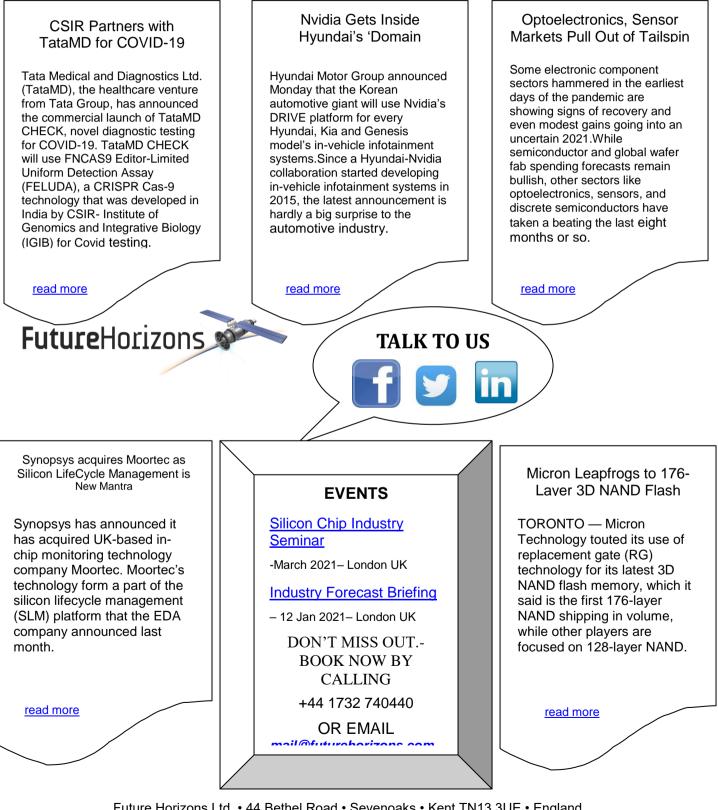
FutureHorizons

The Global Semiconductor Industry Analysts

FH MONDAY

16 November 2020



Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England Tel: +44 1732 740440 • Fax: +44 1732 740442 e-mail: <u>mail@futurehorizons.com</u>• <u>http://www.futurehorizons.com/</u> Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

CSIR Partners with TataMD for COVID-19 Diagnostic Testing

Tata Medical and Diagnostics Ltd. (TataMD), the healthcare venture from Tata Group, has announced the commercial launch of TataMD CHECK, novel diagnostic testing for COVID-19. TataMD CHECK will use FNCAS9 Editor-Limited Uniform Detection Assay (FELUDA), a CRISPR Cas-9 technology that was developed in India by CSIR- Institute of Genomics and Integrative Biology (IGIB) for Covid testing. It is the world's first CRISPR Cas-9 based diagnostic tool to be launched globally.

TataMD CHECK is a lab test and uses CRISPR-Cas9 Technology. The process of collecting patient samples, RNA extraction, and amplification, etc. remains the same but uses simple, less expensive equipment and produces quicker results due to a more agile process and AI-based automated result detection. It is a paper strip-based test with image-based visual result readout. It requires standard laboratory equipment and small batches of tests can be conducted. Moreover, it has a fast reaction time of 45-50 minutes in the laboratory and the total testing time from RNA-extracted samples in the lab to result is 75 minutes only, the company said.

Nvidia Gets Inside Hyundai's 'Domain'

Hyundai Motor Group announced Monday that the Korean automotive giant will use Nvidia's DRIVE platform for every Hyundai, Kia and Genesis model's in-vehicle infotainment systems.

Since a Hyundai-Nvidia collaboration started developing in-vehicle infotainment systems in 2015, the latest announcement is hardly a big surprise to the automotive industry. Nonetheless, veteran automotive industry analyst Egil Juliussen called the deal significant because it puts Nvidia at the heart of "domain ECU" in infotainment systems for models across Hyundai's whole product line.

The reason having a standard software platform based on a single domain ECU is a big deal is because it substantially cuts the cost and time for Hyundai to develop infotainment software, Juliessen explained. Since much of the same software will be deployed into multiple models, it can give Hyundai a chance to keep debugging it. Juliussen noted, "Potentially, there will be fewer bugs in software, too."

Optoelectronics, Sensor Markets Pull Out of Tailspin

Some electronic component sectors hammered in the earliest days of the pandemic are showing signs of recovery and even modest gains going into an uncertain 2021.

While semiconductor and global wafer fab spending forecasts remain bullish, other sectors like optoelectronics, sensors, and discrete semiconductors have taken a beating the last eight months or so. IC Insights forecasts a 6.5 percent annual decline in the market sector that also includes actuators.

The one bright spot, optoelectronic components, accounts for more than half the segment's forecast sales for 2020: \$82.3 billion. That represents a 4.4 percent annual decline, a bit less than the loss predicted in the spring as the pandemic took hold.

Synopsys acquires Moortec as Silicon LifeCycle Management is New Mantra

Synopsys has announced it has acquired UK-based in-chip monitoring technology company Moortec. Moortec's technology form a part of the silicon lifecycle management (SLM) platform that the EDA company announced last month.

The terms of the deal were not disclosed, as Synopsys said it is not material to its financials. Stephen Pateras, senior director of test marketing at Synopsys told EE Times that the companies have been talking for about a year, and that the 60 or so staff at the Moortec would remain in the UK and other locations.

As systems on chip (SoCs) get more and more complex, understanding their real-world behavior is increasingly challenging, so this acquisition by Synopsys is going to be critical for the tools and software companies' chip monitoring and complete lifecycle management propositions.

Micron Leapfrogs to 176-Layer 3D NAND Flash Memory

TORONTO — Micron Technology touted its use of replacement gate (RG) technology for its latest 3D NAND flash memory, which it said is the first 176-layer NAND shipping in volume, while other players are focused on 128-layer NAND.

Eschewing floating gate in favor of a charge trap approach and combining it with its CMOS-under-array architecture enables Micron to significantly improve performance and density, said Derek Dicker, corporate vice president and general manager of Micron's storage business unit. The company's 176-layer NAND improves both read latency and write latency by more than 35% compared with the company's previous generation of high-volume 3D NAND and a layer count that is nearly 40% higher than its nearest competitor.