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ST Sprints While Q'comm Deal Hobbles NXP

ROUSSET, France — STMicroelectronics is sprinting toward the winner's circle in microcontrollers, near field communications (NFC) chips and sensors, while NXP Semiconductors is hobbled by its pending acquisition by Qualcomm.

ST, which just announced its Q2 financial results with net revenues of \$1.92 billion, up 12.9 percent year over year, is invigorated.

Although ST remains mum about any upcoming design wins, the positive glow at the Franco-Italian company today is fueled by growing speculation among market analysts that ST's time of flight (ToF) imaging sensors and NFC chips are getting designed into leading smartphones.

Mercedes Dumps DTM For Formula E

MONTREAL — An axiom that bears repeating is that every time a solid-state solution has been created to address an application space, it eventually comes to dominate that space. From the transistor to the flat-screen TV, history is rife with examples of the disruptive change that accompanies technological advance.

The moment the electric motor was created, the clock started ticking on legacy motion technologies.

The automotive space is a perfect example of this. Not only is the modern car at the convergence of every developing technology disrupting society, from the cloud to the smart grid, but cars themselves are undergoing fundamental change. Racing has always been a test bed for automotive development, so the growth of electric racing shouldn't surprise anyone.

Synopsys HBM2 IP Offers Up To 307GB/s Bandwidth

The new DesignWare High Bandwidth Memory 2 (HBM2) IP platform, consisting of controller, PHY and verification IP, from Synopsys promises to help designers achieve up to 307GB/s aggregate bandwidth, which is 12 times the bandwidth of a DDR4 interface operating at 3200Mb/s data rate.

Built on Synopsys' silicon-proven HBM and DDR4 IP, the complete DesignWare HBM2 provides unique functionality that enables designers to achieve their memory bandwidth, latency and power objectives, according to Synopsys. The DesignWare HBM2 Controller supports pseudo-channel operation in either lock step or memory interleaved mode, allowing users to maximise bandwidth based on their unique traffic pattern.

Both the HBM2 controller and PHY utilise a DFI 4.0-compatible interface to simplify integration with custom DFI-compliant controllers and PHYs.

NXP Adds Amazon Greengrass Support For Secure IoT

NXP Semiconductors has integrated the Amazon Greengrass software on its Layerscape Intelligent Gateway platform.

Amazon Greengrass is a software that extends Amazon Web Service's (AWS) Cloud capabilities to local devices, allowing them to collect and analyse data closer to the source of information, while also securely communicating with each other on local networks.

The integration, according to NXP, will provide efficient security support for edge computing and Internet of Things cloud interactions, paving the way for agile business delivery and secure IoT access for homes, companies and other business environments.

Eliminating Fractures In 3D Printed Parts

Brandon Sweeney, a doctoral student in the Department of Materials Science and Engineering at Texas A&M University has developed a method to make 3D printed parts 275% stronger and immediately useful in real-world applications. Sweeney, together with his advisor Dr. Micah Green applied traditional welding concepts and a carbon nanotube composite filament to bond the submillimetre layers in a 3D printed part together with focused microwaves.

Sweeney began working with 3D printed materials while employed at the Army Research Laboratory at the Aberdeen Proving Grounds in Maryland. "I was able to see the amazing potential of the technology, such as the way it sped up our manufacturing times and enabled our CAD designs to come to life in a matter of hours," Sweeney said. "Unfortunately, we always knew those parts were not really strong enough to survive in a real-world application."