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SCM Technology Enables Fast, Affordable Data

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India to Start 5G Trials

India's Department of Telecommunications (DoT) has given telecom service providers (TSPs) the green light for conducting 5G trials. The applicant TSPs include Bharti Airtel Ltd, Reliance JioInfocomm Ltd, Vodafone Idea Ltd and MTNL.

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Silicon Carbide Cost Outweighed by Performance Gains in EV

Power electronics remains based mostly on standard silicon devices. While three-level and other silicon circuit topologies are emerging to improve efficiency, new silicon carbide (SiC) designs are emerging to meet growing high-power requirements for electric vehicles.

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TALK TO US



eInfochips and NuCurrent to Accelerate Wireless Charging Technology Adoption

eInfochips, an Arrow Electronics company, has teamed up with NuCurrent to accelerate the adoption of wireless charging technology. The partnership with NuCurrent will enable eInfochips to customize, integrate and license NuCurrent technologies globally to customers needing to incorporate wireless power technologies into their products.

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EnSilica Mixed-signal ASIC is PPAP Approved for Hybrid Car

EnSilica has said a custom mixed signal ASIC it had developed with a tier 1 automotive supplier has completed a stringent automotive production part approval process (PPAP) and is ready to enter into mass production as part of a future hybrid vehicle.

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SCM Technology Enables Fast, Affordable Data Storage

Data creation is skyrocketing, propelled by trends such as edge computing, 5G networks, image processing, real-time voice processing, and an array of other sophisticated data generation and collection technologies. There's also an increasing need for "big data" to perform real-time analytics on the fly. These trends are now combining to create the need for fast and affordable storage technology.

Unfortunately, current storage technologies, primarily DRAM and SSD, are failing to meet the performance and/or cost requirements necessary to ensure that data storage can keep pace with the demands presented by a wide array of disruptive technologies. Emerging storage-class memory (SCM) technology promises to solve the current storage challenge and support innovative data-driven technologies by filling the performance and density gap that currently exists between DRAM and SSD solutions.

India to Start 5G Trials

India's Department of Telecommunications (DoT) has given telecom service providers (TSPs) the green light for conducting 5G trials. The applicant TSPs include Bharti Airtel Ltd, Reliance JioInfocomm Ltd, Vodafone Idea Ltd and MTNL. These TSPs have tied up with OEMs and technology providers, including Ericsson, Nokia, Samsung, and C-DOT. In addition, Reliance JioInfocomm will also be conducting trials using its own indigenous technology.

The permissions have been given by DoT as per the priorities and technology partners identified by TSPs themselves. The experimental spectrum is being given in various bands, which include the mid-band (3.2GHz to 3.67GHz), millimeter wave band (24.25GHz to 28.5GHz) and in sub-gigahertz band (700GHz). TSPs will also be permitted to use their existing spectrum owned by them (800MHz, 900MHz, 1800MHz and 2500MHz) for conducting 5G trials.

For now, the duration of the trials is for a period of six months. This includes a time period of two months for procurement and setting up of the equipment.

Silicon Carbide Cost Outweighed by Performance Gains in EV Apps

Power electronics remains based mostly on standard silicon devices. While three-level and other silicon circuit topologies are emerging to improve efficiency, new silicon carbide (SiC) designs are emerging to meet growing high-power requirements for electric vehicles.

In interviews, power devices managers at Mitsubishi Electric US highlighted the promise of silicon carbide when compared with standard silicon implementations.

They said efficiency improvements can be achieved with hybrid technologies that combine silicon with silicon carbide. For example, silicon-based insulated-gate bipolar transistors (IGBT) with silicon carbide Schottky-barrier diodes achieve efficiency improvements with relatively minor cost increases. For many applications, this represents a compromise between cost and performance.

eInfochips and NuCurrent to Accelerate Wireless Charging Technology Adoption

eInfochips, an Arrow Electronics company, has teamed up with NuCurrent to accelerate the adoption of wireless charging technology. The partnership with NuCurrent will enable eInfochips to customize, integrate and license NuCurrent technologies globally to customers needing to incorporate wireless power technologies into their products.

"NuCurrent's wireless charging solutions portfolio offers excellent performance and customer experience. Its Qi-Certified MP-A17 design supports 3X charging volume and 3X separation distance compared to other designs, allowing for differentiated applications in vehicles, furniture, infrastructure and more," said Aiden Mitchell, vice president and general manager of global supplier and engineering services for Arrow Electronics. "The combined capabilities of eInfoChips and NuCurrent mean industry-leading performance, wider options to customers, and speed to market through accelerated design cycles and product certifications."

EnSilica Mixed-signal ASIC is PPAP Approved for Hybrid Car

EnSilica has said a custom mixed signal ASIC it had developed with a tier 1 automotive supplier has completed a stringent automotive production part approval process (PPAP) and is ready to enter into mass production as part of a future hybrid vehicle.

EnSilica developed a bespoke mixed-signal ASIC device that integrates both high voltage and low noise sensing interfaces qualified to AEC-Q100 grade 0 and designed to achieve ISO26262 ASIL-D compliance. The ASIC's functionality was developed in close collaboration with the automotive supplier to meet the needs of the OEM's high-performance vehicle range which requires sophisticated chassis management and control. The technology is equally suited to hybrids, EVs and hydrogen fuel cell powered vehicles.