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Eggtronic Enables GaN-based Charging for EVs

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Qualcomm has unveiled reference designs targeting 5G-enabled M.2 cards that it hopes will be embedded in a range of laptops, PCs, tablets and routers as well as gaming and other mobile broadband devices.

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NXP UWB Technology Helps Samsung Users Find Their Belongings

NXP Semiconductors' Trimension Ultra-Wideband platform now offers fine ranging for new tagging use cases. UWB and Bluetooth Low Energy solutions have been combined to deliver spatial awareness to the new Samsung Galaxy SmartTag+, providing an enhanced experience to the Samsung SmartThings Find service.

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TALK TO US

Marvell Launches 1.6T Ethernet PHY for Cloud Data Centers

Marvell has launched the industry's first 1.6T Ethernet PHY with 100G PAM4 electrical input/outputs (I/Os) in 5nm. The demand for increased bandwidth in the data center to support massive data growth is driving the transition to 1.6T (Terabits per second) in the Ethernet backbone. 100G serial I/Os play a critical role in the cloud infrastructure to help move data across compute, networking

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Digi-Key Electronics Announces Dedicated Solutions for Startups

Digi-Key Electronics furthered its dedication to enabling the world's innovation by launching a microsite and help manual dedicated to making startups' dreams become realities. The startup site leverages resources, tools and knowledge Digi-Key has amassed in working with thousands of startups every year.

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Eggtronic Enables GaN-based Charging for EVs

A patented AC wireless power hybrid technology from Eggtronic is designed to increase the power and efficiency of wireless charging applications for home and automotive applications.

Igor Spinella, CEO and founder of Eggtronic, said the proprietary technology dubbed E2WATT is supported by a GaN half-bridge and a dsPIC33 microcontroller. That arrangement merges a conventional power adapter and Qi wireless transmitter, boosting efficiency to overcome challenges posed by the Qi wireless power transfer standard.

Traditional Qi wireless power is limited by distance (usually 5 mm), and maximum power (up to 30 W). Overheating is another issue: After fast-charging, thermal protections are activated, which stops charging. "Our solution directs the magnetic field in the right way, avoiding the problem of overheating not only for the Qi standard but also offering compatibility with the new Apple 12, which is not Qi-certified, thus paving the way not only for automotive but also for consumer applications," said Spinella.

Qualcomm 10-Gbps 5G Targeted at Laptops, PCs

Qualcomm has unveiled reference designs targeting 5G-enabled M.2 cards that it hopes will be embedded in a range of laptops, PCs, tablets and routers as well as gaming and other mobile broadband devices.

Qualcomm's designs will be powered by the Snapdragon X65 and lower-specification X62 5G modem-RF systems, which are based on the most recent Release 16 3GPP standard. That combination means the reference design will support spectrum aggregation and extended-range mmWave.

Qualcomm claims to be the first with a 10Gbit/s 5G reference design, but provided no data on potential real-world speeds.

The M.2 interface is a common form factor for solid-state drives as well as connector cards used in most computing devices. Qualcomm suggested the format could be used to create a "plug-and-play" framework for OEMs. That would make it easier to design and integrate into a range of devices.

NXP UWB Technology Helps Samsung Users Easily Find Their Misplaced Belongings

NXP Semiconductors' Trimension Ultra-Wideband platform now offers fine ranging for new tagging use cases. UWB and Bluetooth Low Energy solutions have been combined to deliver spatial awareness to the new Samsung Galaxy SmartTag+, providing an enhanced experience to the Samsung SmartThings Find service.

SmartThings Find is an innovative service within the SmartThings application, available on select Galaxy devices – including the Galaxy S21+ and S21 Ultra – featuring powerful detection capabilities that help users find the things that matter most, near or far. It can accurately locate Samsung Galaxy devices and any personal items – such as a backpack, wallet, or keys – with a Galaxy SmartTag attached through an intuitive tracking interface. And now, with the addition of Galaxy SmartTag+ utilizing Trimension UWB and Bluetooth Low Energy, users can take advantage of augmented reality technology to visually guide them towards their missing item using their smartphone's camera.

Marvell Launches 1.6T Ethernet PHY for Cloud Data Centers

Marvell has launched the industry's first 1.6T Ethernet PHY with 100G PAM4 electrical input/outputs (I/Os) in 5nm. The demand for increased bandwidth in the data center to support massive data growth is driving the transition to 1.6T (Terabits per second) in the Ethernet backbone. 100G serial I/Os play a critical role in the cloud infrastructure to help move data across compute, networking and storage in a power-efficient manner.

The new Marvell Alaska C PHY is designed to accelerate the transition to 100G serial interconnects and doubles the bandwidth speeds of the previous generation of PHYs to bring scalability for performance-critical cloud workloads and applications such as artificial intelligence and machine learning.

Digi-Key Electronics Announces Dedicated Solutions for Startups

Digi-Key Electronics furthered its dedication to enabling the world's innovation by launching a microsite and help manual dedicated to making startups' dreams become realities. The startup site leverages resources, tools and knowledge Digi-Key has amassed in working with thousands of startups every year. The manual, called the Startups Survival Guide, is the second edition leveraging Digi-Key's partnership with Startups Magazine. Both resources follow the 10-step journey, from ideation and prototyping through production and support, and provide expertly curated success factors to help mitigate the complexities and navigate towards success.

"Being the engineer's choice for early-stage prototyping through design and production, Digi-Key is uniquely positioned to share knowledge back to the startup community helping them navigate the particular challenges they face on their journey to success," said David Sandys, director of technical marketing at Digi-Key.