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Edge AI Solutions for Smart Homes Can Transform HMI

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Gen-Z Seeks to Share Memory, Lower Latencies

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TALK TO US

Tower Semiconductor Announces a New RF Switch Technology

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Marvell Targets Enterprise Edge with new Switch and PHY Portfolio

Growing remote workforces and future 5G and Wi-Fi 6 deployments mean that enterprises will become increasingly borderless. This entails a move from data center to the enterprise edge, and Marvell intends to capitalize on the trend with the introduction of a portfolio of Ethernet switches and PHYs that integrate security, analytics and visibility to enable an intelligent edge.

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Edge AI Solutions for Smart Homes Can Transform HMI

Consumers have an insatiable appetite for advancements that improve their convenience, safety, and user experience. We see that in an obvious way with the human interface, which has evolved over the years from being purely tactile, to include a wider range of input methods from voice to gesture to video and various computer vision capabilities, everywhere from sales terminals to smart homes. The next step in this will be devices that not just understand direct commands but can infer intent.

In parallel, the gnawing concerns over security and latency of traditional cloud-based connected devices have paved the way for more edge-based processing. This is especially true in human-machine interface (HMI). But local processing adds another wrinkle for technology developers who must consider the specific use case requirements, development options, and cost of smart (machine learning trained) devices that introduce new levels of automation to power perceptive intelligence and ambient computing.

Gen-Z Seeks to Share Memory, Lower Latencies

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Gen-Z uses memory-semantic communications to move data between memories on different components with minimal overhead, not only interconnecting memory devices, but also processors and accelerators, the latter of which are becoming increasingly popular for specific use cases — storage and artificial intelligence, for example — while taking pressure of the CPU. Ultimately, Gen-Z is about more flexibility and responsiveness when it comes to resource provisioning and sharing, allowing systems to be reconfigured as the demands of applications for different resources change.

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NXP is the first of the microcontroller vendors to create a customized version of Glow for its hardware. It has done so for the Cortex-M cores and Tensilica HiFi4 DSP core on its i.MX RT685, RT 1050 and RT1060 microcontrollers.

The company said using the custom implementation of Glow for its MCU products doubled performance of the CIFAR-10 model on the Arm Cortex-M core, compared to the standard version of Glow, or increased by a factor of 25 using an on-chip DSP accelerator.

Tower Semiconductor Announces a New RF Switch Technology with Breakthrough Performance

MIGDAL HAEMEK, Israel, August 03, 2020 –Tower Semiconductor (NASDAQ/TASE: TSEM), the leader in high-value analog semiconductor foundry solutions, today announces a new radio frequency (RF) switch technology with record figure of merit targeting the 5G and high-performance RF switch markets. This new switch technology enables more efficient, novel RF system architectures in applications including mobile, base-station and mmWave communications. Tower Semiconductor is engaged with multiple customers and partners to bring this technology to market for next-generation products.

This new switch technology demonstrates a record RF device figure of merit: Ron x Coff < 10 femtoseconds vs. 70-100 femtoseconds in use today for the most advanced applications. The switch performs over an extremely wide range of frequencies spanning MHz to all frequency bands discussed for 5G, and further into the mmWave. This results in extremely low insertion loss and very small device size.

Marvell Targets Enterprise Edge With New Switch And PHY Portfolio

Growing remote workforces and future 5G and Wi-Fi 6 deployments mean that enterprises will become increasingly borderless. This entails a move from data center to the enterprise edge, and Marvell intends to capitalize on the trend with the introduction of a portfolio of Ethernet switches and PHYs that integrate security, analytics and visibility to enable an intelligent edge.

According to Sameh Boujelbene, senior research director at telecoms research firm Dell'Oro Group, the growth of 5G, Wi-Fi 6 and internet of things (IoT) devices on the network means that enterprise switching will continue to extend beyond the traditional on-premises campus environment with increasing deployments at the access and intelligent edge. She commented, "These deployment use cases are driving emerging requirements in terms of security, analytics, visibility and automation. Marvell's new Prestera switch portfolio helps address those requirements."