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Microchip Expands Gallium Nitride RF Power Portfolio

Microchip Technology Inc. has expanded its gallium nitride (GaN) radio frequency (RF) power device portfolio with new MMICs and discrete transistors that cover frequencies up to 20GHz. The devices combine high power-added efficiency (PAE) and high linearity to deliver new levels of performance in applications ranging from 5G to electronic warfare.

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Marvell to Ship 5 Billionth HDD Controller

Marvell will ship its 5 billionth hard disk drive (HDD) controller next month, marking a significant milestone in the company's 25 years of delivering data storage solutions.

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Merck, Palantir Launch IC Supply Chain Platform

A technology partnership between the semiconductor materials arm of German multinational Merck and Palantir Technologies, the data analytics specialist, will tackle chip shortages via a collaboration platform aimed at chipmakers and their suppliers.

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TALK TO US



onsemi Inaugurates Design Center in Milan

onsemi's new design center in Milan aims to design, test, and validate power management systems in various industrial applications, including data centers for servers and large hyperscalers. The design center has been operating since 2018 but was inaugurated a few weeks ago with a briefing open to journalists.

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STMicroelectronics Enhances Tool for ML Applications

STMicroelectronics has launched Version 3 of NanoEdge AI Studio, the first major upgrade of the software tool for machine-learning applications that ST acquired with Cartesiam earlier this year. The new version comes as the shift of AI capabilities from the cloud to the edge offers manufacturers phenomenal potential to fundamentally improve industrial processes, optimize maintenance costs, and deliver innovative functions in equipment that can sense,....

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Microchip Expands Gallium Nitride RF Power Portfolio

Microchip Technology Inc. has expanded its gallium nitride (GaN) radio frequency (RF) power device portfolio with new MMICs and discrete transistors that cover frequencies up to 20GHz. The devices combine high power-added efficiency (PAE) and high linearity to deliver new levels of performance in applications ranging from 5G to electronic warfare, satellite communications, commercial and defense radar systems and test equipment.

Like all Microchip GaN RF power products, the devices are fabricated using GaN-on-silicon carbide technology that provides the best combination of high-power density and yield, as well as high-voltage operation and longevity of more than 1 million hours at a 255°C junction temperature.

They include GaN MMICs covering 2GHz to 18GHz, 12GHz to 20GHz, and 12GHz to 20GHz with 3dB Compression Point (P3dB) RF output power up to 20W and efficiency up to 25%, as well as bare die and packaged GaN MMIC amplifiers for S- and X-band with up to 60% PAE, and discrete high electron mobility transistor (HEMT) devices covering DC to 14GHz with P3dB RF output power up to 100W and maximum efficiency of 70%.

Marvell to Ship 5 Billionth HDD Controller

Marvell will ship its 5 billionth hard disk drive (HDD) controller next month, marking a significant milestone in the company's 25 years of delivering data storage solutions. This achievement is a testament to the longevity of Marvell's HDD business and underscores the company's ongoing commitment to investing in and developing cutting-edge Bravera HDD products and IP to address the ever-increasing need for greater storage capacity.

The ongoing digital transformation is driving the adoption of cloud services, digital payments, artificial intelligence, and 5G, requiring higher capacity data storage. As a result, cloud data centers are looking for HDD storage to meet the growing zettabyte demand. Marvell's comprehensive suite of Bravera HDD controller and preamplifier solutions leverage the company's IP and process excellence including over 1,500 HDD-related patents and 18 generations of Read Channel IP. With its advanced architecture built on best-in-class areal density, data reliability, and power consumption, Marvell is enabling the growth of mass storage applications from the edge to the cloud.

Merck, Palantir Launch IC Supply Chain Platform

A technology partnership between the semiconductor materials arm of German multinational Merck and Palantir Technologies, the data analytics specialist, will tackle chip shortages via a collaboration platform aimed at chipmakers and their suppliers.

Merck KGaA, Darmstadt, Germany, and Denver-based Palantir said this week the partnership would leverage data analytics and AI to advance semiconductor manufacturing via a platform dubbed Athinia. The collaboration tool would connect fab operators with chemical and materials suppliers, allowing them to securely share and analyze fab data to improve efficiencies, thereby addressing current supply chain disruptions.

onsemi Inaugurates Design Center in Milan

onsemi's new design center in Milan aims to design, test, and validate power management systems in various industrial applications, including data centers for servers and large hyperscalers. The design center has been operating since 2018 but was inaugurated a few weeks ago with a briefing open to journalists. The facility is equipped with a laboratory with state-of-the-art instrumentations for the development and testing of systems to meet the growing market needs for energy efficiency.

uring the inauguration ceremony, onsemi outlined its strategic vision to develop and market highly efficient smart power solutions to optimize energy consumption in cloud and telecom infrastructures because of the increasing demand for power with smart working. Such solutions include multi-phase controllers, point-of-load (PoL) regulators, smart power stages and 48-V topologies in automotive. During development, it is important to consider that 48-12 V converters must be scalable, i.e., be ready for the different power requirements of server platforms.

STMicroelectronics Enhances Tool for ML Applications Development

STMicroelectronics has launched Version 3 of NanoEdge AI Studio, the first major upgrade of the software tool for machine-learning applications that ST acquired with Cartesiam earlier this year. The new version comes as the shift of AI capabilities from the cloud to the edge offers manufacturers phenomenal potential to fundamentally improve industrial processes, optimize maintenance costs, and deliver innovative functions in equipment that can sense, process data, and act locally to improve latency and information security. Applications include connected devices, household appliances, and industrial automation.

NanoEdge AI Studio simplifies the creation of machine learning, anomaly learning, detection and classification on any STM32 microcontroller. This new release also includes prediction capabilities such as regression and outliers libraries. The tool makes it easier for users to integrate such cutting-edge machine-learning capabilities quickly, easily, and cost-effectively into their equipment. No data-science expertise is needed.