MMEC, CA DREAMS, and Northrop Grumman launch GaN Prototype Accelerator to Drive Microelectronics Innovation

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MMEC and CA DREAMS - both hubs of the Department of Defense's Microelectronics Commons program - and the Northrop Grumman Microelectronics Center, have officially launched the **GaN Prototype Accelerator Multi-Project Wafer (GanPA MPW) Opportunity**, a bold initiative aimed at accelerating innovation across the domestic gallium nitride (GaN) ecosystem.

The GaN Prototype Accelerator MPW Opportunity is designed to attract a broad spectrum of GaN RF designers - both traditional and non-traditional - and stimulate innovation through a structured, mission-focused design exercise. The objectives of the **GaN Prototype Accelerator MPW Opportunity** are to:

- Lower the barriers to entry for advanced GaN technology
- Engage a diverse pool of GaN designers
- Foster domestic design and fabrication capability
- Enable rigorous and repeatable RF design practices
- Provide secure, domestically sourced solutions in support of national security

Selected participants will be provided with access to EDA tools, Northrop Grumman Microelectronics Center GaN15 Power PDK, and 16 mm^2 to 25 mm^2 die area. Design teams are encouraged to define their own application and performance targets, with proposals judged primarily on technical merit and intended market impact. Submissions must clearly articulate the intended application, design methodology, and how the approach leverages advanced GaN technologies or introduces novel solutions.

Designers are expected to highlight their experience with GaN RF design, familiarity with EDA tools and proposed testing methodologies. Proposals should also outline potential paths for technology transition and include a "Quad" summarizing proposed effort.

David Via, Director of Programs and GaN Prototype Accelerator Lead at MMEC, emphasized the broader mission of the initiative:
"A core mission of MMEC is to accelerate domestic capabilities in microelectronics, particularly in areas critical to defense and security. The GaN Prototype Accelerator embodies this mission by opening the door to a wider community of innovators—bringing new ideas, diverse expertise, and fresh energy into the GaN design space. By giving participants access to cutting-edge tools and fabrication, we're helping close the gap between prototype and product."

Steve Crago, Principal Investigator of CA DREAMS, underscored the power of collaboration behind the initiative:
"Partnering with MMEC and Northrop Grumman to create the GaN Prototype Accelerator demonstrates the strength of the Microelectronics Commons model. This initiative shows how academia, industry, and government can come together to solve complex challenges. We're not just advancing GaN technologies—we're building the infrastructure and relationships needed for long-term innovation and supply chain resilience."

Mike Barsky, Senior Program Manager at Northrop Grumman Microelectronics Center, spoke to the importance of bridging innovation and implementation:
"Northrop Grumman is proud to support the GaN Prototype Accelerator as a means to foster next-generation innovation while strengthening domestic microelectronics capabilities. By providing access to our GaN15 MPW and technical infrastructure, we are helping emerging and established designers transition ideas into real, manufacturable

solutions. This program exemplifies how industry leadership and national collaboration can accelerate both technological advancement and mission readiness."

The **GaN Prototype Accelerator** team will officially kick off the program with an **Industry Launch Day** during the **International Microwave Symposium (IMS)** on June 19th, 2025. This session will provide attendees with a detailed overview of the **GaN Prototype Accelerator** effort, timelines, submission process, and a live Q&A opportunity.

Initiatives like the GaN Prototype Accelerator exemplify how MMEC, CA DREAMS, and Northrop Grumman continue to drive the advancement of semiconductor technologies by fostering strategic partnerships and robust collaboration across the microelectronics ecosystem. By integrating new insights and technologies in GaN, the consortium is accelerating the development and deployment of secure, mission-critical solutions.

To learn more about the GaNPA MPW effort and to register for the Industry Launch Day:
www.GaNChallenge.com
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About the MMEC

MMEC leads the acceleration of microelectronic technologies and delivers solutions to establish a trusted and resilient domestic supply chain. The MMEC is the premier collaborative, public-private ecosystem, that engages broadly across innovative partners in industry, academia and government to rapidly advance defense and commercial applications. This unique environment empowers members to discover new technologies, share capabilities, develop a skilled workforce and launch groundbreaking innovation into scalable commercial production for the benefit of National Security and economic dominance.

About CA DREAMS

CA DREAMS unites academic and commercial organizations across Southern California and our partners across the United States with three goals: maturation of advanced RF technologies for rapid prototyping, lab-to-fab transition of semiconductor technologies and training the next-generation of engineers in advanced RF and microelectronics technologies.

About Northrop Grumman

Northrop Grumman is a leading global aerospace and defense technology company. Our pioneering solutions equip our customers with the capabilities they need to connect and protect the world, and push the boundaries of human exploration across the universe. Driven by a shared purpose to solve our customers' toughest problems, our employees define possible every day.

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