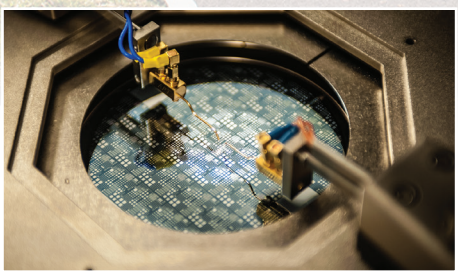
NexGen Syracuse FAB 1

World's only advanced fab dedicated to Vertical GaN

66,000 Square feet on 14 acres

20,000 Square feet cleanroom



State-of-the-art fab draws on NexGen's early GaN-on-GaN innovation.

This facility draws on NexGen's history of GaN innovation and ability to achieve higher performance benefits by leveraging core competency and leadership in semiconductors, power system design, manufacturing, and quality. We are proud that NexGen is accelerating the return of high-tech manufacturing to the US.

Power conversion systems are at the heart of every electronic device from home appliances to data centers, from laptops to electric cars. This technology is a pervasive part of the $100-billion global market. The problem is that today's power systems are based on decades-old technology that is large, inefficient and makes the power systems run hot wasting energy and money. NexGen Power Systems is revolutionizing power electronics with technology solutions utilizing Gallium-Nitride (GaN) on GaN discrete semiconductor devices, modules, and systems that increase the efficiency and reliability of power conversion systems while dramatically reducing their cost, size, and weight.

www.nexgenpowersystems.com/fab

NEXGEN™ POWER SYSTEMS

NexGen is Revolutionizing the Future of Power Electronics

With state-of-the-art tools for GaN epitaxial growth, materials characterization, device design and processing, electrical characterization, reliability testing, and product development, FAB 1 is the world's largest, Gallium Nitride fabrication facility where the revolutionary NexGen Vertical GaN™ power transistor devices are manufactured.

Our vision is to create the smallest, lightest, most cost-effective power conversion systems in the world. The technology at the core of this revolution is NexGen's Vertical GaN™ power transistor device manufactured in a $100M, state-of-the art manufacturing facility in Syracuse, New York. Built in 2017, the NexGen FAB-1 is built over a 14- acre lot with over 66,000 sq. ft. of total manufacturing space, and 20,000 sq. ft. of clean room space. Equipped with over $20M in the latest tools and machines, that are configured to handle 4" - 8" GaN wafers, this fab can produce 1B units annually. NexGen's world-class team of engineers with a proven track record in inventing, developing, and commercializing semiconductor and power systems, and the roadmap of exciting new products, will continue to revolutionize the power electronics landscape in consumer and industrial applications.

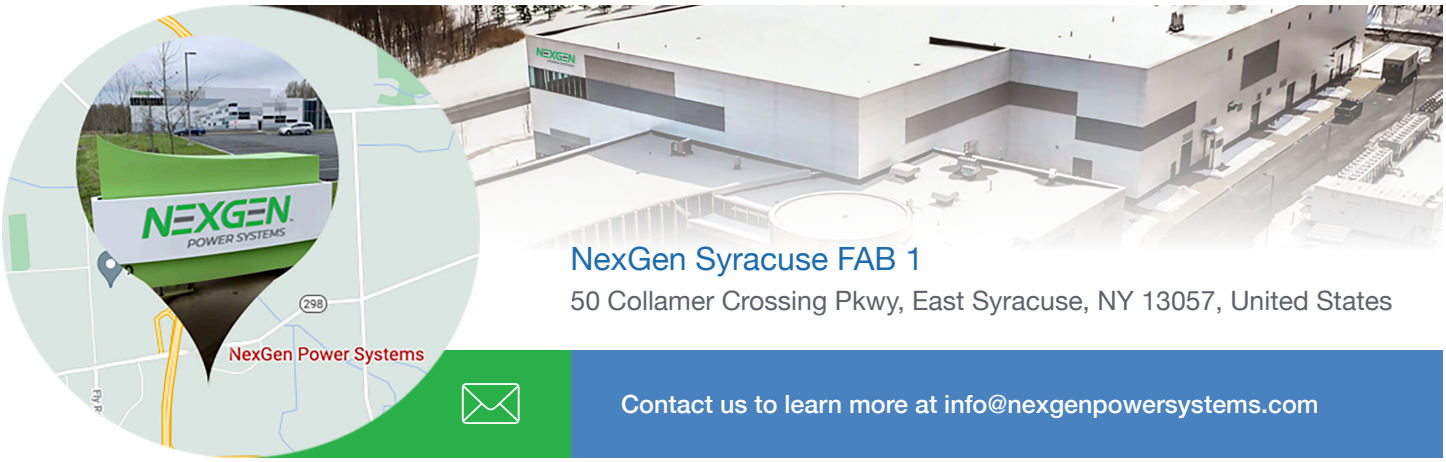
NexGen Vertical GaN™ and Power Electronics — The Perfect Match

In power semiconductors, size matters, and the smaller the device, the greater the performance. Building on Gallium Nitride's superior semiconductor properties with a wider electronic bandgap and higher electric field, NexGen's unique patented design makes its NexGen Vertical GaN™ power transistors 95% smaller than traditional silicon devices, resulting in:

Silicon

NexGen Vertical GaN™

- **67%** lower switching losses
- **5-10x** higher switching frequencies
- **1000x** higher energy density, and
- **60%** smaller and lighter power systems



NexGen Syracuse FAB 1

50 Collamer Crossing Pkwy, East Syracuse, NY 13057, United States

Contact us to learn more at info@nexgenpowersystems.com

About NexGen Power Systems

NexGen Power Systems, the premier vertically integrated power electronics company, designs, develops, and manufactures innovative power conversion systems with its revolutionary NexGen Vertical GaN™ semiconductor technology.

www.nexgenpowersystems.com

Published by
NexGen Power Systems
3151 Jay St #201, Santa Clara, CA 95054, United States

Founded in 2017, NexGen Power Systems is revolutionizing power electronics with technology solutions utilizing GaN-on-GaN (NexGen Vertical GaN™) discrete semiconductor devices, controllers, modules, and systems that increase efficiency and reliability of power conversion systems while dramatically reducing their cost, size, and weight. Our vision is to create the smallest, lightest, most cost-effective power conversion systems in the world.

NEXGEN™ POWER SYSTEMS