The World's Smallest and Most Efficient Computing and Gaming Power Supply

NexSys 240W (NC240S)

www.nexgenpowersystems.com/compute-solutions

NEXGEN™
POWER SYSTEMS

For over 20 years, computer power supply units have been bricks.

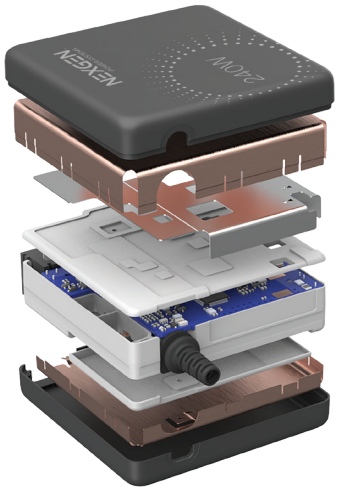
Decades old silicon-based power conversion systems have reached their limits in solving today's challenges around efficiency and power density. The NexSys 240W commercializes NexGen's Power Platform introducing a new generation of ultra-compact, ultra-powerful computing and gaming power supplies.

>30% Lighter

>30% Reduced Power Loss

>15% Smaller in Volume

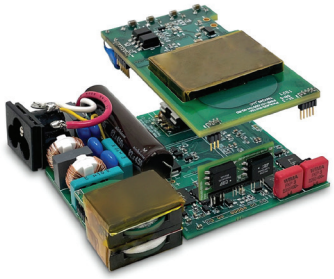
World's first Power Factor Correction (PFC) subsystem operating at 2+MHz with NexGen Vertical GaN™ for higher efficiency & smaller size



planar magnetics

merlin power engine

NEXGEN VERTICAL GaN



The NC240S AC-DC adapter is designed to power laptop and notebook type computers with universal AC input range of 90-264V AC and 240W of output power.

Features

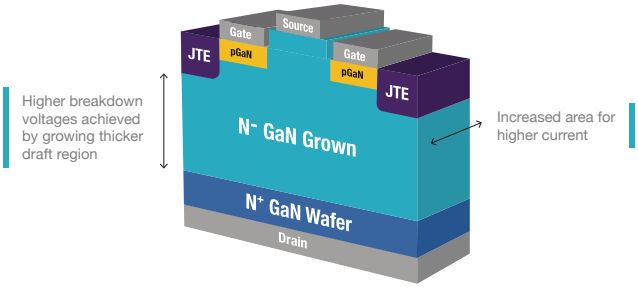
- 240W Output power
- Universal input (90-264V AC)
- 92% power efficiency target
- Full protections: over-voltage, over-current, over temperature, over-current, short-circuit
- Switching frequency of 2+MHz PFC and 1+MHz LLC
- Universal energy and safety certifications

Applications: Laptops | Desktops | Monitors | E-bikes

Next-generation PSUs require a next generation power platform

Built on a scalable, software configurable power platform, the NexSys 240W is designed to scale up and down the power levels to address the entire compute market space. From 100W mobile power adapters to 1kW Flex ATX power supplies, whether it is business or gaming, or high performance computing, the NexGen power platform has the solution for all your compute power needs.

NexGen Vertical GaN™ technology at the core



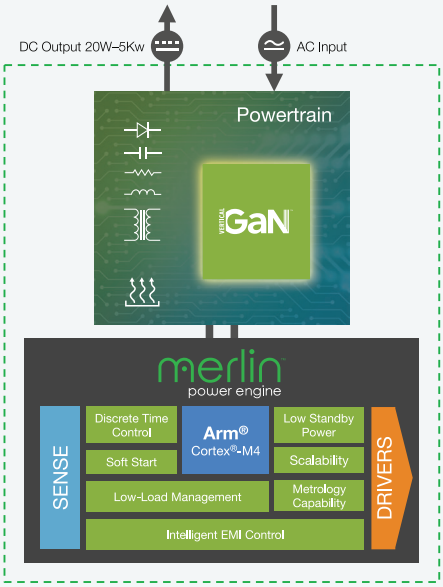
Powering the NexGen Platform with a new benchmark in power electronics

- Built with GaN grown on a GaN substrate to reduce size and cost
- Switching at a cutting-edge 1+ MHz, 100x the speed of Si
- Inherently reliable with a 4kV breakdown voltage and Avalanche capability
- Manufactured in NexGen's state-of-the-art Fab in Syracuse, NY

Switching with the Merlin Power Engine

Delivering the World's First 1+ MHz Switching Digital Powertrain Controller

- Enables scalability to higher power through interleaving multiple phases
- Implements Novel Power Control through configurable Software Algorithms
- Flexible architecture to adapt to different power topologies
- Provides advanced features such as Metrology and Intelligent EMI control



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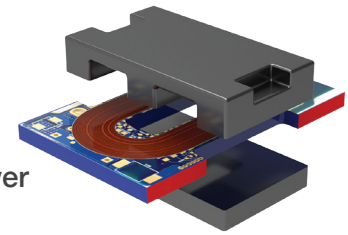
Innovation Beyond Power



Revolutionary magnetics and thermal engineering enabled through NexGen World-Class Systems Organization

- Planar Magnetics provides 10x lower leakage than current magnetic solutions
- Implements low profile, flat windings, and reduced noise sources
- Efficient thermal design with advanced thermal impedance management
- Provides excellent repeatability in manufacturing

Ordering information

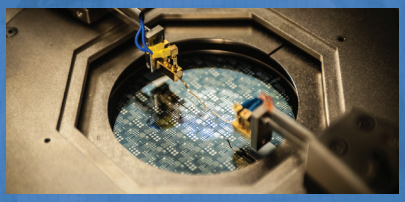
N	X	XXX	X	-	XXX	X	XXX	X	X	X	-XXXX
Company	Application	Power	Isolation		Rated current	Input Voltage	Max Output Voltage	Dimming	Programmable	Enclosure	Part # Extension
N: NexGen	C: Computing	240: 240W	S: Isolated		120: 12.0 A	C: 90-264V AC	200: 20.0V	X: None	F: Fixed current	example: 96mm x 96mm x 26mm	Optional

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.

FAB, Syracuse, NY

The world's largest dedicated Gallium Nitride fabrication facility.



Headquarters
3151 Jay St, Suite 201
Santa Clara CA 95054
+1-408-555-0123

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Contact us to learn more at
info@nexgenpowersystems.com

www.nexgenpowersystems.com

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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.

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