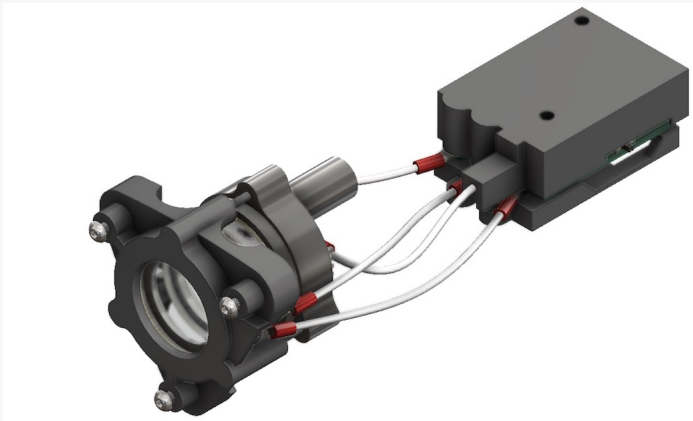
NS Nanotech Ships Far-UVC Disinfection Module with Compact Integrated Power Supply

The ShortWaveLight™ 215 Emitter Module and a new full-function desktop sample provide flexible design options for far-UVC disinfection application developers

ANN ARBOR, CA, UNITED STATES, March 24, 2025 /EINPresswire.com/ -- NS Nanotech announced it is shipping its far-UVC ShortWaveLight™ 215 Emitter with a new integrated power supply in a modular product design for easy installation in close-quarters disinfection applications. The company also announced availability of a fully functioning desktop sample enabling developers to easily perform photobiological and performance testing of the new 215-nanometer far-UVC light source.

The NS Nanotech ShortWaveLight 215 Module is the world's only solid-state semiconductor to produce 215nm far-UVC light. Running on a standard 12-volt power source, it enables human-safe photonic disinfection of deadly pathogens that cause Covid, measles, bird flu, tuberculosis, and many other diseases. Because its short far-UVC wavelength doesn't easily penetrate skin or eyes, it can be safe to use in occupied areas. And the small size of the new integrated module enables



The NS Nanotech ShortWaveLight 215 Module connects a far-UVC emitter to a slim, custom power supply with a set of wires to provide maximum flexibility for designers of far-UVC disinfection applications. Single-unit quantities are priced at $350.

The NS Nanotech ShortWaveLight 215 Module integrating the lamp and power supply can be configured at an angle to easily fit in the corner of a wall and ceiling of a vehicle to disinfect passengers' breathing zones with far-UVC light.

disinfection of confined spaces where other ultraviolet light sources cannot be easily deployed.

"Our ShortWaveLight 215 Emitter module is powerful enough to safely and effectively disinfect the airspace in your personal breathing zone," said Seth Coe-Sullivan, CEO and Co-founder of NS Nanotech. "It is a compact, affordable, solid-state far-UVC light source ideally suited for constant close-quarters disinfection of office cubicles, school buses, ambulances, taxicabs, airplanes, and countless other occupied spaces."

A full-function sample prototype product integrates the NS Nanotech ShortWaveLight 215 Module into a desktop sphere useful for photobiological and performance testing by application developers. Single-unit quantities are priced at $500.

For information on product pricing and availability, contact Victor Hsia, NS Nanotech head of worldwide sales and business development.

Integrated module and desktop sample enable flexible design options

> Our compact, solid-state far-UVC light source is ideal for constant close-quarters disinfection of office cubicles, school buses, ambulances, taxicabs, airplanes, and countless other occupied spaces."
>
> *Seth Coe-Sullivan, NS Nanotech CEO and Co-Founder*

The ShortWaveLight 215 Emitter lamp is approximately two inches wide by three inches high, about the size of a small bathroom nightlight. A thermionic electron-beam cathode and proprietary nitride semiconductor emit high-energy far-UVC photons capable of deactivating many of the world's most dangerous pathogens. With a new, compact custom power supply connected to the emitter by a set of wires, the product module provides disinfection application designers with optimal flexibility.

"The power supply and lamp can be aligned in a slim vertical package, stacked side-by side, or angled in whatever ways work best for any close-quarters application," Coe-Sullivan said. "You can bundle the emitter and power supply in a 45-degree configuration to fit neatly into the junction of the ceilings and walls of buses, ambulances, and other vehicles. Or a module arranged vertically can be small and narrow enough to flush-mount behind a wall."

NS Nanotech has also designed its own prototype sample desktop product that makes it easy for developers to perform photobiological or performance testing. A black sphere, similar in size to

an Amazon Echo or Apple HomePod speaker, integrates the ShortWaveLight 215 Emitter module, runs on a standard 12-volt power source, and sits smartly on a desktop. “It’s easy to envision a far-UVC desktop purifier for consumers that looks a lot like our ShortWaveLight prototype sample,” Coe-Sullivan said.

Human-safe disinfection of air and surfaces with far-UVC ultraviolet light

Far-UVC ultraviolet light, at wavelengths from 200-to-230 nanometers, deactivates viruses in the air and on surfaces but doesn't penetrate the skin far enough to reach live cells. When it reaches your body, your external "stratum corneum" layer of dead skin cells absorbs the light before it reaches your living cells. And when it reaches your eye, your protective tear layer absorbs the short far-UVC light waves before they can reach your cornea. Therefore far-UVC light can be used in many locations where longer-wavelength 254nm UVC light cannot be used.

The patented technologies in the NS Nanotech ShortWaveLight 215 Emitter set it apart from other current sources of far-UVC light, offering product developers a new form factor and cost equation for disinfection applications that inactivate viruses, microbes, and other pathogens on surfaces and in the air. Unlike gas-based 222nm krypton-chloride far-UVC lamps, the ShortWaveLight 215 Emitter utilizes a cost-effective solid-state semiconductor that runs cool, with a small form factor enabling easy integration into disinfection products. And unlike semiconductor-based UVC LEDs, which suffer steep reductions in efficiency at wavelengths shorter than 230nm, it efficiently delivers 215nm far-UVC light.

Cost breakthrough for far-UVC disinfection expands potential markets

NS Nanotech’s ShortWaveLight 215 Emitter module is also more cost effective than alternative sources of far-UVC light, with breakthrough prices set to encourage developers to design and deliver new, affordable photonic disinfection applications for many new markets.

The single-unit price for a module integrating the emitter and power supply is $350. The single-unit price for the desktop sphere prototype sample is $500. Those prices are less than half the current costs of comparable alternative sources of far-UVC light. And Coe-Sullivan said volume price reductions will be available as production of the module scales to meet demand from application developers marketing end products.

“NS Nanotech’s compact, cost-effective 215-nanometer light source will help expand the universe of human-safe disinfection applications, especially in small, occupied spaces where far-UVC disinfection was previously impractical or impossible,” Coe-Sullivan said. “By combining the benefits of an efficient solid-state semiconductor with the power of far-UVC disinfection, our ShortWaveLight 215 Emitter takes the fight directly to SARS-COV2, H5N1 avian flu, measles, TB, polio, and many pathogens that threaten to cause future pandemics.”

About NS Nanotech

NS Nanotech’s patented technologies, drawing on a decade of work on nitride semiconductors by researchers at McGill University and the University of Michigan, dramatically improve the fabrication process and resulting efficiency of nano-scale light-emitting materials. NS Nanotech's ShortWaveLight™ 215 Emitter, the world’s highest-energy semiconductor ultraviolet light source, enables human-safe air and surface disinfection in occupied spaces with far-UVC light. With headquarters in Ann Arbor, Michigan, and an R&D center in Montréal, Canada, NS Nanotech also develops gallium-nitride nanowire-based LEDs for visible displays based on exclusive licenses to patent portfolios owned by the University of Michigan and McGill University.

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