

Topic: NSWC-3

NSWC Crane

Radiation Hardened by Design Power Structures

Naval Surface Warfare Center, Crane Division (NSWC Crane) has developed a patent pending suite of innovative radiation hardened by design (RHBD) power structures addressing an array of radiation issues exhibited by commercial power devices, such as single-event gate rupture (SEGR), single-event burnout (SEB), and ionizing radiation. These RHBD power structures provide unique operating characteristics and performance that lowers manufacturing costs, allows for smaller sizes, reduces overall weight, and supports higher voltages which lead to more design options and flexibility for products. Device designs allow for easy integration into existing fabrication processes with minimal effort and costs. They can be fabricated as a discrete power device or fabricated into more complex integrated circuits such as linear or analog circuits. Government and prime contractors are sought for integrating and transitioning these structures into commercial, space, and military products for improved system performance and market demand.

Technology Category Alignment:

Manufacturing Technology for Affordability

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SYSCOM: NAVSEA

Contract: ORTA-3

Department of the Navy SBIR/STTR Transition Program

Statement A: Approved for Release. Distribution is unlimited.

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WHO

SYSCOM: NAVSEA

Sponsoring Program:

Transition Target:

TPOC:

Other transition opportunities:



WHAT

Operational Need and Improvement:

Specifications Required:

Technology Developed:

Warfighter Value:

WHEN

Contract Number: ORTA-3

Milestone	Risk Level	Measure of Success	Ending TRL	Date
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HOW

Projected Business Model:

Company Objectives:

Potential Commercial Applications:

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