

HAWKSIGHT



CAPABILITIES SHEET



PEAK **HAWKSIGHT™**
OPTICS CAPABILITIES





HAWKSIGHT™

Company Data

- Founded: 2016
- Headquarters:
Peak Nano Optics, LLC8190
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216-750-8673
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- Federal Tax ID: 85-0700734
- DUNS: 117678034
- Unique Entity ID:
82-4236128
- CAGE/NCAGE: 70PU4
- NAICS Codes: 571700

Contract Vehicles

- Congressional 1 (FY22) DOTC
1068ManTech DOTC 0387
- The Govt Environmental Program
DOTC 1318
- Congressional 2 (FY23)
BAA - Nanolayered Polymer
Optics Contract

Peak Markets and Customers

Markets

- Defense
- Power Systems
- Fusion Energy
- Aerospace
- Life Sciences
- Packaging

Customers

- US Army
- Canadian Army
- Millbrook Tactical
- Wilcox Industries
- SRI
- Rampart
- General Atomics
- Panasonic
- SARA
- EATON
- TDK

PEAK HAWKSIGHT™ OPTICS CAPABILITIES

Peak Mission

Our mission is to “develop nanoscale technologies that deliver macro-scale benefits.” Peak HawkSight optics are 100% U.S.-engineered and manufactured, with no reliance on China for our supply chain. Developing technology is critical for our nation’s innovation, but a safe and secure supply chain is required to ensure national security.

Peak Overview

Peak Nano was founded in 2016 to leverage revolutionary advances in nanotechnology for defense, energy, and communications. The foundational research for NanoPlex™ was a collaboration of Case Western Reserve University, DARPA, the Naval Research Laboratory (NRL), and grants from the National Science Foundation. Peak uses NanoPlex nanolayered metamaterials, not glass, to make our lightweight, high-performance optics.

HawkSight LGRIN Optics

HawkSight optics use our HawkAI™ design platform to create lightweight, high-performance optics based on Layered Gradient Refractive Index (LGRIN) technology. Peak creates hybrid optics systems that blend the advances of LGRIN with the proven reliability of glass to create evolutionary advances that deliver an overmatch advantage for our warfighters.

Unparalleled Optics Performance with LGRIN Technology



2x THINNER OPTICS

Our LGRIN technology enables Peak to create optics up to 2X thinner than traditional glass optics.



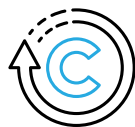
50% LIGHTER OPTICS

Our optics leverages Peak’s patented NanoPlex metamaterials to create up to 50% lighter optics than traditional glass-based optics.



WIDER FIELD OF VIEW

HawkSight’s LGRIN enables us to design for wider fields of view to provide better performance and lighter weight glass optics.



OPTIMIZED COLOR RESOLUTION

LGRIN technology provides superior color resolution and management to make images sharper and more accurate.



HIGH-RESOLUTION ACROSS THE FOV

Peak’s LGRIN technology provides complete focus and high resolution across the Field of View (FOV) unlike some glass optics.



ENVIRONMENTAL SAFETY

Using NanoPlex metamaterials for LGRIN optics eliminates the use of glass optics made with lead, nickel, and other hazardous substances.



HAWKSIGHT OPTICS US DESIGN AND MANUFACTURING

HawkSight LGRIN Optics

- **Advanced Metamaterials** - HawkSight Optics are made from Peak's NanoPlex metamaterial.
- **LGRIN Technology** - LGRIN reflects over 20 years of efforts by researchers who jointly developed the technology from DARPA, NRL, Case Western Reserve University, and the DOE.
- **AI-Based Design** - Our HawkAI design software enables Peak to reduce design time from years to months, creating a sustainable competitive advantage.
- **Lightweight Optics** - HawkAI designed lenses are up to 2x thinner and 50% lighter than traditional glass optics.
- **High Performance** - HawkAI designed lenses optimize optics performance across the field of view, color clarity, and distance.
- **Patented Technology** - Over 20 global patents protect Peak's technology.
- **US Made** - HawkSight optics and our NanoPlex metamaterials are designed and manufactured in the U.S.
- **Secure Supply Chain** - Peak uses an allied-nation supply chain with no resources or materials from China.

MATERIALS LEADERSHIP



AI DESIGN LEADERSHIP



OPTICS LEADERSHIP



NANOPLEX

US-Based Metamaterial
Over 800 Refractive Indexes
50% Lighter than Glass



HAWKAI™

Optics AI Design Platform
10x Faster Development
LGRIN Optimized Optics Designs



HAWKSIGHT™

2x thinner and 50% Lighter Optics
Enhanced Field of View
Optimized Clarity and Distance

Peak Optics Capabilities

Peak has created a new way to design lightweight, high-performance optics, starting with our NanoPlex metamaterial, which is 50% lighter than glass. Next, we use our HawkAI design software to optimize the performance of our designs and consolidate the optics system. Finally, we produce new optics for the most demanding applications.

Night Vision

HawkSight optics give warfighters a significant advantage, shifting the night vision paradigm from glass-only optics to hybrid LGRIN night vision systems that are lighter, higher performing, and more compact than traditional glass-only optics. We reduce solder burden (neck strain, eye box) and improve target identification, situational awareness, and operational tempo with wider FOV, increased clarity, and extended target identification.

Fire Control

Peak's FireHawk fire control systems have delivered lightweight optics systems emphasizing portability and ease of deployment to adapt to various terrains and operational needs. Peak ensures that our fire control optics and systems are modular, allowing for easy upgrades with emerging technologies. By leveraging existing form factors, we reduce setup time, enabling faster responses and adaptability in combat situations.

Unmanned Aircraft Systems (UAS)

Peak's SkyHawk designs will be able to reduce weight and enhance the preferences of UAS systems to increase operation time, and deployment stance and provide enhanced intelligence and targeting capabilities.