

HAWKSIGHT



SOLUTION BRIEF



**HAWKSIGHT™ OPTICS CREATE  
OVERMATCH CAPABILITY FOR  
NIGHT VISION**



# ENHANCED FOV

## HAWKSIGHT LGRIN NIGHT VISION BENEFITS

### - Enhanced Overmatch Capability

LGRIN enhances field of view (FOV) and visual range, accelerating target identification and optimizing operational efficiency by minimizing weight and maximizing operational tempo.

### - Optimized Situational

**Awareness** HawkSight ensures superior image clarity to the lens edge for improved performance and expanded visibility.

### - Alleviate Soldier Burden

LGRIN Mitigates neck torque through lighter-weight optics, balanced designs, and wider FOV, reducing neck torque.

### - Maximize Safety

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

**U.S. Crafted Precision** Optics meticulously engineered and manufactured in the United States, guaranteeing top-notch quality and reliability.

**American Innovation** Peak products and technology are safeguarded by over 20 U.S. and global patents, ensuring innovation and intellectual property protection.

## PEAK HAWKSIGHT OPTICS ENABLE WARFIGHTERS TO **DOMINATE THE DARK**

### Elevate Awareness, Enhance Tempo, and Level-Up Lethality

Peak comprehends the unique demands of every mission, acknowledging the imperative to enhance gear for heightened situational awareness, increased effectiveness, and improved operational tempo to ensure survival. We are ushering in a new era of optics that augment conventional glass-based optics with our advanced LGRIN (Layered Gradient Refractive Index) optic technology - offering lighter, higher-performing, and safer solutions, thereby revolutionizing the survivability of warfighters.

### 5 Ways HawkSight Helps Night Vision

Introducing the next generation of optics, powered by two groundbreaking technologies: LGRIN optical design and advanced metamaterials, which enhance conventional glass. Peak's NanoPlex™ metamaterials, integral to this innovation, overcome the limitations of glass, thereby enhancing the nighttime performance of warfighters. Our HawkSight optics provide warfighters with a significant advantage, marking a paradigm shift in night vision technology from glass optics to hybrid optics with LGRIN. LGRIN optics are not only thinner, lighter, and more compact than traditional glass optics, but also offer superior performance. This breakthrough enables Peak solutions to reduce the burden on warfighters and optimize mission performance, leading to enhancements in the following areas:

- 1 | **Optimize Situational Awareness** - LGRIN lens enables us to design for a wider field of view improving environmental understanding.
- 2 | **Increase Operational Tempo** - LGRIN optics are up to 35% lighter than comparable glass optics, reducing the weight of night vision devices for increased agility.
- 3 | **Faster Target Identification** - LGRIN optics deliver exceptional clarity, enabling quicker and more precise target identification by warfighters at extended distances.
- 4 | **Advanced Survivability** - React faster with lightweight optics, minimizing head movements and reducing target acquisition times.
- 5 | **Ease Soldier Burden** - LGRIN reduces optics weight, lessening neck torque, minimizing eye strain, and lowering overall kit weight.



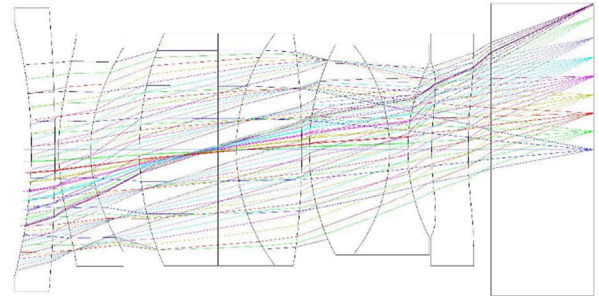
HAWKSIGHT™



## Glass Optics - 3 Major Challenges

Glass optics, rooted in century-old stagnation, lag behind adversarial nations. LGRIN addresses three core challenges, signaling a significant technological shift.

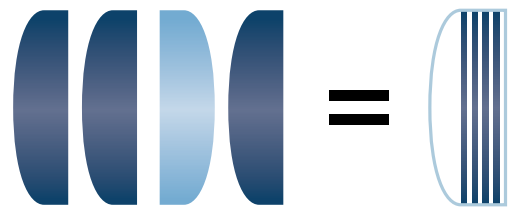
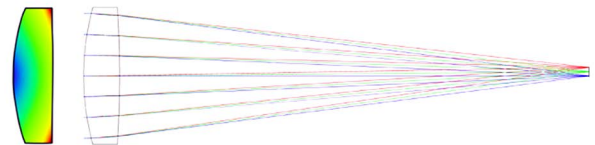
- 1 | **Color and Clarity Aberrations** - Glass lenses commonly exhibit color aberration, where various light wavelengths fail to converge at a single point post-lens passage.
- 2 | **Complex Multi-Len Systems** - Multi-lens configurations correct color aberrations and attain sharp, clear image.
- 3 | **Heavy Glass Lens Designs** - Glass is frequently 50% heavier than modern metamaterial alternatives.



## HawkSight LGRIN Creates Overmatch, Optimizes Clarity and Target Identification

The optics industry is undergoing disruption with the emergence of LGRIN optics lenses, addressing a key challenge in glass optics that hinders innovation in the night vision market.

- 1 | **Enhance Clarity with NanoPlex™ Metamaterial** - LGRIN optics utilize NanoPlex, a multi-layered refractive index design that minimizes color aberration more effectively than only glass lenses, ensuring superior color resolution.
- 2 | **Streamlined Optics Designs** - LGRIN empowers designers to reduce the number of glass lenses by including LGRIN lenses in various applications.
- 3 | **Lighter Weight Night Vision** - HawkSight optics weigh up to 50% less and are 2x thinner than comparable glass optics of the same size. Our LGRIN technology also allows for the consolidation and reduction of heavy glass lenses in systems.



Four Glass Lenses

Consolidated LGRIN Lenses



# OPTIMIZE AI INNOVATION WITH LGRIN

## Lighter Weight Night Vision

- Achieve expanded field of view, tailored to specific applications
- Enhance situational awareness
- Broadens stereoscopic "sweet spot"



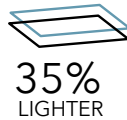
## Target Identification

- Optimal target identification over distance
- Enhances low-light battlefield clarity



## Lightweight Optics

- Improves operational tempo
- 35% lighter than glass lenses
- 2x thinner, reducing optical weight



## Optics Performance

- Enhanced color, clarity, and depth perception
- Improved visibility to the edge of the lens
- Suitable for soldiers with varying visual acuity



## Ergonomic Design

- Reduces neck torque and eye strain
- Optimizes eye box performance



## Warfighter Safety

- Reduces use of hazardous substances
- LGRIN improves warfighter performance



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