Astra Night Vision Unveils ASTRA-P18 Panoramic Digital Night Vision Goggle at SHOT Show 2027

Four-sensor panoramic system combines a 120° field of view, ultra-low latency, extreme low-light sensitivity, high image clarity, and lightweight construction for next-generation digital night vision.

PRODUCT HIGHLIGHTS

- 120° panoramic field of view
- Four 1-inch CMOS sensors
- 120 FPS high-speed imaging
- 0.00005 lux minimum illumination
- Lightweight construction, under 640 g

LAS VEGAS — January 19, 2027 — **Astra Night Vision** today announced the launch of the **ASTRA-P18**, its newest panoramic digital night vision goggle, at **SHOT Show 2027**. Engineered to push the limits of digital night vision, the ASTRA-P18 combines wide-area situational awareness with high-speed imaging, exceptional low-light sensitivity, ultra-low latency, high image clarity, and lightweight construction in a field-ready platform.

Built around a **four-sensor panoramic imaging architecture**, the ASTRA-P18 delivers a **120° horizontal field of view**, giving users significantly greater peripheral awareness than conventional single-channel night vision systems. Four 1-inch CMOS image sensors work together to create a broad, detailed view of the surrounding environment while maintaining responsive, natural-feeling imaging.

The ASTRA-P18 was developed around the elements that matter most in demanding nighttime environments: **latency, sensitivity, clarity, field of view, and weight**. Its **120 FPS imaging system** is engineered for smooth motion reproduction and rapid visual response, helping reduce the disconnect commonly associated with slower digital night vision devices. Combined with Astra Night Vision's advanced image-processing architecture, the P18 delivers an ultra-low-latency visual experience that feels immediate and intuitive during movement.

With minimum illumination performance rated at **0.00005 lux**, the ASTRA-P18 is designed for extremely low-light environments while preserving image detail and visibility. Its large-format sensor architecture and optimized optics prioritize high sensitivity without sacrificing the clarity needed to recognize terrain, objects, and environmental detail. The result is a digital system purpose-built to perform where image quality and low-light confidence matter most.

Despite incorporating four independent imaging channels, the P18 maintains a compact and lightweight design. Its durable construction combines magnesium-aluminum alloy, aluminum alloy, and composite

materials to balance ruggedness and portability, with total goggle weight kept to **under 640 grams**. This enables a more comfortable platform for extended wear while preserving the robustness demanded by professional users.

> *"Digital night vision should not force users to choose between modern functionality and real-world optical performance. The ASTRA-P18 reflects our commitment to combining panoramic situational awareness, ultra-low latency, high sensitivity, and high image clarity in a practical system designed for serious nighttime use."*

A New Standard for Panoramic Digital Night Vision

Traditional night vision systems typically provide a comparatively narrow field of view, requiring users to turn their heads frequently to understand the surrounding environment. The ASTRA-P18's 120° panoramic field of view is designed to provide substantially more visual information at a glance, enabling faster scene comprehension and broader awareness across the user's surroundings.

That expanded field of view can provide practical advantages across applications including tactical operations, law enforcement, security, search and rescue, outdoor navigation, and professional nighttime observation. By combining wide-area awareness with responsive digital imaging, the ASTRA-P18 is built to bring next-generation performance to real-world low-light missions.

The Astra Night Vision Product Lineup

- **ASTRA-X10** — A compact digital night vision platform designed to make high-performance low-light imaging and practical digital capability more accessible.
- **ASTRA-P14** — A high-performance monocular platform focused on low-light sensitivity, image quality, responsiveness, and professional-grade usability.
- **ASTRA-P18** — A four-sensor panoramic digital night vision goggle delivering a 120° field of view, ultra-low latency, high sensitivity, and high image clarity.
- **ASTRA-P31** — An advanced dual-sensor digital night vision platform designed for high-performance operation and enhanced situational awareness.

About Astra Night Vision

Astra Night Vision develops advanced digital night vision technology with a focus on ultra-low latency, high sensitivity, high image clarity, wide situational awareness, and practical digital functionality. The company is developing some of the most advanced digital night vision innovations to deliver digital performance increasingly on par with traditional analog systems, while adding modern capabilities that make digital night vision more useful and practical in the field.

Visit Astra Night Vision — Booth 40828
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Learn more at AstraNV.com

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