



THE FUTURE
OF OPTICS



6TH

GENERATION

SHARPER, SMARTER, STRONGER



FUSION OF TECHNOLOGIES FOR CLARITY IN EVERY SPECTRUM

Binox 6 Dual

MULTISPECTRAL
BINOCULARS

4-IN-1 DAY, NIGHT, TWILIGHT & THERMAL VISION WITH BUILT-IN LASER RANGEFINDER

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Binox 6 Dual

PRODUCT OVERVIEW



VERSATILITY IN YOUR HANDS

Engineered for those who demand uninterrupted situational awareness in every environment, the **ATN Binox 6 Dual** delivers professional-grade imaging in one intuitive, ultra-compact device. Whether you are glassing ridge lines at first light, scouting timber for hogs, or guiding search-and-rescue teams through darkness and fog, it provides uncompromised clarity from dawn until well after dusk.

At its core is ATN's **6th Generation thermal engine**, the most powerful we have ever built. Featuring a **12 μm VOx sensor** available in three configurations — **256×192 with ≤ 20 mK sensitivity**, **384×288 with ≤ 15 mK sensitivity**, and **640×512 with ≤ 15 mK sensitivity** — it delivers outstanding thermal clarity and reliable heat detection across a wide range of conditions. A **high-transmission germanium lens** and **Wide Dynamic Range processing** reveal the smallest heat signatures through dense brush, smoke, or low-contrast scenes. Daylight imagery comes alive on a **1.8" 4K (3840×2160) CMOS sensor**, and when darkness falls, the **built-in IR illuminator** extends visibility to 350 m without compromising stealth.

For even greater versatility, the Binox 6 Dual includes **Picture-in-Picture** and **Dual-View Switching technology**, allowing you to zoom in on thermal targets while maintaining a wide field of view, or switch seamlessly between **thermal, daytime, and night vision modes**. This flexibility ensures you're always using the best imaging mode for the conditions, whether spotting wildlife, coordinating a rescue, or tracking movement in tactical environments.

To push visual performance further, we integrated **SharpIR® AI-enhanced imaging technology**, which dynamically sharpens your view in real time. It boosts contrast, edge clarity, and target definition, giving you crisp visuals even in cluttered environments. Combined with a **0.49" OLED display** running at a **smooth 50 Hz** and **1920×1080 resolution**, the Binox 6 Dual delivers lifelike motion and reduced eye fatigue.

Despite its advanced capabilities, **the magnesium alloy housing** keeps weight under **1.62 lbs**, making it lightweight yet rugged enough for the harshest conditions. A **standard tripod mount** adds stability for extended observation sessions.

An **integrated 1,000-yard laser rangefinder (± 1 m)** delivers precise distance data with speed and confidence. For hunters, it means dialing in shot placement for ethical, one-shot kills. For search-and-rescue teams, it enables accurate coordinate relays to ground crews or aerial units. Law enforcement professionals can quickly establish standoff distances or mark perimeters in tactical situations, while boaters and industrial users rely on it to gauge approach distances and plan safe routes or inspection zones.

With **onboard 64 GB of internal storage**, **4K daytime recording**, **1080p thermal recording**, and **built-in Wi-Fi**, the Binox 6 Dual makes it easy to capture and access everything you see in the field. You can **stream directly to your phone or tablet** for instant viewing, file transfer, or playback. Whether you are reviewing a successful shot, documenting rare wildlife, logging inspections, or capturing a nighttime encounter, your footage is always ready to review, share, or archive.

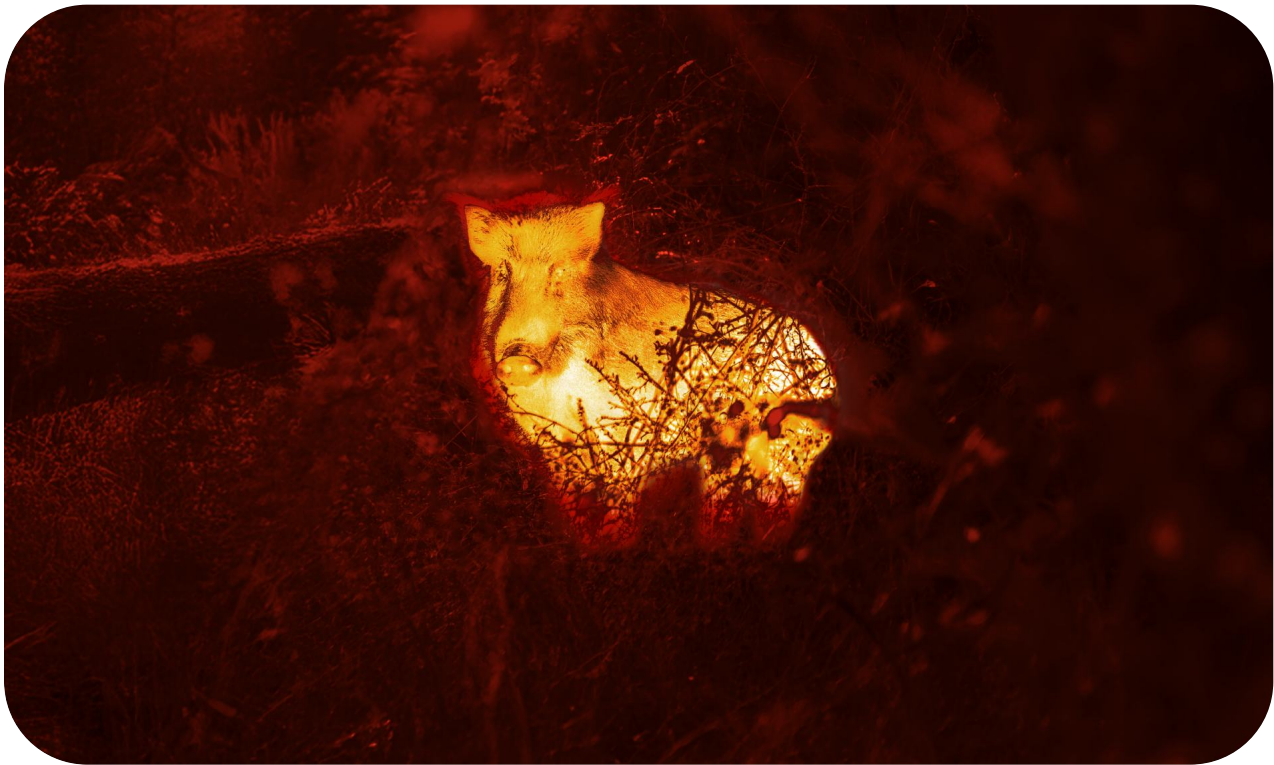
Smart IR, **Hot-Point Detection**, **DeFOG**, and **Step+Smooth Zoom** add even more adaptability, while **adjustable interpupillary spacing** and the **cinematic OLED display** provide a comfortable and immersive viewing experience during extended use.

Now backed by a **5-year warranty**, because we know our products are built to perform — and built to last.

When every second counts and every shadow tells a story, the Binox 6 Dual puts the unseen world at your fingertips and gives you the vision to move forward with absolute confidence.

FEATURES

THERMAL PERFORMANCE & IMAGE CLARITY



ULTRA-SENSITIVE THERMALS | Detect Farther, See Clearer, React Faster

At the core of the Binox 6 Dual is ATN's most advanced thermal system to date, a 6th Generation engine built around a 12 μm VOx uncooled focal plane array with exceptional sensitivity. Available in 256×192 (≤ 20 mK) or 384×288 and 640×512 (≤ 15 mK), each sensor configuration delivers sharp thermal imaging with smooth 50 Hz refresh rates and is optimized for different operational needs. These high and ultra-sensitive NETD ratings allow the system to detect even the smallest temperature differences, resulting in stronger contrast, clearer targets, and improved visibility through smoke, fog, or dense cover.

The 256×192 model offers enhanced sensitivity and dependable detection in a compact, power-efficient package, making it ideal for general users who need reliable thermal performance across varied environments. The 384×288 model provides higher detail and extended range, striking a balance of versatility for hunters, land managers, and tactical teams. For professionals demanding maximum clarity and long-range identification, the 640×512 model delivers superior thermal definition and target recognition. All variants are paired with high-transmission germanium lenses and advanced image processing to ensure crisp, high-contrast visuals. No matter your mission, there is a configuration designed to meet it.

SHARPIR® AI-IMAGE ENHANCEMENT | Smarter, Sharper, Deadlier

Powered by ATN's proprietary SharpIR® technology, the Binox 6 Dual uses advanced AI algorithms to enhance image sharpness and clarity in real time. This dynamic processing improves edge definition and target contrast, making it easier to identify heat signatures in cluttered or low-visibility environments. Imagine spotting a coyote slipping through brush at dusk or picking out hogs hidden in tall grass—SharpIR turns indistinct blobs of heat into defined shapes and movements. You are not just seeing heat, you are seeing clarity that lets you act faster and smarter.



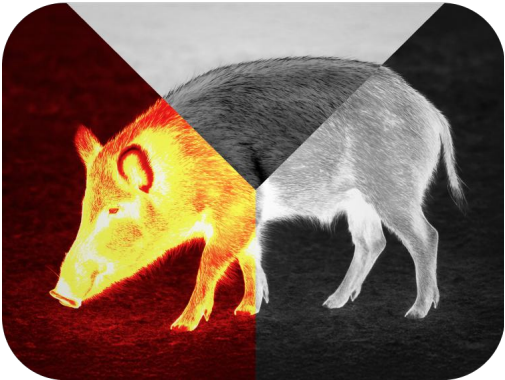
WIDE DYNAMIC RANGE | Clearer Images in Every Scene

The Wide Dynamic Range (WDR) feature helps you see more detail in both hot and cold areas of your thermal image. In many thermal systems, extremely hot objects can overpower the view and wash out cooler areas. WDR balances the image so nothing important is lost. That means animals hiding behind cover, people standing in the shade, or cooler sections of terrain and equipment stay visible and clear. Whether you are tracking movement, scanning a landscape, or inspecting gear, WDR ensures you always get the full picture.



COLOR MODES FOR EVERY CONDITION | Spot Faster, Scan Smarter

The Binox 6 Dual offers six thermal color palettes to match your environment and mission needs: White Hot, Black Hot, Iron Red, Alarm, Green Hot, and Sepia. White Hot and Black Hot provide clean, high-contrast imaging that is ideal for general detection and tracking. Iron Red enhances heat intensity for faster identification of animals or threats against complex backgrounds. Alarm mode flags the hottest points in view for instant recognition of critical heat sources. Green Hot and Sepia reduce eye fatigue during prolonged use, making them well-suited for long hunts or extended surveillance. Whatever the task, the right palette gives you immediate clarity and an operational edge.



DUAL VIEW SWITCHING | Two Perspectives, One Screen

With Dual View Switching, the Binox 6 Dual lets you display thermal imaging alongside a daytime, night vision, or twilight view on the same screen. This flexibility allows you to choose whether thermal is your primary image or inset in a secondary window, giving you the best of both worlds. Hunters can track heat signatures while maintaining full visual context of terrain, SAR teams can monitor thermal hotspots without losing daylight situational awareness, and law enforcement can identify threats faster by combining visual and thermal confirmation. It's versatility that keeps you in control, no matter the mission.



HOT POINT TRACKING | No Heat Left Behind

When speed and clarity matter most, the Hot Point Tracking feature automatically highlights the hottest object in view. This makes it simple to spot game animals moving through brush, locate people in search operations, or identify equipment hotspots in challenging environments. For hunters, SAR teams, law enforcement, and industrial professionals alike, this feature ensures that the target stands out even in the busiest or most chaotic scenes.



DAY/NIGHT CMOS SENSOR PERFORMANCE

ULTRA HD CMOS SENSOR | Clarity Day or Night

The Binox 6 Dual is equipped with a large 1.8" CMOS sensor that delivers Ultra HD 4K resolution (3840×2160). Daytime visuals are rich, detailed, and vibrant, rivaling the performance of high-end optics and digital cameras. When the sun sets, Night Vision Mode engages, activating the onboard IR illuminator to provide clear visibility out to 400 meters in total darkness. From the brightest daylight to pitch-black conditions, the Binox 6 Dual keeps your view sharp and your awareness constant.



4-IN-1 VISION MODES | One Optic, Every Condition

With the Binox 6 Dual, you never need to swap gear or carry multiple optics. Four integrated modes—Day, Night, Thermal, and Twilight—give you unmatched adaptability. Use full-color 4K during the day for detailed long-range viewing. Switch to Night Mode after sunset and activate the IR illuminator for stealthy observation in darkness. Thermal Mode lets you cut through brush, fog, or blackouts to detect heat signatures instantly. Twilight Mode bridges the gap at dawn and dusk, keeping contrast and clarity intact when light is low but not gone. Whatever the environment, this system adapts instantly to keep you prepared.



SMART IR ILLUMINATION | Light When You Need It

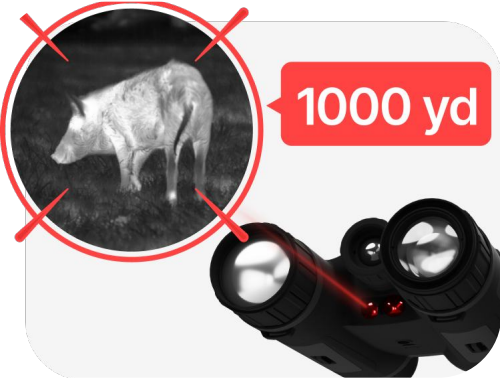
The onboard IR illuminator is enhanced with Smart IR technology, which automatically adjusts brightness based on your surroundings. This prevents wasted power, reduces unnecessary glare, and maintains stealth. Whether you are scanning an open field, moving through dense forest, or operating indoors, Smart IR delivers the right level of illumination without manual adjustments.



RANGEFINDING & PRECISION TOOLS

INTEGRATED LASER RANGEFINDER | Know Your Distance, Own the Shot

The Binox 6 Dual comes equipped with a built-in laser rangefinder that measures distances up to 1,000 yards with ±1 m accuracy. Instant range data gives hunters confidence in ethical shot placement, provides SAR teams with precise coordinates for ground or aerial units, and allows law enforcement to establish standoff distances or secure perimeters. Boaters and industrial users can also rely on it to gauge approach distances and plan safe routes. Having rangefinding built into your binoculars means no extra devices, no added weight, and no hesitation.



RECORDING, CONNECTIVITY & STORAGE

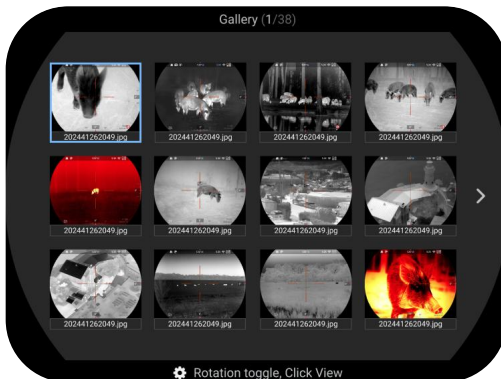
ONBOARD RECORDING | Capture It, Keep It, Share It

With 64 GB of onboard storage, the Binox 6 Dual allows you to record 4K daytime and 1080p thermal video directly to the device. There is no need for external memory cards or recorders. Hunters can replay a perfect shot, outdoor enthusiasts can document rare wildlife encounters, and professionals can log inspections or nighttime missions with ease.



INTERNAL GALLERY | Instant Playback in the Field

Access your videos and images immediately on the device. Check shot placement, confirm identification, or replay a critical moment without needing to connect to a phone, computer, or external monitor.



BUILT-IN WI-FI | Instant Access Anywhere

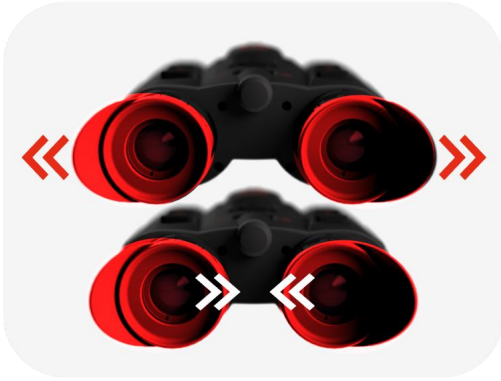
The Binox 6 Dual includes built-in Wi-Fi connectivity, allowing you to connect directly to your smartphone or tablet with the ATN Connect 6 app. Stream live video, transfer files, manage your gallery, or share footage instantly from the field. Whether you are hunting, camping, or on a mission, your content is always accessible and ready.



EASE OF USE & CONTROL

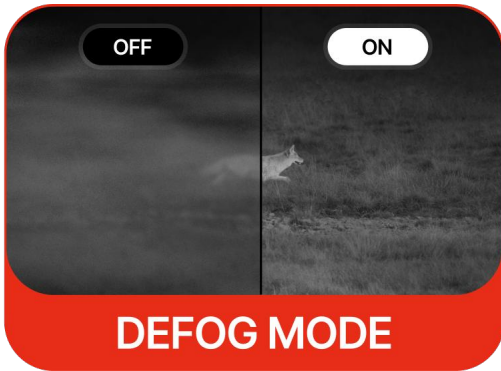
ADJUSTABLE EYEPIECES | Built for Every Set of Eyes

The Binox 6 Dual features an adjustable interpupillary distance range of 60–74 mm and a 15 mm eye relief, making it comfortable and clear for a wide range of users. Whether glassing solo or passing the unit between teammates, the setup is designed for flexibility and long viewing sessions.



DEFOG MODE | Maintain Clarity Through the Elements

When fog, mist, or thermal bloom threaten to reduce visibility, DeFOG mode automatically enhances contrast and sharpness. Ideal for early mornings, coastal regions, or humid valleys, this mode keeps your thermal images usable and clear when you need them most.



FIELD-READY DESIGN



RUGGED HOUSING | Built for the Field

The Binox 6 Dual is built for real-world use with a lightweight magnesium alloy body that is both rugged and durable. Its construction is impact-resistant, dustproof, and IP67-rated waterproof, ready to handle rain, mud, and demanding terrain without compromise. Hunters, law enforcement, SAR teams, and outdoor professionals can rely on its toughness and reduced weight for long missions, knowing it is engineered to perform wherever the mission takes them.





RUNTIME YOU CAN COUNT ON | Power That Lasts When It Matters

Powered by two replaceable 18650 rechargeable batteries, the Binox 6 Dual delivers up to 8 hours of continuous operation per charge. For extended use, the USB-C port supports external power banks, ensuring uninterrupted performance during multi-day hunts, patrols, or expeditions.



INCLUDED IN THE BOX



ATN Binox 6 Dual



Portable Bag



18650 Battery × 2



Data Cable



Neck Strap



Lens Cleaning Cloth



Quick Start Guide
User Manual



Lens Cap



18650 Battery
Charger

THE POWER BEHIND 6th GENERATION



SHARPER:

At the heart of 6th Generation is ATN's revolutionary, proprietary SharpIR® AI-enhancement — redefining what thermal clarity can be. This cutting-edge technology scans and optimizes every pixel in real time, sharpening heat signatures with unmatched precision.

The result? You see more. Faster. Farther. And with detail that was once impossible.

SMARTER:

Built on a next-gen processing platform and powered by state-of-the-art components, 6th Generation unlocks the next wave of intelligent features and adaptive performance — designed to meet the evolving demands of modern hunters, professionals, and tactical operators.

It works as smart as you do — giving you the edge when it counts.

STRONGER:

6th Generation represents a major leap in rugged durability and long-term reliability. With improved thermal regulation, upgraded high-transmission optics, lower power draw, and quick responsiveness — all wrapped in a hardened, shockproof housing built for field abuse.

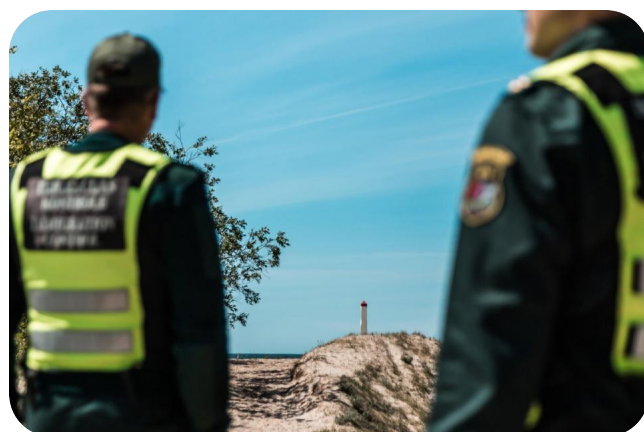
This isn't just progress. It's what we do best.

BUILT FOR THIS:



PREDATOR & NUISANCE HUNTING

The BINOX 6 DUAL gives hunters a serious edge when dealing with nocturnal or evasive species like hogs, coyotes, and varmints. With thermal, night vision, and 4K daytime optics all in one unit, you can track movement, confirm targets, and range distance in any light or terrain. Whether you're protecting livestock, managing invasive populations, or scanning fields at first or last light, the multispectral view helps you detect heat through thick brush, fog, or total darkness—so you never lose sight of what matters.



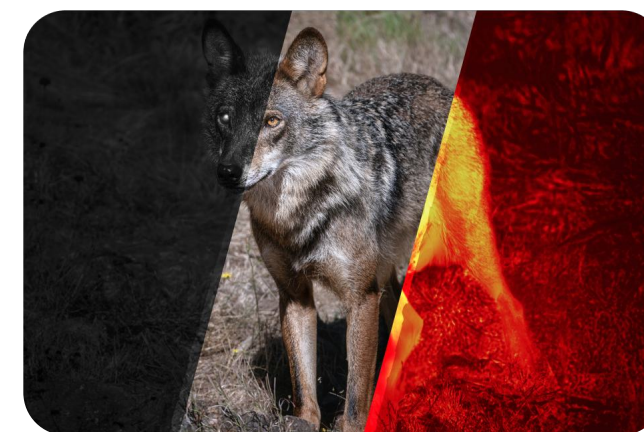
TACTICAL & LAW ENFORCEMENT

Designed for real-world operations, the BINOX-6 delivers mission-ready performance for patrol officers, tactical teams, and perimeter security units. Thermal imaging cuts through darkness, smoke, and barriers—exposing heat signatures and hidden movement when standard optics fall short. The integrated laser rangefinder provides instant distance feedback, while night vision mode ensures visual clarity in blackout conditions. Whether you're conducting surveillance, securing a perimeter, or tracking suspects, this system keeps your team one step ahead—day or night.



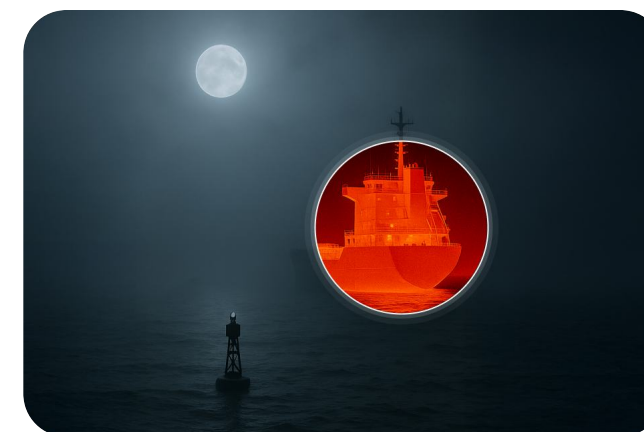
SEARCH & RESCUE OPERATIONS

When lives are on the line, visibility is everything. The BINOX-6 helps SAR teams locate missing persons quickly and safely—even in rugged terrain, dense forests, or low-light conditions. Its thermal engine detects body heat through heavy vegetation, while Hot Point Tracking highlights targets instantly. DeFOG mode improves contrast in mist, smoke, or coastal haze, and the integrated rangefinder helps guide responders directly to their objective—reducing time, uncertainty, and risk during critical operations.



WILDLIFE OBSERVATION & CONSERVATION

For wildlife professionals and outdoor enthusiasts alike, the BINOX-6 offers a powerful, non-intrusive way to observe animals in their natural habitat. Capture crystal-clear 4K daytime footage, or monitor behavior with thermal imaging at dawn, dusk, or during nighttime activity. Whether you're studying animal patterns, identifying nesting areas, or documenting rare species, this system delivers clear, detailed visuals without disturbing the scene—making it a valuable tool for conservation and research work.



MARITIME & LOW-LIGHT NAVIGATION

On the water, low visibility can quickly become high risk. The BINOX-6 helps boaters and maritime crews safely navigate early mornings, night runs, or foggy conditions with enhanced thermal and night vision capabilities. Spot floating hazards, buoys, shoreline structures, or other vessels even in complete darkness. With IP67-rated waterproof construction and long battery life, it's built to perform in the harshest marine environments—providing peace of mind and visual control no matter the conditions.

SPECIFICATIONS 1/2

THERMAL	MODEL	256-4K	384-4K	640-4K
	Detector Type	12μm VOx Uncooled Focal Plane Array		
	Thermal Sensor Resolution	256×192	384×288	640×512
	Refresh Rate	50 Hz		
	Thermal Sensitivity (NETD)	≤20mK	≤15mK	≤15mK
	SharpIR®	Yes		
	Non-Uniformity Correction (NUC)	Auto / Semi Auto / Manual		
	Thermal Lens System	25 mm; F/0.9	35 mm; F/0.9	35 mm (Ge); F/1.0
	Thermal Field of View (HxV)	7.0° × 5.3°	7.53° × 5.65°	12.52° × 9.41°
	Focus Mechanism	Manual, Front Lens Adjustment		
	Magnification	6-48x	5.5-44x	3-24x
	Digital Zoom	1x, 2x, 4x, 8x		
	Minimum Focus Distance	3 m	5 m	5 m
	Detection Range	1500 m	2750 m	3100 m
	Color Palettes	White Hot, Black Hot, Iron Red, Alarm, Green Hot, Sepia		
	Wide Dynamic Range	Yes		
CMOS	Day/Night Sensor Type	1.8" CMOS Sensor		
	Sensor Resolution	3840×2160 Ultra HD (4K)		
	Day Lens System	55 mm; F/2.0		
	Day Lens Field of View (HxV)	8.0° × 4.5°		
	Focus Mechanism	Manual, Front Lens Adjustment		
	Magnification	5.5-44×		
	Night Vision Mode	Yes		
	Twilight Mode	Yes		
	Smart IR	Yes		
	IR Illuminator	Yes		
	IR Illuminator Settings	Low, Medium, High		
	IR Illuminator Wavelength	850 nm / 940 nm		
	Replaceable IR Illuminator	Yes		
	Effective Distance at Night	400 m		

*Specifications subject to change without notice.

SPECIFICATIONS 2/2

GENERAL	MODEL	256-4K	384-4K	640-4K
	LRF Range	1000 m		
	LRF Accuracy	±1 m		
	LRF Laser Specs	905 nm, Class 1 (Eye Safe)		
	Display Resolution	0.49" OLED, 1920×1080 Resolution		
	Exit Pupil	20 mm		
	Eye Relief	15 mm		
	Diopter Adjustment Range	-5 to +5 D		
	Interpupillary Adjustment Range	60 mm to 74 mm		
	Internal Storage Capacity	64 GB		
	Picture-in-Picture (PIP)	Yes		
	Geomagnetic + Gyroscope	Yes		
	GPS	Yes		
	Compass	Yes		
	Video / Audio Recording	Yes		
	Image Capture	Yes		
	DeFog	Yes		
	Hot Point Tracking	Yes		
	Internal Gallery	Yes		
	Standby / Sleep Mode	Yes		
	Startup Time	<7 seconds (instant from Standby)		
	Media Output	USB Type-C		
	Built-in Wi-Fi (Hotspot)	Yes		
	App (Apple Store / Google Play)	Yes (ATN Connect 6 – iOS & Android)		
	Battery	2 × 18650 Rechargeable (Replaceable)		
	Battery Life	~8 hrs		
	Supports External Power Supply	Yes, USB Type-C (5 VDC / 2A)		
	Material	Magnesium Alloy		
	Weight	710 g	720 g	730 g
	Dimensions (L x W x H)	210×184.5×55 mm		
	Mounting	Standard Tripod Mount		
	Working Temperature	-30°C to 55°C		
	Waterproof / IP Rating	IP67		
	Warranty	5 years		

*Specifications subject to change without notice.