HRC50 Clip-on Thermal Weapon Sight

50 mm objective · with Applied Ballistics®



The HRC50 is designed for military and law enforcement applications requiring reliable thermal imaging at extended distances. Its 50 mm objective provides detection out to 1,847 meters, supporting long-range target acquisition, surveillance, and reconnaissance.

The HRC's unique performance comes from the combination of its high resolution 2K display, sub-4 µm display pixel pitch, integrated Applied Ballistics® calculator, and disturbed reticle. Together, these technologies enable advanced ballistic functionality with high-magnification day optics up to 30×, while keeping ballistic information clearly visible even at the highest magnification settings.

Constructed from durable, waterproof composite material and meeting or exceeding MIL-STD-810H requirements, the HRC50 is built for reliable operation in demanding field conditions.

Ultra-High 2K Display

Ultra-high 2K display resolution with sub-4µm pixel pitch for exceptional detail.

Works to 30× Day Optics

Works with day sights at magnification up to 30×, with ballistic data legible at the highest settings.

Integrated Applied Ballistics

Integrated Applied Ballistics calculator with a disturbed-reticle option.

Seamless Connectivity

Connects via low-power Bluetooth with compatible external weapon-mountable laser rangefinders (Envision MARS and Wilcox RAPTAR Xe, Maztech X4-LRF, etc.), Applied Ballistics Kestrel wind/weather instruments, and Ballistic Edition Garmin devices.

APPLICATIONS

Target Acquisition | Long-Range Precision | Surveillance | Reconnaissance | Dismounted Ops

RANGE PERFORMANCE

	STANDING MAN	VEHICLE
Detection range	**1,847 m / 6,060 ft**	**3,854 m / 12,644 ft**
Recognition range	**664 m / 2,178 ft**	**1,525 m / 5,003 ft**
Identification range	**348 m / 1,142 ft**	**795 m / 2,608 ft**

NOTE The DRI ranges presented in the specifications are conservative estimates. The real-life user experience can vary greatly.

THERMAL IMAGING

Sensor	**640×512 uncooled VOx FPA**
Pixel pitch	**12 µm**
Refresh rate	**60 Hz**
Spectral response	**7.5–13.5 µm**
Digital zoom	**2× / 4× / 8×**

OPTICS

Objective lens	**50 mm**
Field of view	**9° × 7°**
Optical magnification	**1×**

DISPLAY

Type	**OLED, B&W**
Resolution	**2048 × 1536**
Pixel pitch	**3.8 µm × 3.8 µm**

BALLISTICS & CONNECTIVITY*

Calculator	**Built-in Applied Ballistics + disturbed reticle**
Kestrel	**5700 / 5700x**
Garmin	**Tactix Delta/7 · Foretrex 701/901**
Envision	**MARS WMLRF**
Wilcox	**RAPTAR Xe WMLRF**
Maztech	**X4-LRF**

POWER

Batteries	**2× 18650 or 4× CR123**

MOUNT & PHYSICAL

Mount	**MIL-STD-1913 QR, single lever**
Optical axis height	**1.54" / 39 mm**
Weight	**815 g / 28.7 oz**
Size	**6.50 × 3.86 × 3.07 in / 165 × 98 × 78 mm**

ENVIRONMENT

Standard	**MIL-STD-810H**
Housing	**Waterproof · Black**

** N-Vision Optics constantly adds to the list of compatible devices.*

This equipment is export controlled and subject to the jurisdiction of the ITAR (22 CFR 120-130).
Specifications subject to change without notice.

N-VISION OPTICS

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APPLIED BALLISTICS

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