



# RAPTOR RQ50L

## Thermal Binocular

HIKMICRO RAPTOR series is a powerful and innovative handheld thermal and digital night vision binocular which adopts a 12  $\mu\text{m}$  infrared thermal sensor with NETD < 20 mK sensitivity, 2560  $\times$  1440 low illumination optical sensor with built-in adjustable IR illuminator, and a precise built-in laser rangefinder up to 1000 m measuring distance. It offers excellent image quality in true living color or thermal during day and night observation in adverse weather conditions with up to 2600 m detection range. The binocular is mainly applied for day & night observation, hunting, hiking, searching and rescuing.

### Key Features

- 640  $\times$  512 resolution with 12  $\mu\text{m}$  Thermal sensor
- High sensitivity thermal detector NETD < 20 mK (@25°C, F# = 1.0)
- Super large aperture f/0.9 thermal lens
- 2560  $\times$  1440 high resolution CMOS sensor
- Built-in 850 nm IR illuminator
- Laser rangefinder, 1000 m measuring distance (with an accuracy of  $\pm 1$  m)
- Thermal detection range up to 2600 m
- Support thermal mode, optical mode, and image fusion mode
- 1024  $\times$  768 resolution 0.39-inch OLED display
- Support PIP, GPS, DMC, Local Album, hotspot etc. intelligent features
- Support video & Snapshot recording, built-in EMMC (64 GB)

## Specification

| THERMAL MODULE                            |  |
|---|--|
| IMAGE SENSOR                              | VOx Uncooled Focal Plane Arrays                              |
| MAX. RESOLUTION                           | 640 × 512  |
| PIXEL INTERVAL                            | 12 μm  |
| NETD                                      | < 20 mk (@25°C, F# = 1.0)                                    |
| LENS (FOCAL LENGTH)                       | 50 mm  |
| APERTURE                                  | F0.9   |
| DIGITAL ZOOM                              | 1 ×, 2 ×, 4 ×, 8 ×, 16 ×                                     |
| MAGNIFICATION                             | 3.4 ×  |
| DETECTION RANGE                           | 2600 m   |
| MIN. FOCUSING DISTANCE                    | 5 m  |
| FOCUS MODE                                | manual   |
| FRAME RATE                                | 25 Hz  |
| FIELD OF VIEW(H × V),<br>DEGREES/M @100 M | 8.8° × 7.0° (H × V)/ 15.4 m × 12.2 m                         |
| OPTICAL MODULE                            |  |
| IMAGE SENSOR                              | 1.88" Progressive Scan CMOS                                  |
| MAX. RESOLUTION                           | 2560 × 1440  |
| FOCAL LENGTH                              | 31 mm  |
| APERTURE                                  | F1.2   |
| IMAGE ENHANCEMENT                         | YES  |
| MIN. ILLUMINATION                         | 0.001 lux @ (F1.0, AGC On)                                   |
| SMART IR                                  | YES  |
| IR ILLUMINATOR WAVELENGTH                 | 850 nm   |
| VIEWING RANGE AT NIGHT                    | 400 m  |
| IMAGE DISPLAY                             |  |
| DISPLAY                                   | 0.39 inch, OLED, 1024 × 768                                  |
| DIOPTR (RANGE)                            | -5 D to +3 D   |
| OPTICAL MODE                              | Day, Night, Auto, Defog                                      |
| FFC (FLAT FIELD CORRECTION)<br>MODE       | Auto, Manual, External Correction                            |
| IMAGE MODE                                | Optical, Fusion, White Hot, Black Hot, Red Hot, Image Fusion |
| IMAGE PRO                                 | YES  |

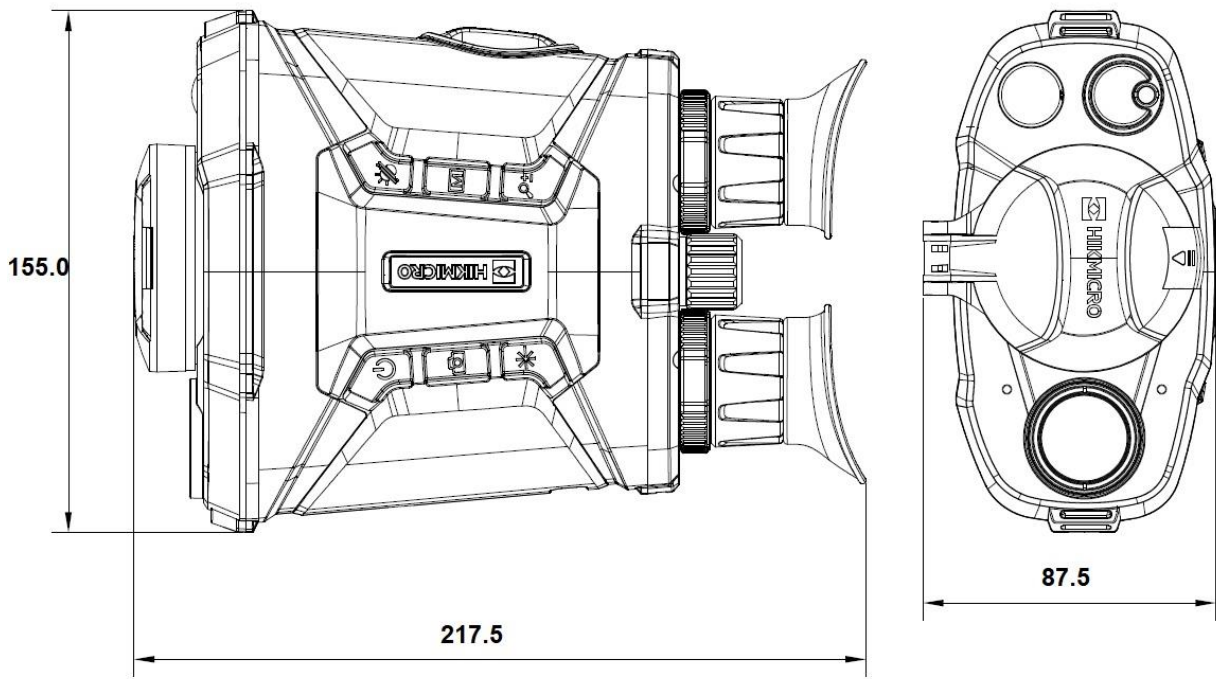
| SYSTEM                          |  |
|---------------------------------|--|
| BUILT-IN MEMORY                 | 64 GB  |
| MULTIPLE LANGUAGE               | YES  |
| AUDIO RECORDING                 | YES  |
| RECORD VIDEO                    | MP4, 1600 × 1200   |
| CAPTURE SNAPSHOT                | JPEG, 1600 × 1200  |
| LOCAL ALBUM                     | YES  |
| STANDBY MODE                    | YES  |
| PROXIMITY SENSOR                | YES  |
| HOTSPOT                         | YES  |
| HOT TRACK                       | YES  |
| GPS                             | YES  |
| DIGITAL MAGNETIC COMPASS        | YES  |
| SUPPORTED APPLICATION           | HIKMICRO Sight   |
| PIP                             | YES  |
| POWER SUPPLY                    |  |
| BATTERY TYPE                    | Replaceable and rechargeable Li-ion battery  |
| BATTERY OPERATING TIME          | 8 hours continuous running with hotspot function off (@25°C)   |
| TYPE-C POWER SUPPLY             | YES  |
| GENERAL                         |  |
| PROTECTION LEVEL                | IP67   |
| WORKING TEMPERATURE             | -30°C to 55°C  |
| WORKING HUMIDITY                | < 90%  |
| STORAGE TEMPERATURE             | -40°C to 70°C  |
| INTERPUPILLARY ADJUSTMENT RANGE | 60 mm to 70 mm   |
| EYE-RELIEF                      | 15 mm  |
| DIMENSION                       | 217.5 mm × 155.0 mm × 87.5 mm  |
| WEIGHT                          | 1120 g   |
| ACCESSORY                       | Battery Charger, Power Cable, Lens Cloth, Two Wrist Straps, Neck Strap, Quick Start Guide, Six Batteries, Adaptor, Carrying Case |
| MOUNTING ADAPTER                | 1/4"-20-UNC  |
| LASER RANGEFINDER               |  |
| MAX. MEASURING RANGE            | 1000 m   |

|                        |         |
|------------------------|---------|
| SAFETY CLASS FOR LASER | Class 1 |
| WAVELENGTH             | 905 nm  |
| MEASUREMENT ACCURACY   | ± 1 m   |

## Available Model

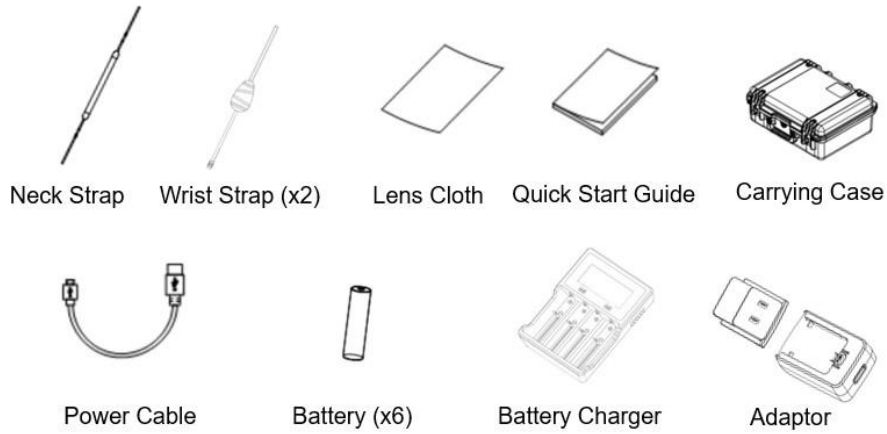
**HM-TS53-50QG/WLVE-RQ50L**

## Dimension



Unit: mm

## Accessories



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This section promotes the HIKMICRO SIGHT mobile application. On the left is the app's icon, which consists of a black square with a white stylized 'H' and a green square. Next to it is a smartphone displaying the app's interface. To the right are two QR codes for downloading the app. Above the left QR code is the "Download on the App Store" logo, and above the right QR code is the "GET IT ON Google Play" logo. Below the app icon and smartphone is the text "HIKMICRO SIGHT".

Three green shield-shaped icons representing product specifications. The first shield contains the text "BATTERY" at the top, a large "1" in the center, and "YEAR" at the bottom. The second shield contains "FULL PRODUCT" at the top, a large "3" in the center, and "YEARS" at the bottom. The third shield contains "DETECTOR" at the top, a large "10" in the center, and "YEARS" at the bottom.

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