



# RAPTOR RH50L

## 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

- 384  $\times$  288 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	V0x Uncooled Focal Plane Arrays
MAX. RESOLUTION	384 × 288
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	5.7 ×
DETECTION RANGE	2600 m
MIN. FOCUSING DISTANCE	5 m
FOCUS MODE	manual
FRAME RATE	25 Hz
FIELD OF VIEW(H × V), DEGREES/M @100 M	5.3° × 4.0° (H × V)/ 9.3 m × 7.0 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) MODE	Auto, Manual, External Correction
IMAGE MODE	Optical, Fusion, White Hot, Black Hot, Red Hot, Image Fusion
IMAGE PRO	YES

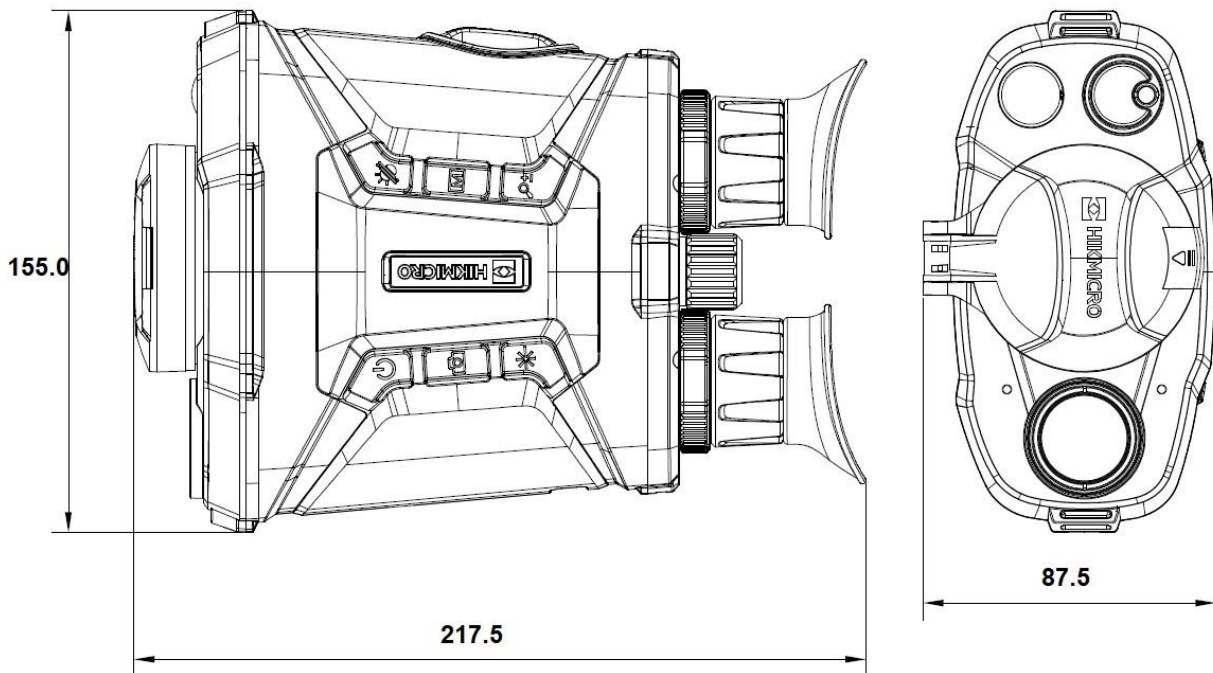
SYSTEM	
BUILT-IN MEMORY	64 GB
MULTIPLE LANGUAGE	YES
AUDIO RECORDING	YES
RECORD VIDEO	MP4, 1600 × 1200
CAPTURE SNAPSHOT	JPEG, 1600 × 1200
LOCAL ALBUM	YES
STANDBY MODE	YES
PROXIMITY SENSOR	YES
HOTSPOT	YES
HOT TRACK	YES
GPS	YES
DIGITAL MAGNETIC COMPASS	YES
SUPPORTED APPLICATION	HIKMICRO Sight
PIP	YES
POWER 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-RH50L**

## 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" above a large "1" and "YEAR" below it. The second shield contains "FULL PRODUCT" above a large "3" and "YEARS" below it. The third shield contains "DETECTOR" above a large "10" and "YEARS" below it.

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