

Product Datasheet - Technical Specifications



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TQ50CL 3.0

Thermal Monocular



HIKMICRO THUNDER TQ50CL 3.0 Thermal Monocular is equipped with an unparalleled powerful thermal detector, with higher sensitivity and the latest image processing algorithm, ensuring users catch the finest details no matter the weather or light conditions. With a 1920 × 1080 OLED larger display, THUNDER 3.0 provides a better visual experience.

Key Feature

- 640 × 512 resolution @12 μm thermal detector
- High sensitivity thermal module NETD < 15 mK (@25°C, F# = 1.0)
- 50 mm, F1.0 lens with detection range up to 2600 m
- 1920 × 1080 resolution 0.49-inch OLED display
- Built-in lens laser rangefinder up to 1000m, with ballistic calculation
- HIKMICRO Shutterless Image System (HSIS)
- Rechargeable and Replaceable Li-on Battery, 5h continuous operation
- High shock resistance up to 1000 g/0.4 ms

Specification

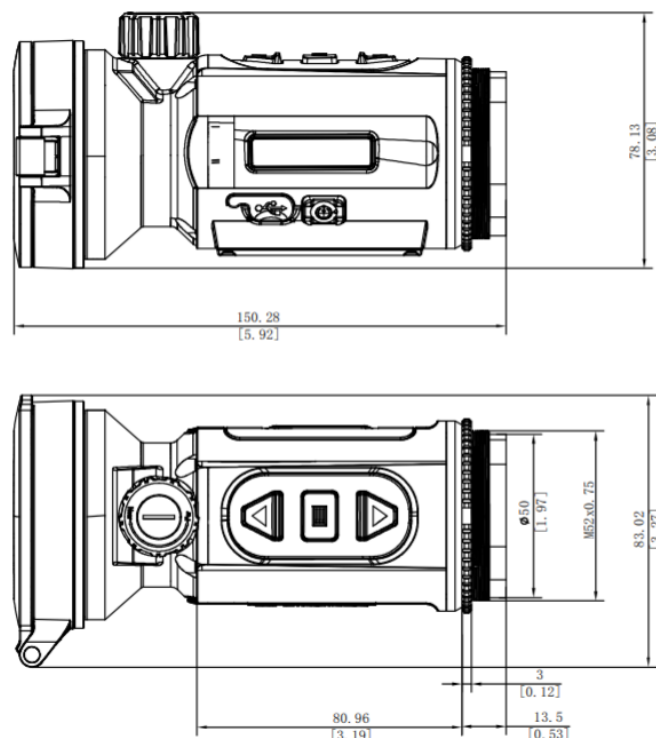
Thermal Module	
Image Sensor	Uncooled Focal Plane Arrays
Max. Resolution	640 × 512
Frame Rate	50 Hz
Pixel Interval	12 μm
Response Waveband	8 μm to 14 μm
Lens (Focal Length)	50 mm, F1.0
NETD	Less than 15 mK (@25 °C, F# = 1.0)
Detection Range	2600 m
Focus Mode	Focus Knob
Min. Focusing Distance	10 m
Magnification	1×
Field of View(H × V), Degrees / m @100m	8.8° × 7.0°/15.4 m × 12.3 m
Recommended Magnification of the Day Scope	1-15x
Image Display	
Display	1920 × 1080, 0.49 inch, OLED
Palettes	Black Hot, White Hot, Red Hot, Fusion, Red monochrome, Green monochrome
Exit Pupil	25 mm
Eye Relief	20 mm
Brightness Adjustment	Yes
Tone Adjustment	Cold, Warm
HSIS (HIKMICRO Shutterless Image System)	Yes
Image Pro 2.0	Yes
System	
Record Video	On-board Video Recording
Capture Snapshot	Yes
Virtual Reticle	Yes
Standby Mode	Yes
Storage	Built-in EMMC (64GB)
Hotspot	Yes
Hot Track	Yes
Reticle	No
Audio Recording	Yes
Recoil-activation Recording	Yes
Max. Recoil	1000 g/0.4 ms
Local Album	Yes
Image Calibration	Yes
Zeroing Profiles	5
Power Supply	
Battery Type	Replacable and Rechargeable Li-ion Battery Pack

Battery Operating Time	≥5h (25 °C, with hotspot off and LRF on)
Type-C Power Supply	5 VDC, 2 A Supports External Power Supply
General	
Protection Level	IP67
Dimension	150.3 mm × 83 mm × 78.1 mm
Weight	540 g with Battery
Working Temperature	-30°C to + 55°C (-22°F to 131°F)
Body Material	Body & Lens Cover: Magnesium Alloy
Laser Rangefinder	
Safety Class for Laser	Class 1
Wavelength	905 nm
Max. Measuring Range	1000 m
Measurement Accuracy	<300 m, ±1 m; >300 m, ±2 m
Min. Measuring Range	10 m
LRF Module in Lens	Yes

• Available Model

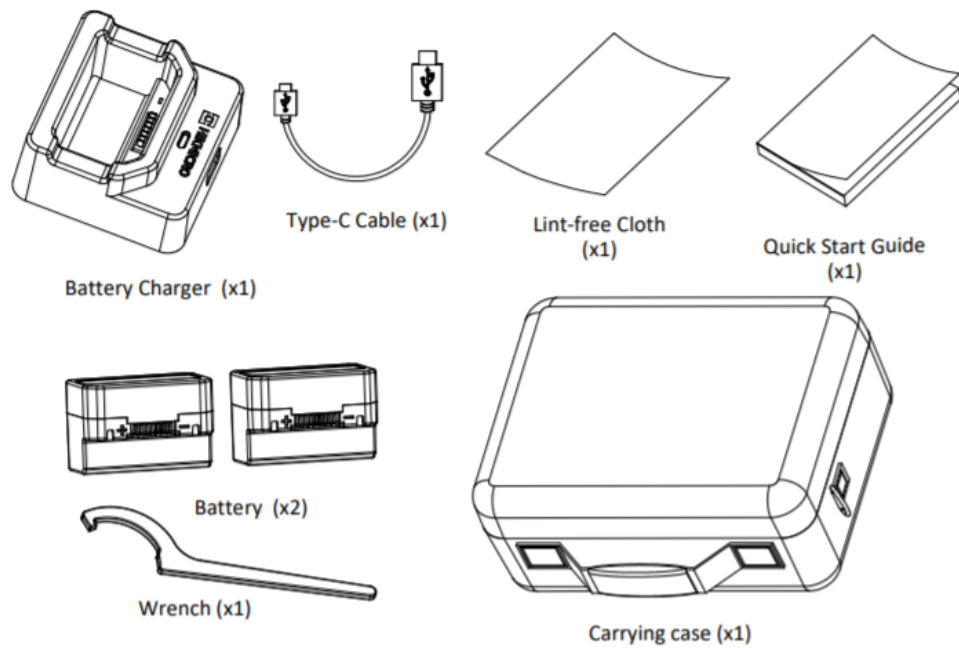
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• Dimension



Unit: mm[inch]

. Accessories



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