



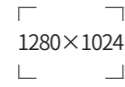
# Police Equipments Emergency Rescue Products

# LGC Series

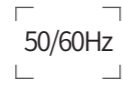
## Uncooled Thermal Imaging Module



12µm



High Resolution



High Frame Rate



Low Power Consumption



LGC Series Uncooled Thermal Imaging Module supports multiple resolutions of 1280×1024, 1024×768, and 640×512. Its high reliability can meet the applications requiring high reliability, such as vehicle equipment and gimbal system, and it can also be customized with more reliable specifications. It supports a variety of communication protocols, video output formats, and the optional multiple infrared lenses, meeting the demands of various applications.







### Specifications

Model	LGCS121	LGCT121	LGC6122
<b>Imaging Specifications</b>			
Detector Type	Uncooled VOx Microbolometer		
Array	1280×1024	1024×768	640×512
Pixel Pitch	12µm		
Spectral Band	8 ~ 14µm		
NETD	<40mK		
Frame Rate	30/60Hz(NTSC), 25/50Hz(PAL)		
Non-uniformity Correction	Support SBNUC and TECLESS		
Digital zoom	1.0~4.0× Continuous zoom		
OSD	Support		
MRTD	≤300mK		
Polarity	Black hot/white hot		
Palettes	Support		
Image Processing	Non-uniformity correction, time-domain filtering, digital detail enhancement		
<b>Optical Lenses</b>			
Focusing Type	Athermalized		
	Horizontal Field/Focal Length	Horizontal Field/Focal Length	Horizontal Field/Focal Length
	88°/10mm	70.4°/10mm	89°/4.1mm
	46.3°/19mm	37.1°/19mm	70°/5.8mm
	35.2°/25mm	28.2°/25mm	48°/9.1mm
	25.5°/35mm	0.1°/35mm	33°/13mm
	16°/55mm	12.8°/55mm	22°/19mm
	11.7°/75mm	9.4°/75mm	17°/25mm
			12.5°/35mm
			8°/55mm
			5.9°/75mm
			4.4°/100mm
Focusing Type	Continuous Optical zoom		
	Horizontal Field/Focal Length	Horizontal Field/Focal Length	Horizontal Field/Focal Length
	11.7°~35.2°/25~75mm	9.4°~28.2°/25~75mm	5.9°~17.6°/25~75mm
	5.9°~29.3°/30~150mm	4.7°~23.5°/30~150mm	4.4°~22°/20~100mm
			2.9°~14.7°/30~150mm
<b>Mechanical Specifications</b>			
Dimension (Lens and extension components are not included)	45×45×33.5mm		29.5×29.5×28mm
Weight (Lens and extension components are not included)	90g ± 3g		35g ± 3g
<b>Electrical Specifications</b>			
Focusing Type	3.9~5VDC, typical power supply 4VDC		
	5 ~ 18VDC, With user extension components, typical power supply 12V		
Power Consumption (Extension components are not included)	Min.1.8W	Min.1.6W	Min.1W
Video Channel	LVDS, 10/14bit Parallel digital video signals, PAL or NTSC		
	Extension components support LVDS/CML/ Camera link		
	Extension components support BT.1120		Extension components support BT.656
Control Channel	UART/RS-232		
Power Protection	User extension components support overvoltage, undervoltage, reverse connection		
<b>Environmental Specifications</b>			
Operating Temperature Range	-40°C ~ +80°C		
Storage Temperature Range	-50°C ~ +85°C		
Vibration Resistance	6.06g, Random vibration, all the axes		10.2g, Random vibration, all the axes
Shock Resistance	Half-sine wave, 80g, 6ms, 5 times per 3 axis and 6 directions		

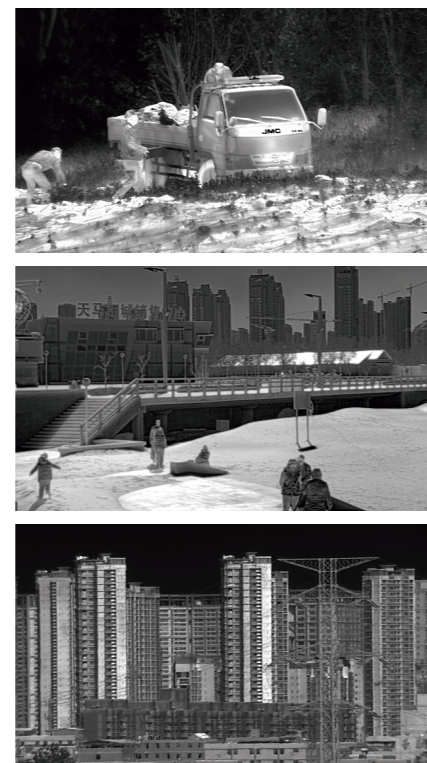


# Phoenix Series MWIR Cooled Thermal Imaging Module



-  Small Size
-  Clear Details
-  Low Noise
-  High-Quality Images
-  Low Power Consumption
-  Easy To Be Integrated

It is equipped with the MWIR cooled IRFPA detector. While providing clear images, it has stable performance and small size, easy to be integrated and convenient for secondary development. It supports a variety of communication protocols, video output formats, and the optional multiple infrared lenses, meeting the demands of various applications.



## Features

- NETD: NETD ≤ 25mK
- Small size, light weight, high stability
- Auto focus/optical zoom
- Rich interfaces and support customization

Model	FX640G	
<b>Performance Specifications</b>		
Detector Type	HgCdTe IDDCA	
Resolution	640 × 512	
Pixel Pitch	15μm	
Detector Frame Rate	50Hz	
Spectral Band	3.7~4.8μm	
NETD	≤ 25mK	
Cooling Time	≤ 7.5min	
<b>Image Adjustments</b>		
Brightness And Contrast Adjustment	Manual/Auto 0/Auto 1	
Polarity	Black hot/white hot	
Reticle	Display/Hide/Move	
Digital zoom	1.0-8.0 continuous zoom (Step size 0.1)	
Image Processing	Non-uniformity correction	
	Digital filtering noise reduction	
	Digital detail enhancement	
Mirror Image	Horizontal/Vertical/Diagonal mirror image	
<b>Power</b>		
Power Supply Range	20~36V DC	
Typical Power Voltage	24V DC	
Power Consumption@25°C/24V	Stable Consumption ≤ 16W	
<b>Interfaces</b>		
Video Output	Analog Video	PAL/NTSC
	Digital Video	Camera Link
Serial Communication Interface	RS 422	
External Clocking	RS 422/LVTTL (Optional)	
<b>Physical Characteristics</b>		
Weight	≤ 875g	
Dimension (mm)	146 × 71.6 × 86	
<b>Environmental Adaption</b>		
Operating Temperature	-40°C ~ +60°C	
Storage Temperature	-40°C ~ +70°C	
Humidity	5~95%, No condensation	
Vibration	20Hz~2000Hz, Random vibration 6.06g	
Shock	30g, 11ms, 3 times per axis and directions	



# Jerry-C Clip-on Thermal Imager



Clip-on fusion



Various Display Modes



Multiple Power Supplies



Quickly Installation

110g

Ultra-light And Portable



Brightness Self-adaptation



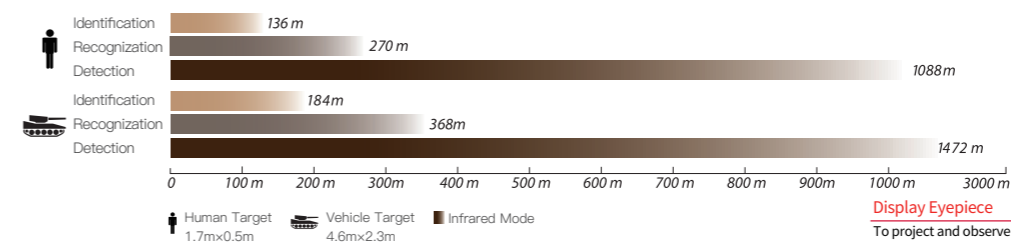
# Jerry-C Clip-on Thermal Imager

To make up for the limited performance of the low light level and low illumination night vision devices under the extreme environment, Jerry-C is a thermal imaging enhancement attachment designed for the rapid upgrade, front-fusion, and multi-mode display of equipment in service. It can enhance the user's night perception ability to ensure the absolute tactical advantages to priority identify the potential enemies.

## Specifications

Model	C5	C2	CE5	CE2
<b>Infrared Specifications</b>				
Resolution	640×512	384×288	640×512	384×288
Pixel Pitch	12μm			
Spectral Band	8~14μm			
<b>Optical Specifications</b>				
Lens Focal Length	f 11.52mm			
FOV	φ30.5°	φ20°	φ30.5°	φ20°
<b>Functions</b>				
Display Mode	White hot/Highlight/Outline			
Display Functions	Normally on/Breathing			
Brightness Adjustment	Support			
Auto Brightness	Support			
Shutter Correction	Support			
Contrast Adjustment	Support			
Threshold Adjustment	Support			
Menu rollover	Support			
<b>Interfaces</b>				
Data	RS232			
Video	PAL			
Power supply mode	17335\18650		External power supply (3-5.5V)	
<b>Environmental Adaption</b>				
Operating Temperature	-40°C~+60°C			
IP Encapsulation	IP67			
Weight	110g		78g	

## Operating Distance



## Features

- ❖ **Low loading, fast installing** Ultra-light weight pendant for fast front mounting
- ❖ **Fusion display, fast recognition** Direct fitting fusion without adjustment, various modes to improve the recognition effect
- ❖ **Multiple power supply** Support various batteries and external power supply



Low Light Mode



Highlight Mode



Outline Mode



**Display Eyepiece**  
To project and observe

**Brightness Impression**  
To detect the environment brightness

**Infrared Module**  
To capture thermal targets

**Controlling Knob**  
To operate and adjust



# Jerry-F Enhanced Night Vision Goggle

- Rapid Target Acquisition
- Multiple Fusion Modes Switchable
- 12µm Thermal Imaging
- Low Power Consumption
- Combat Information Input (HUD)
- Light Weight (360g)
- Extra Large Exit Pupil Diameter (15mm)



## Jerry-F Enhanced Night Vision Goggle

Jerry-F Enhanced Night Vision Goggle combines I<sup>2</sup> and thermal imaging technologies to make up for the shortcomings of the former in detecting targets, suitable for a wider range of applications. With corresponding sighting tools, the field of vision and the division of the sighting tool can be precisely matched to the image of Jerry-F, so as to realize the fast capture and concealed shooting of the target.

### Specifications

#### Product Specifications

Model: Jerry-F  
 Visual Amplification: 1×  
 Exit Pupil Diameter: 15mm  
 Exit Pupil Distance: 25mm  
 Diopter: -3.5~+2.5  
 Weight (Without Battery Pack): ≤360g  
 Operating Temperature: -40°C ~ +60°C  
 Battery Life (All Functions): ≥8h  
 Battery Life (I<sup>2</sup> Only): ≥60h  
 Display Mode: Black-hot/ White-hot/ Orange-hot, Outline, Target highlight, Breathing alert  
 Compass indication: Azimuth/ Pitch angle/ Inclination angle

#### I<sup>2</sup> Specifications

I<sup>2</sup> Focal Length: 25mm  
 Focal Length Range: 0.25m ~ +∞  
 I<sup>2</sup> FOV: 40°  
 Gain Adjustment: Support

#### Infrared Specifications

Detector: 12µm 640×512  
 Infrared Focal Length: 16mm  
 Infrared FOV: 25.9°×20.9°  
 Gain Adjustment: Support  
 Contrast Control: Support

#### Quick Removal Interface

Easily removed  
 Integration of power supply and holder

#### I<sup>2</sup>

Capture clear I<sup>2</sup> images

#### Infrared Fill-in Light

Adaptable to totally dark scenarios

#### Infrared

Capture clear thermal images

#### Data Interface

To debug the device and transmit video

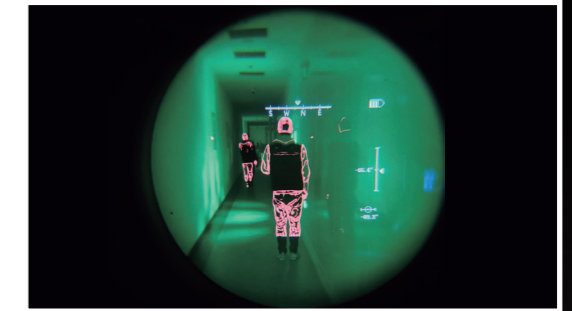
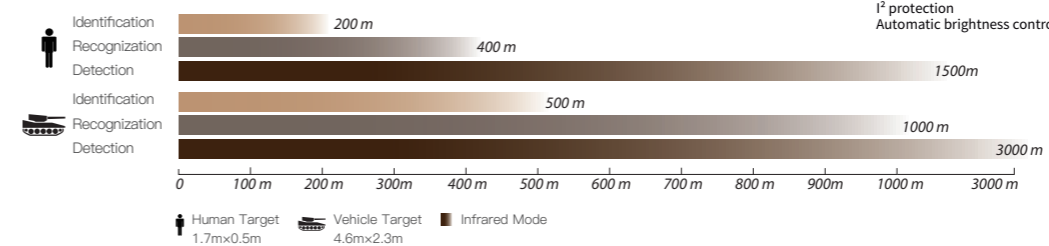
#### Ocular Lens

Extra large exit pupil diameter  
 Clear and stable field of view

#### Photosensitive Sensor

I<sup>2</sup> protection  
 Automatic brightness control

### Operating Distance



Outline Mode



Highlight Mode



PIP Mode



# Jerry-FB Enhanced Night Vision Binocular Goggle

- Binocular Three-dimensional Vision
- 3rd Generation High-definition I<sup>2</sup> Night Vision
- 12μm Thermal Imaging
- Rapid Target Acquisition
- Combat Information Input (HUD)
- Multiple Fusion Modes Switchable
- Extra Large Exit Pupil Diameter (14mm)



## Jerry-FB Enhanced Night Vision Binocular Goggle

Jerry-FB Enhanced Night Vision Binocular Goggle restores the three-dimensional perception of human eyes by its binocular design. Moreover, combined with thermal imaging technology, it makes up for the shortcomings of I<sup>2</sup> imaging in detecting targets, suitable for a wider range of applications. With corresponding sighting tools, the field of vision and the reticle of the sighting tool can be precisely matched to the image of Jerry-FB, so as to realize the fast capture and concealed shooting of the target.

### Specifications

#### Product Specifications

- Model: Jerry-FB
- Visual Amplification: 1×
- Exit Pupil Diameter: 14mm
- Exit Pupil Distance: 25mm
- Diopter: ±4°
- Weight (Without Battery Pack) ≤ 600g
- Operating Temperature: -40°C ~ +60°C
- Battery Life (All Functions): ≥ 6h
- Battery Life (I<sup>2</sup> Only): ≥ 50h
- Display Mode: Black-hot/White-hot, stroke, target enhancement, breathing alert

#### I<sup>2</sup> Specifications

- I<sup>2</sup> Focal Length: 25mm
- Focal Length Range: 0.25m ~ +∞
- I<sup>2</sup> FOV: 40°
- Gain Control: Support

#### Infrared Specifications

- Detector: 12μm 640×512
- Infrared Focal Length: 16mm
- Infrared FOV: 25.9°×20.9°
- Gain Control: Support
- Contrast Control: Support



PIP Mode



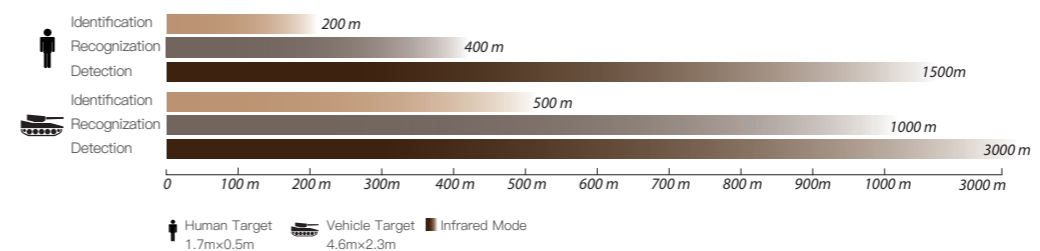
Rapid Target Acquisition Mode



Night Vision Enhancement Mode



### Operating Distance





# Tyke Series Thermal Scope

- Wireless Image Transmission
- Water And Dust Proof (IP67)
- Single Roller Operating
- Eye Cup Preventing Light Leaking
- Low Power Consumption
- Auto Zeroing
- Ultra-Far Vision
- High Reliability



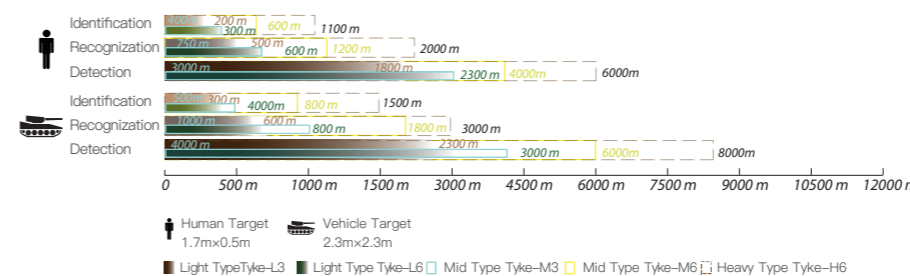
# Tyke Series Thermal Scope

Tyke Series Thermal Scope has light type (Tyke-L), mid type (Tyke-M), and heavy type (Tyke-H) to match firearms with different ranges. Among the products on same level, Tyke is small in size, light in weight, lower in power consumption, longer identifying distance, and higher reliability. With built-in image transmission module, it can be wirelessly connected with head-mounted devices for easy and hidden observing and shooting. The operation is simple and reliable, with automatic firearm calibration and probability ranging function.

## Specifications

Item	Light Type (Tyke-L)		Mid Type (Tyke-M)		Heavy Type (Tyke-H)	
	Tyke-L3	Tyke-L6	Tyke-M3	Tyke-M6	Tyke-H6	
Module	Resolution: 384×288 17μm	Resolution: 640×512 12μm	Resolution: 384×288 17μm	Resolution: 640×512 12μm	Resolution: 640×512 12μm	
	Spectral Band: 8~14μm	Spectral Band: 8~14μm	Spectral Band: 8~14μm	Spectral Band: 8~14μm	Spectral Band: 8~14μm	
	FOV: 14.9°×11.2°	FOV: 17.5°×14.0°	FOV: 8.3°×6.2°	FOV: 9.8°×7.8°	FOV: 4.9°×3.9°	
Display	0.38" OLED 800×600		0.5" OLED 800×600		0.5" OLED 800×600	
Eyepiece Diopter	-5~+3		-5~+5		-5~+5	
Exit Pupil Distance	30mm		43mm		43mm	
Power Supply	18650 battery*1		18650 battery*2		18650 battery*2	
Weight (With Battery)	≤0.4kg		≤0.7kg		≤0.9kg	
Battery Life	≥8h		≥20h		≥20h	
Dimension (With Eye Cup and Lens Hood)	190×76×82mm		181×73.5×105mm		215×100.5×105mm	
Interface	External Power Supply/Analog Video (PAL)/RS232/WIFI					
Operating Temperature	-40°C~+55°C					
Encapsulation	IP67					
Reliability	Shock 300g/4Hz, 6000 times		Shock 800g/10Hz, 12500 times		Shock 1200g/0.5Hz, 2500 times	
Human Target 1.7m×0.5m	Identification	200 m	300 m	400 m	600 m	1100 m
	Recognition	500 m	600 m	750 m	1200 m	2000 m
	Detection	1800 m	2300 m	3000 m	4000 m	6000 m
Vehicle Target 2.3m×2.3m	Identification	300 m	400 m	500 m	800 m	1500 m
	Recognition	600 m	800 m	1000 m	1800 m	3000 m
	Detection	2300 m	3000 m	4000 m	6000 m	8000 m

## Operating Distance



Infrared Mode



Infrared Mode



Infrared Mode

Objective Lens Component  
To acquire clear thermal images



Encoder Knob  
Select control menu

Focus Knob  
Get clear images

Picatinni Interface  
Standard interface of mounting on the firearm

Ocular Lens Component  
View infrared images on the screen



# Tyke-C Series Front-mounted Thermal Scope

- Quickly switch to night view mode
- Handheld observing
- Wireless Image Transmission
- Water And Dust Proof
- Single Roller Operating
- Low Power Consumption
- High Reliability



## Tyke-C Series Front-mounted Thermal Scope

Tyke-C Series Front-mounted Thermal Scope has light type (Tyke-CL) and heavy type (Tyke-CH). It can be mounted in front of the daylight scope to quickly switch to night view mode. With built-in image transmission module, it can be wirelessly connected with head-mounted devices for easy hidden observing and shooting.

### Specifications

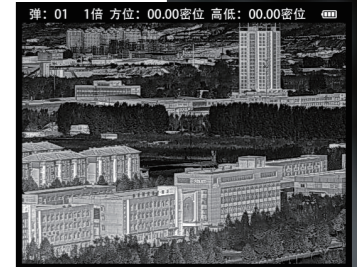
Item	Light Type (Tyke-CL)		Heavy Type (Tyke-CH)	
	Tyke-CL3	Tyke-CL6	Tyke-CH6	
Module	Resolution: 384×288 17μm Spectral Band: 8-14μm FOV: 14.9°×11.2°	Resolution: 640×512 12μm Spectral Band: 8-14μm FOV: 17.5°×14.0°	Resolution: 640×512 12μm Spectral Band: 8-14μm FOV: 4.9°×3.9°	
Display	0.38' OLED 800×600		0.5' OLED 800×600	
Power Supply	18650 battery*1		18650 battery*2	
Weight (With Battery)	≤0.45kg		≤0.98kg	
Battery Life	≥8h		≥20h	
Dimension(With Lens Hood)	115×78×85mm		135×80.5×122mm	
Interface	External Power Supply/Analog Video (PAL)/RS232/WIFI			
Operating Temperature	-40°C~+55°C			
Encapsulation	IP67			
Reliability	Shock 300g/4Hz, 6000 times		Shock 1200g/0.5Hz, 2500 times	
Human Target 1.7m×0.5m	Identification	200 m	300 m	1100 m
	Recognition	500 m	600 m	2000 m
	Detection	1800 m	2300 m	6000 m
Vehicle Target 2.3m×2.3m	Identification	300 m	400 m	1500 m
	Recognition	600 m	800 m	3000 m
	Detection	2300 m	3000 m	8000 m



Infrared Mode

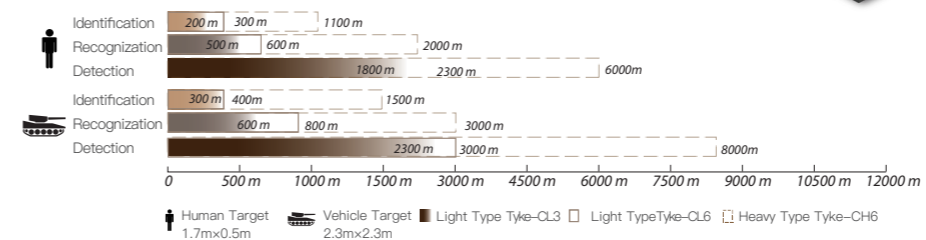


Infrared Mode



Infrared Mode

### Operating Distance





# Tom-B Five Optical Channels Multi-function Binoculars

- Four Optical Channels
- Image Fusion
- Multiple Functions
- Intelligent
- Light weight  $\leq 2.1\text{kg}$
- Long battery life  $\geq 8\text{h}$



## Tom-B Five Optical Channels Multi-function Binoculars

Tom-B Five Optical Channels Multi-function Binoculars is a small intelligent observation device integrating infrared, low-light, visible light and laser. It has built-in location module, digital magnetic compass, and laser range-finder. With image fusion function, it can be used for day and night observation and target search. The images and videos can be taken, and the information can be uploaded in time. It is comfortable and portable to use.

### Features

- Thermal Channel**  
Resolution:  $640 \times 512$ ,  $12\mu\text{m}$   
Spectral Band:  $8\sim 14\mu\text{m}$   
FOV:  $6.1^\circ \times 4.8^\circ$
- Color Day Channel**  
Resolution: 4.6 megapixels  
FOV:  $4.6^\circ \times 3.7^\circ$
- Low Light Level Channel**  
Resolution:  $750 \times 600$   
FOV:  $6.8^\circ \times 5.5^\circ$
- Laser Rangefinder**  
Eye Safe: 1535nm  
Max Measuring Range:  $\geq 6\text{km}$   
Measuring Accuracy: 2m
- Location Module**  
Location Mode: BD+GPS  
Horizontal Location Accuracy (CEP): 5m  
Elevation Location Accuracy (PE): 10m
- Digital Magnetic Compass**  
Azimuth Measurement Range:  $0^\circ \sim 360^\circ$   
Azimuth Measurement Accuracy:  $0.5^\circ(\text{RMS})$   
Pitch Angle Measurement Range:  $-90^\circ \sim +90^\circ$   
Pitch Angle Measurement Accuracy:  $0.4^\circ(\text{RMS})$   
Inclination Angle Measurement Range:  $-180^\circ \sim +180^\circ$   
Inclination Angle Measurement Accuracy:  $0.5^\circ(\text{RMS})$
- Laser Pointer**  
Wavelength: 830nm  
Security level: Class IIIA
- Display**  
 $1280 \times 1024$  OLED
- Storage**  
10000 BMP&4h AVI
- Ocular Lens Diopter**  
 $-4 \sim +4$
- Weight**  
 $\leq 2.1\text{kg}$  (With Battery)
- Operating Time**  
 $\geq 8\text{h}$
- Dimension**  
 $198 \times 210 \times 105\text{mm}$
- Interface**  
External Power Supply/USB/PAL/RS232  
HDMI  
WIFI
- Operating Temperature**  
 $-40^\circ\text{C} \sim +55^\circ\text{C}$
- Encapsulation**  
IP67



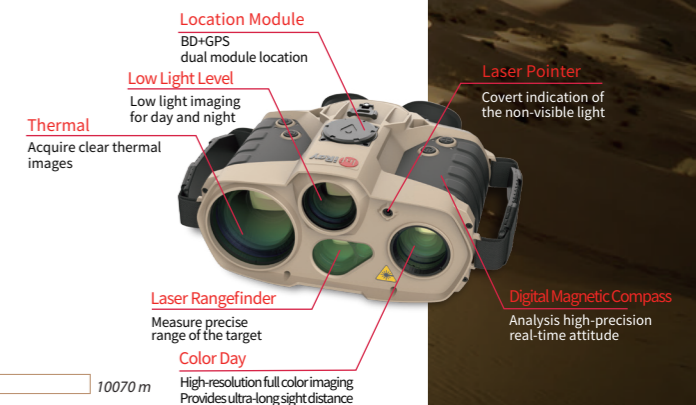
Daylight Mode



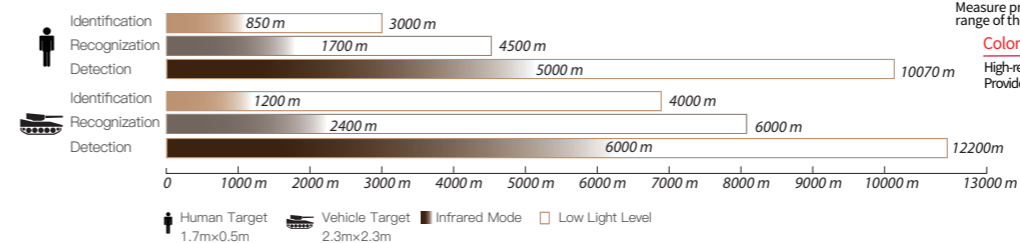
Thermal Mode



Low Light Mode



### Operating Distance





# Tom-E Four Optical Channels Multi-function Binoculars



Four Optical Channels



Small Size Cooled Thermal



Positioning System



Intelligent



Portable Weight (with battery)  $\leq 3\text{kg}$



Long Battery Life  $\geq 4\text{h}$



## Tom-E Four Optical Channels Multi-function Binoculars

Tom-E Four Optical Channels Multi-function Binoculars is composed of four optical channels and a positioning system. The optical channels include a cooled thermal channel, a low light level channel, an ultra-clear color day channel, and an eye-safe laser ranging channel. The location module, digital magnetic compass, laser rangefinder, and processing module constitute a positioning system, which can quickly and accurately perform its own and target locator, and collect and upload target information. While ensuring portability, it can also adapt to various complex climates and environments to complete mission goals.

### Features

- Thermal Channel**  
 Resolution:  $640 \times 512$ ,  $15\mu\text{m}$   
 Spectral Band: 3- $5\mu\text{m}$   
 FOV:  $9.1^\circ \times 7.3^\circ \sim 2.2^\circ \times 1.8^\circ$
- Color Day Channel**  
 Resolution: 5M pixels  
 FOV:  $12.5^\circ \times 10.0^\circ \sim 3.9^\circ \times 3.1^\circ$
- Low Light Level Channel**  
 Resolution:  $1280 \times 1024$   
 FOV:  $12.2^\circ \times 9.7^\circ$   
 Minimum Illumination: 0.001Lux
- Laser Rangefinder**  
 Eye Safe: 1535nm  
 Max Measuring Range:  $\geq 6\text{km}$   
 Measuring Accuracy: 2m
- Location Module**  
 Location Module: BD+GPS  
 Horizontal Location Accuracy (CEP): 3m  
 Elevation Location Accuracy (PE): 5m
- Digital Magnetic Compass**  
 Azimuth Measurement Range:  $0^\circ \sim 360^\circ$   
 Azimuth Measurement Accuracy:  $0.2^\circ(\text{RMS})$   
 Pitch Angle Measurement Range:  $-90^\circ \sim +90^\circ$   
 Pitch Angle Measurement Accuracy:  $0.2^\circ(\text{RMS})$   
 Inclination Angle Measurement Range:  $-180^\circ \sim +180^\circ$   
 Inclination Angle Measurement Accuracy:  $0.3^\circ(\text{RMS})$
- Laser Pointer**  
 Wavelength: 830nm  
 Security Level: Class IIIA
- Display**  
 $1280 \times 1024$  OLED
- Storage**  
 10000 JPG&4h AVI
- Ocular Lens Diopter**  
 $-4 \sim +4$
- Weight**  
 $\leq 3.0\text{kg}$  (with battery)
- Battery life**  
 $\geq 4\text{h}$
- Dimension**  
 $228 \times 283 \times 107\text{mm}$
- Interface**  
 External Power Supply/USB/PAL/RS232  
 HDMI  
 WIFI
- Operating Temperature**  
 $-40^\circ\text{C} \sim +55^\circ\text{C}$
- Encapsulation**  
 IP67



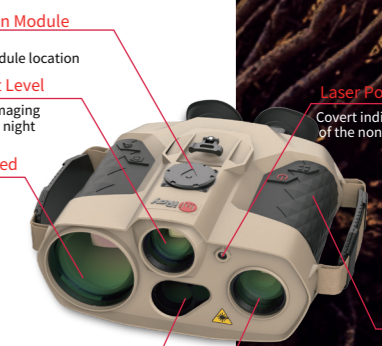
Color Day Mode



Thermal Mode



Low Light Mode



**Location Module**  
BD+GPS dual-module location

**Low Light Level**  
Low light imaging for day and night

**Cooled Infrared**  
Acquire clear thermal images

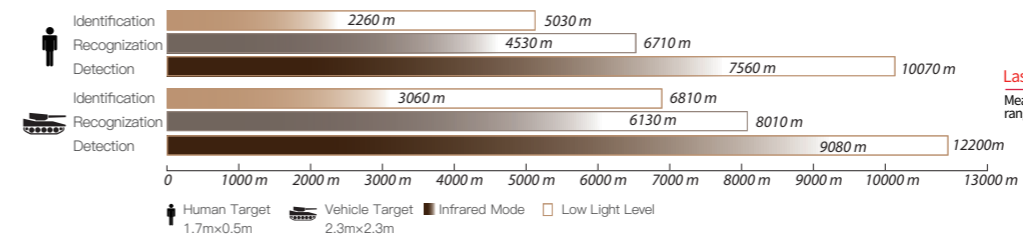
**Laser Pointer**  
Covert indication of the non-visible light

**Digital Magnetic Compass**  
Analysis high-precision real-time attitude

**Laser Rangefinder**  
Measure precise range of the target

**Color Day**  
High-resolution full color imaging

### Operating Distance





# Tom-HDB Multi-function HD Binoculars



HD thermal images



HD color day images



Target positioning system



Intelligent



Light weight



Long battery life



## Tom-HDB Multi-function HD Binoculars

Tom-HDB Multi-function HD Binoculars is composed of two HD optical channels. The color day channel has a resolution of 5-megapixel, and the thermal channel has a resolution of 1.3-megapixel. The built-in location module, digital magnetic compass, and laser rangefinder can quickly and accurately perform its own and target locator, and the target information acquisition and upload. It has small size and low power consumption and is adaptive to various complex climates and environments.

### Features

#### Thermal Channel

Resolution: 1280×1024, 12μm  
Spectral Band: 8~14μm  
FOV: 12.5°×10.0°

#### Color Day Channel

Resolution: 5 Mpixels  
FOV: 12.5°×10.0°~3.9°×3.1°

#### Laser Rangefinder

Eye Safe: 1535nm  
Max Measuring Range: ≥6km  
Measuring Accuracy: 2m

#### Location Module

Location Mode: BD+GPS  
Horizontal Location Accuracy (CEP): 3m  
Elevation Location Accuracy (PE): 5m

#### Digital Magnetic Compass

Azimuth Measurement Range: 0°~360°  
Azimuth Measurement Accuracy: 0.2°(RMS)  
Pitch Angle Measurement Range: -90°~+90°  
Pitch Angle Measurement Accuracy: 0.2°(RMS)  
Inclination Angle Measurement Range: -180°~+180°  
Inclination Angle Measurement Accuracy: 0.3°(RMS)

#### Display

1280×1024 OLED

#### Storage

10000 JPG&4h AVI

#### Ocular Lens

-4~+4

#### Weight

≤1.8kg (with battery))

#### Battery life

≥10h

#### Dimension

204×222×91mm

#### Interface

External Power Supply/USB/PAL/RS232  
HDMI  
WIFI

#### Operating Temperature

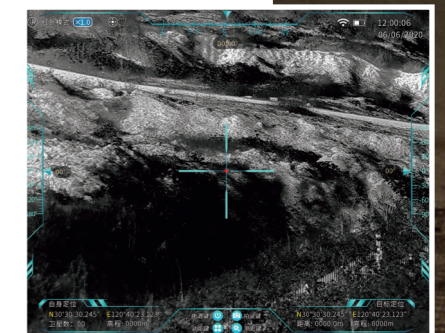
-40°C~+55°C

#### Encapsulation

IP67



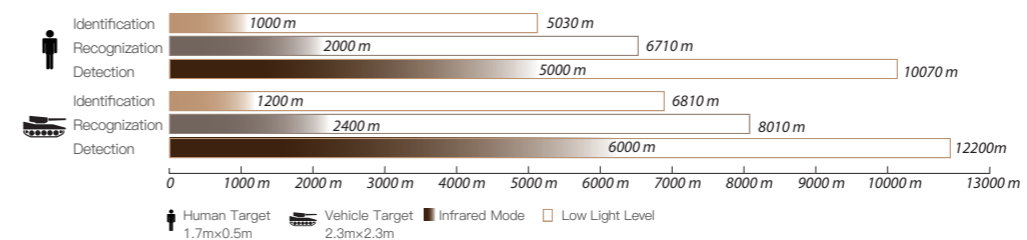
Color Day Mode



Thermal Mode



### Operating Distance





# SPIKE-A Photoelectric Reconnaissance and Surveillance System

- Unmanned Weapons Station
- Reconnaissance
- Force Protection
- Ballistic Calculation And Fire Control
- Target Search And Acquisition



## SPIKE-A Photoelectric Reconnaissance and Loading System

SPIKE-A Photoelectric Reconnaissance and Loading System is stabilized and can be operated by day and by night. Operational functions include surveillance, target identification and tracking. Ballistic calculations for shooting are programmed into the main computer unit, allowing improved shooting accuracy. It can be widely used in vehicle reconnaissance, force protection, maritime law enforcement, and other fields.

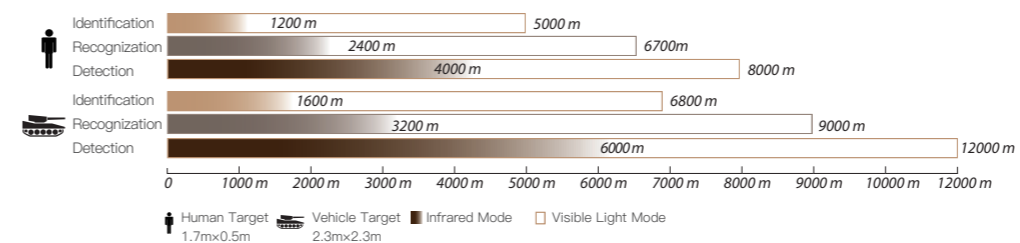
### Specifications

- Thermal Imaging**  
 Resolution: 1024×768 (640×512、1280×1024 optional)  
 Spectral Band: 8~14μm  
 Field of View: 30.0°×22.8°~7.0°×5.3°
- Low Light** Optional
- Visible Light**  
 Resolution: 1920×1080P 1/1.8" 2.7μm  
 Field of View: 9.9°×5.6°~3.1°×1.7°
- Laser Ranging**  
 Eye Safe Band: 1535nm  
 Max Measuring Range: 6km  
 Ranging Accuracy: 2m
- Operating Temperature**  
 -40°C~+55°C
- Encapsulation** IP67
- GPS**  
 GPS Mode: BD+GPS  
 Horizontal Positioning Accuracy (CEP): 3m  
 Elevation Positioning Accuracy (PE): 5m
- Electronic Compass**  
 Azimuth Measurement Range: 0°~360°  
 Azimuth Accuracy: 0.2°(RMS)  
 Inclination Angle Measurement Range: Pitch Angle-90°~90°, Roll Angle-180°~180°  
 Pitch Angle Accuracy: 0.2° (RMS)  
 Roll Angle Accuracy: 0.5° (RMS)
- Weight**  
 ≤9kg
- Dimension**  
 277×245×168mm
- Interface**  
 External Power Supply/SDI/CAMERALINK/PAL

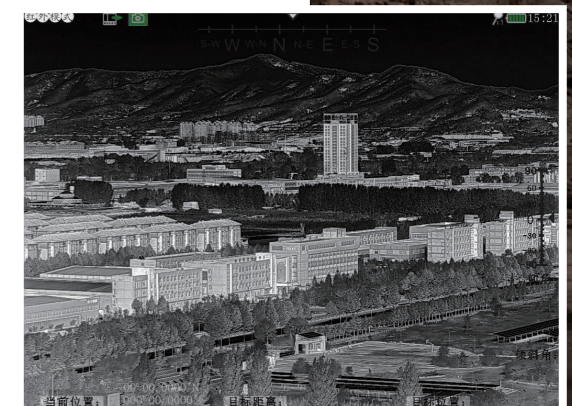
### Features

- High resolution large array 1024×768 12μm uncooled IRFPA detector
- Intelligent target recognizing and tracing
- Multiple sensors and accurate ballistic calculation
- Ultra-far and high accurate laser ranging

### Operating Distance



Visible Light Mode



Infrared Mode

**Visible Light**  
High-resolution full color imaging  
Provides ultra-long sight distance

**Infrared**  
Acquire clear thermal images

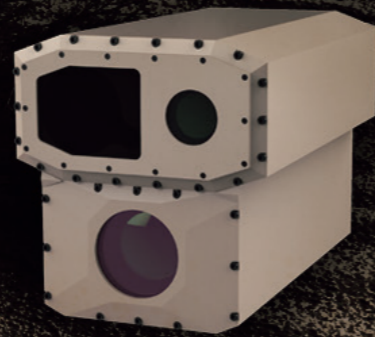


**Laser Rangefinder**  
Measure precise range of the target



# SPIKE-AC Cooled Photoelectric Reconnaissance and Surveillance System

- Unmanned Weapons Station
- Reconnaissance
- Force Protection
- Ballistic Calculation And Fire Control
- Target Search And Acquisition



## SPIKE-AC Cooled Photoelectric Reconnaissance and Loading System

SPIKE-AC Photoelectric Reconnaissance and Loading System is composed of cooled infrared thermal imager, global exposure CCD, ultra-long distance laser rangefinder, digital compass, and GPS/BD. It is mainly used for long-range target reconnaissance and attack. It is stabilized and can be operated by day and by night. Operational functions include surveillance, target identification and tracking. Ballistic calculations for shooting are programmed into the main computer unit, allowing improved shooting accuracy. It can be widely used in various fields, such as ground-maritime imaging and targeting systems, military reconnaissance, and anti-terrorism exercises.



Infrared Mode



Visible Light Mode

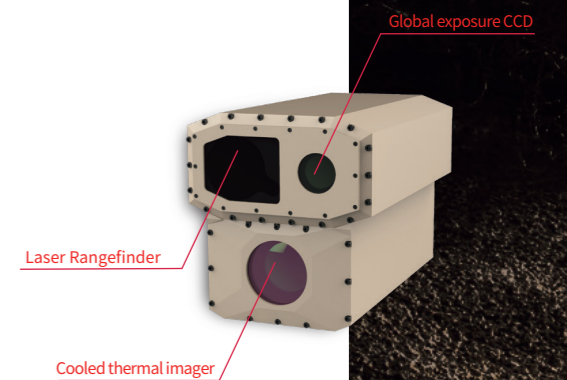
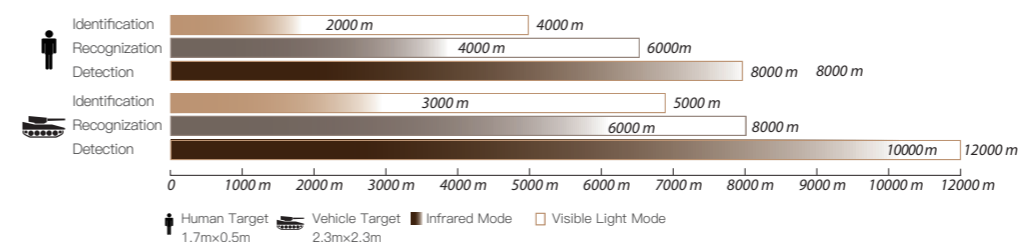
### Specifications

- Cooled Thermal Imaging**  
Resolution: 640×512  
Pixel pitch: 15μm  
Spectral Band: 3~5μm  
FOV: 18.2°×14.6°~2.3°×1.8°
- Electronic Compass**  
Azimuth Measurement Range: 0°~360°  
Azimuth Accuracy: 0.2°(RMS)  
Inclination Angle Measurement Range: Pitch Angle-90°~90°, Roll Angle-180°~180°  
Pitch Angle Accuracy: 0.2° (RMS)  
Roll Angle Accuracy: 0.5° (RMS)
- Visible Light**  
Resolution: 1980×1080P 1/1.8" 3.45μm  
Exposure mode: global shutter  
FOV: 45°×26.2°~3.8°×2.1°  
With optical fog transmission function
- Weight**  
≤7kg
- Low Light Optional**
- Dimension**  
298×180×215mm
- Laser Ranging**  
Eye Safe Band: 1535nm  
Max Measuring Range: 15km  
Ranging Accuracy: 2m
- Video Interface**  
SDI, CAMERALINK, PAL
- GPS**  
GPS Mode: BD+GPS  
Horizontal Positioning Accuracy(CEP): 3m  
Elevation Positioning Accuracy(PE): 5m
- Communication Interface**  
CAN2.0B/RS422/RS232
- External Power Supply**  
9-36V DC
- Operating Temperature**  
-40°C~+55°C
- Encapsulation** IP67

### Features

- Cooled MCT infrared detector has high sensitivity, providing clear images and long detecting distance
- Intelligent target recognizing and tracing
- Global exposure CCD can quickly capture the moving target
- Ultra-far and high-accuracy laser rangefinder

### Operating Distance





# SPIKE-B Series On Board Night Driver

-   
 Military-grade  
Uncooled Detector
-   
 Dual-light  
Fusion
-   
 Anti-shake  
Imaging
-   
 IP67  
Encapsulation



## SPIKE-B Series On Board Night Driver

SPIKE-B Series On Board Night Driver adopts uncooled IRFPA detector and low-light camera. With functions of dual-light fusion, intelligent human and vehicle recognition, and alarm, it can quickly and accurately locate hot spots and hidden points of people, for early detection of road hazards in the process of vehicle driving, thus is widely used in special vehicles driving assistance.

### Specifications

Item	Uncooled IRFPA thermal imager		"Infrared + visible light" dual-light fusion imager		
	SPIKE-BS3	SPIKE-BS6	SPIKE-BF		
<b>Detector</b>					
Detector Type	VO <sub>x</sub>	VO <sub>x</sub>	Infrared Light VO <sub>x</sub>	Low Light 1/1.8'' black and white low light	Fusion Mode -
Resolution	384×288	640×512	640×512	1920×1080	1280×1024
Pixel Pitch	17μm	12μm	12μm	4μm	-
Spectral Band	8-14μm	8-14μm	8-14μm	400-1000nm	-
NETD	<50mk	<50mk	<50mk	Min. 10 <sup>-3</sup> lux	-
FOV	39.5°×30.1°	45.8°×37.3°	45.8°×37.5°	51.3°×30.2°	45.8°×30.2°
<b>System Performance</b>					
Startup Time	<5s		<5s		
External Power Supply	9-36V				
Power Consumption	≤2W (6 W while defrosting)	≤2W (6 W while defrosting)	≤5W (10 W while defrosting)		
Image Modes	Infrared Thermal Mode	Infrared Thermal Mode	Infrared Thermal Mode, Visible Light Mode, Fusion Mode		
<b>Interface</b>					
Video Interface	PAL/FPD-Link differential		PAL/FPD-Link differential		
Communication Interface	RS232		RS232		
<b>Display (Optional)</b>					
Size	8"				
Resolution	800×600				
<b>Environment Specifications</b>					
Operating Temperature	-40°C+55°C				
Encapsulation	IP67				
Impact	60g/8ms; Rear peak sawtooth wave, 3 axis and directions, 3 times per direction				
Vibration	GJB 150.16A-2009				
Electromagnetic Compatibility	GJB151A				
<b>Physical Characteristics</b>					
Dimension	96×50×54mm		105×101×54mm		
<b>Recognition Distance</b>					
Human Target 1.7m×0.5m	150m	200m	200m	100m	-
Vehicle Target 2.3m×2.3m	200m	250m	250m	200m	-

### Features

- ❖ Self-developed military-grade VO<sub>x</sub> uncooled IRFPA detector
- ❖ Scene-based infrared correction to provide clear and stable images
- ❖ Dual-light fusion function, support various color palettes
- ❖ Intelligent detecting of human and vehicles, sound & pop-up obstacle alarm
- ❖ Automatic defrosting and heating of the camera
- ❖ Digital differential image, high-speed anti-interference



Low light mode



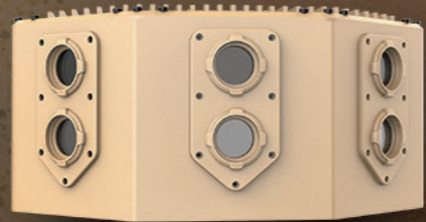
Infrared Mode



Fusion Mode



# SPIKE-J Panoramic Stitching Vision-enhanced Night Vision Device



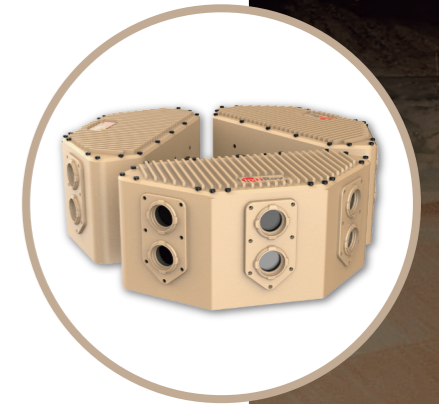
## SPIKE-J Panoramic Stitching Vision-enhanced Night Vision Device

SPIKE-J Panoramic Stitching Vision-enhanced Night Vision Device is equipped with multiple infrared and visible light sensors to provide multi-spectral wide FOV through seamless image mosaic technology. It can integrate AI platform to detect and classify targets to realize accurate target detection and recognition, thus greatly improving the situational awareness capability. SPIKE-J can be widely used in such fields as driving assistance, reconnaissance, surveillance, force protection, and urban patrol.

### Specifications

		SPIKE-J (Standard)	SPIKE-JS (Smart)
Infrared	Type	Uncooled	Uncooled
	Pixel pitch	12μm	12μm
	Resolution	640×512	640×512
	FOV	130°×40°	130°×40°
Visible light	Pixel pitch	2.9μm	2.9μm
	Resolution	1920×1080	1920×1080
	FOV	130°×29°	130°×29°
Interface	Video interface	SDI	SDI/H.264 encoded
	FPS	25	25
	Power supply	18-36VDC	18-36VDC
	Communication	CAN	CAN
Target recognition	Unavailable		Available
Operating distance	Recognition distance	Person 200m(infrared), 300m(visible light) Vehicle 260m(infrared), 400m(visible light)	Person 200m(infrared), 300m(visible light) Vehicle 260m(infrared), 400m(visible light)
	Dimension	260×130×120mm	260×130×120mm
Appearance	Weight	<3.5kg	<4kg
	Operating temperature	-40°C~+60°C	-40°C~+60°C
Environment	Shock	40g	40g
	Waterproof grade	IP67	IP67

Note: Human target 1.7 m×0.5 m; vehicle target 2.3 m×2.3 m.



### Features

- Seamless image
- Intelligent sensing
- All-weather operation
- "Infrared + visible light" dual-spectral fusion
- Ultra-wide FOV (support 360°)



### Operating distance

