



Outdoor Infrared Thermal Imaging

Product Manual



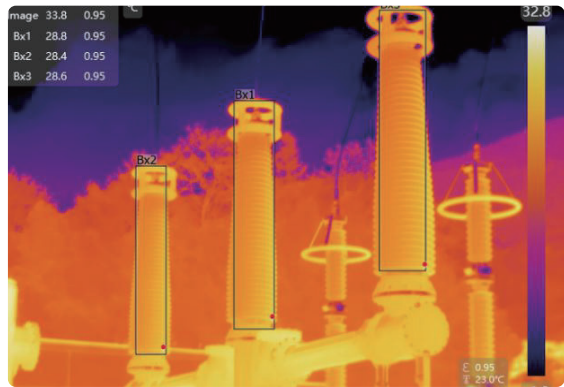
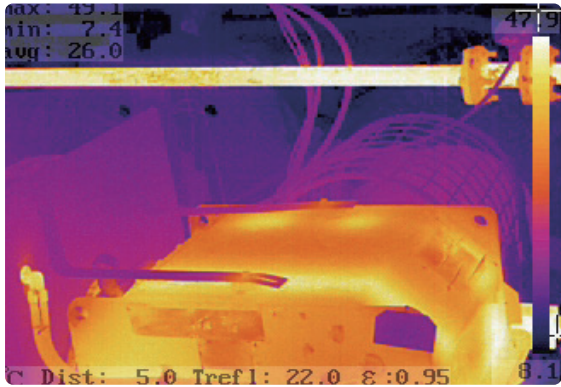
5B, Building F2, TCL Science Park, No.1001 Zhongshan Park Road, Xili Street, Nanshan District, Shenzhen



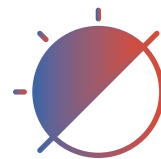
Company profile

Guangdong Laureii Intelligent Technology Co., Ltd. has focused on the innovation and R&D of infrared thermal imaging technology for over 15 years. The products cover industrial and civil thermal imaging equipment, which can be widely adopted in outdoor night vision, power monitoring, security monitoring, iron and steel metallurgy, petroleum and petrochemical fields. As a high-tech enterprise of infrared products integrating independent R&D and manufacturing, the Company is committed to providing global users with products and industry solutions with infrared thermal imaging technology as the core.

Advantages of Thermal Camera



Non-contact temperature measurement to ensure the safety of detection



Day and night visibility to support all-weather work



Easily distinguish between target thermal sources and background objects



Quickly identify abnormal heating contact

Why Choose Us?

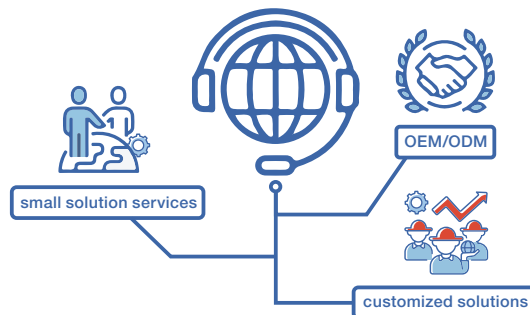
R&D: With over 15 years of R&D experience in thermal imaging products and more than 100 patents, we have established a sound R&D management system and process, which has helped us to obtain CE, FCC, RoHS and other certifications. Meanwhile, our R&D capability has been recognized by international authorities.



Manufacturing: With a modern factory of 8,000 square meters, our production capacity of infrared products can reach the annual production standard of one million. And we can meet customer delivery requirements with high quality and efficiency through specialized manufacturing equipment and strict quality control system.



Services: According to customer's requirements, we can provide professional, effective and convenient customized solutions, and also provide OEM/ODM services and small solution services. The Company always adheres to the service concept of "responsibility oriented, customer first", to provide customers with perfect after-sales and maintenance solutions.



Marketing and distributing over 50 countries in the world

CATALOGUE

01 Handheld Thermal Imaging Monoculars



LY-SSG

P01

LY-SSG Series follow the design of traditional optical equipment...

LY-SSA

P03

It is a lightweight and portable Handheld Thermal Imaging Monocular...

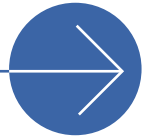


LY-SSD

P05

It is a lightweight and portable Handheld Thermal Imaging Monocular...





02 Outdoor Thermal Imaging Three-proof Smartphones



LY-SCP18

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It is a three-proof phone equipped with a 256*192 thermal imager...

03 Infrared Thermal Imaging Riflescopes



LY-SGG

P09

Laureii' s thermal imaging riflescope retains the appearance...

LY-SSG

Handheld Thermal Imaging Monoculars

LY-SSG Series follow the design of traditional optical equipment. It is a small, lightweight, simple operation, and a wide range of application scenarios for infrared handheld thermal imaging monocular. Laureii's Thermal scope has clear imaging and comfortable observation, suitable for medium distance and short-distance observation, It is an ideal equipment for outdoor night vision.



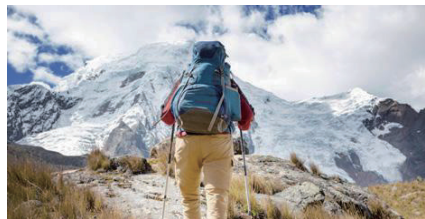
Features

- Infrared resolution: 256×192/400×300
- Detection Range: 2800m
- Boot up in 2 seconds and ready to use
- High-sensitivity self-developed infrared detector to accurately detect targets
- Built-in laser indicator to locate the target easily
- 1280x960 High Resolution LCOS Display Screen to provide a comfortable observation
- Connect App via WIFI to share anytime
- Support 8 hours super long operation time

Application



Outdoor



Wild Adventure



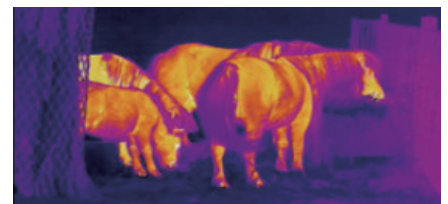
Law Enforcement



Search & Rescue



Personal Security



Livestock Breeding

Specifications

Model		LY-SSG210	LY-SSG410	LY-SSG420	LY-SSG430
Infrared Detector	Detector Type	VOx			
	Detector Resolution	256 × 192, 12 μm	400 × 300, 12 μm		
	Spectral Range	8 to 14 μm			
	NETD	≤50mk	≤40mk		
	Frame Rate	50 Hz			
Lens	Focal Length	10 mm; F1.0	19 mm; F1.0	25 mm; F1.1	35 mm; F1.0
	Focus	Electric	Manual		
	Field Of View	17.1°×13.0°	13.6°×10.3°	10.4°×7.9°	7.5°×5.6°
	Optical Zoom	1.5x	1.9x	2.4x	3.4x
	Digital Zoom	1x, 2x	1x, 2x and 4x		
Power	Battery Type	Single, replaceable 18650 battery			
	Battery Life	≥ 8 hours	≥ 7 hours		
Interface	USB	Type C (USB 2.0 standard), supporting analog video and power supply			
	Video Interface	USB Type C			
	External Expansion	External Display and Bluetooth remote control			
	Mechanical Interface	UNC ¼ "-20 (Tripod mounting), Mechanical expansion interface			
Display	Display Type	0.4" FLCOS			
	Resolution	1280 × 960			
	Eyepiece	Monocular, exit pupil distance≥12 mm, diopter adjustment: -4 to +2			
	Eyepiece Zoom	Available			
	Video Output	13.8x			
Functions	PIP	Upper left, Upper middle, Upper right, Closed			
	Image Enhancement	Supported only when there is no laser indicator			
	Scene Modes	Enhanced, Highlight and Natural			
	Ultra Power Saving Mode	Turn WIFI off or reduce the screen brightness level			
	WIFI	Transmission of real-time video via WIFI for remote control in the 2.4G frequency band and within 15 meters			
	Color Palettes	Black Hot, White Hot, Red Hot, Iron Hot, Blue Hot			
	Hot Spot Tracking	Available			
	Compensation Modes	Automatic, shutter and scene compensation			
	Laser	Supported only when a laser indicator is available, up to 200 m			
System Parameters	Language Settings	Chinese or English			
	Start Up	1 s	2 s		
Environmental	Storage Temperature Range	-30 °C to 60 °C			
	Humidity	10 % to 95 % non-condensing			
	Shock	30 G at 11 ms half sine pulse (as per IEC60068-2-27)			
	Vibration	10 Hz-150 Hz-10 Hz 0.15 mm (as per IEC60068-2-6)			
	Drop	1 m			
	Encapsulation	IP66			
	Certification	IP66, FCC, CE, RoHS, EAC, WEEE, un38.3, IEC 60825-1 Class 2			
Physical	Weight	≤280 g	≤350 g		
	Size (L ×W ×H)	130 × 40 × 70 mm	150 × 40 × 70 mm		
	Standard	Battery charger (for China, US, UK, Australia and Europe and in compliance with FCC, CE, EAC and RoHS), single 18650 battery, USB Type C cable, lens cap, wrist strap, carry bag, quick start guide			
	Optional	Extended bracket			

LY-SSA

Handheld Thermal Imaging Monoculars

It is a lightweight and portable Handheld Thermal Imaging Monocular, with simple operation and wide applications. The Monocular is ideal equipment for outdoor night vision in medium and short distance, with clear imaging and comfortable viewing.



Features

- IR Resolution: 384×288
- Detection Range: 552m
- High sharpness, wide field of vision
- FPS in 50Hz for a smooth visual experience
- Up to 8x lossless amplification to see details and capture targets faster
- WIFI real-time connection to help mobile phones view live videos, set parameters, video and take pictures
- Long battery life (8h) with type-c interface
- IP67 protection with waterproof and dustproof to use safely

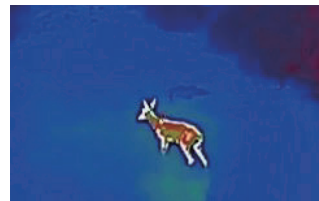
Application



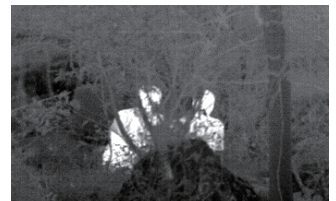
Search & Rescue



Outdoor Adventure



Animal Observation



Night Patrol

Specifications

Model		LY-SSA319	LY-SSA325
detector	Sensor Type	Uncooled VOx Detector	
	Spectral Response	8~14 μm	
	NETD	< 35 mk (@25°C, F# = 1.0)	
	Resolution	384 × 288	
	Frame Frequency	50 fps	
	Pixel Size	12 μm	
Lens	Focal Length	19mm	25mm
	Detection Range (Meiofauna)	42m	57m
	Detection Range (Mesofauna)	113m	150m
	Detection Range (Macrofauna)	419m	552m
Image display	Display Resolution	1024*768	
	Display	OLED	
	Brightness	Available in gear 1-5	
	Contrast	Available in gear 1-5	
	Image Details Enhancement	Available	
	AGC Mode	Automatic	
	Noise Reduction	Available	
	E-amplification	×1, ×2, ×4, ×8	
	Pseudo	Black heat, candescence, red heat, fusion	
	DPC	Available	
	CVBS	Available	
	FPS	50 frames	
	Mapping Time	6 s	
	Parameter Saving	Available	
	Cursor	Available	
Menu	Available		
System parameters	Power	USB 5 V	
	Battery Life	≥8H	
	Waterproof Level	IP67	
	Size (mm)	58*62*215	
	Weight	260g	
Product Features	P/V	Available	
	Video Output System	MP4	
	Wifi/Hotspots	Available	
	Firmware Upgrading	Available	
	Scene Adjustment	Available in nature, highlight and enhancement mode	
	Spacing Ranging	Available	
	Hotspot Tracking	Available	

LY-SSD

Handheld Thermal Imaging Monoculars



It is a lightweight and portable Handheld Thermal Imaging Monocular, with simple operation and wide applications. The Monocular is ideal equipment for outdoor night vision in medium and short distance, with clear imaging and comfortable viewing.

Features

- IR Resolution: 384x288/640x512
- Detection Range: Up to 2,600m
- High refresh with near zero latency
- 8x amplification for flexible search
- IP67 protection with high impact resistance
- Ultra-long battery life (maximum battery life longer than 7.5h)
- Easy to use in mobile APP operation

Application



Outdoor adventure



security patrol



Animal Observation



wilderness search

Specifications

Model		LY-SSD425	LY-SSD435	LY-SSD625	LY-SSD635	LY-SSD650
Infrared Detector	Detector Type	Uncooled VOx Focal Plane Detector				
	NETD	< 30mk (@25°C, F# = 1.0)				
	Pixel Size	12 μm				
	Detector Pixels	384x288		640x512		
	Spectral Range	8~14 μm				
Lens	Focal Length	25mm	35mm	25mm	35mm	50mm
	Thermal Imaging FOV	Level: 11.0° Vertical: 8.2°	Level: 7.8° Vertical: 5.9°	Level: 17.4° Vertical: 14.0°	Level: 12.4° Vertical: 10.0°	Level: 8.7° Vertical: 7.0°
	Detection Range	1300m	1800m	1300m	1800m	2600m
Image Display	Display Resolution	1440*1080				
	Display	OLED				
	Image Details Enhancement	Available				
	AGC Mode	Automatic				
	Noise Reduction	Available				
	E-amplification	x1, x2, x4, x8				
	Pseudo	Black Hot, White Hot, Red Hot, Iron Hot, Blue Hot				
DPC	Available					
Interface	Power Supply	5V DC/0.5A, USB Type-C				
Power	Battery life	> 7.5 hours				
Environmental	Operating Temperature	-30°C ~ +50°C				
	Operating Humidity	≤95%				
	Protection Level	IP67				
Functions	Ultra power saving mode	Turn WIFI off or reduce the screen brightness level				
	WIFI	Transmission of real-time video via WIFI for remote control in the 2.4G frequency band and within 15 meters				
	Hot spot tracking	Available				
	Compensation modes	Automatic, shutter and scene compensation				
	Laser	Supported only when a laser indicator is available, up to 180 m				

LY-SCP18

Thermal imaging outdoor triple security smartphone

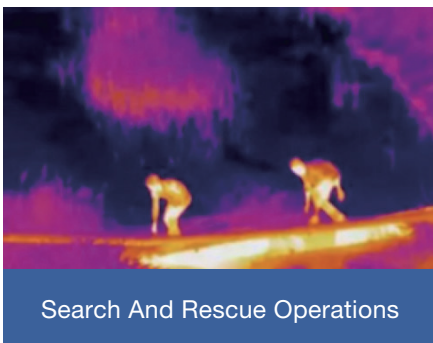
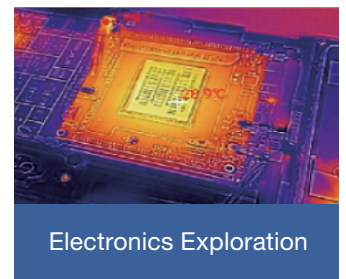
It is a three-proof phone equipped with a 256*192 thermal imager, with complete functions, which can be widely used in scenarios such as electrical appliance inspection, pipeline inspection and personnel search and rescue.

Features

- Thermal imaging sensor with 256*192 high resolution
- 48MP main camera
- 6.3-inch LCD HD display
- 8G running memory + 256G phone memory
- IP68/IP69K advanced waterproof and dustproof
- 18-day ultra-long standby



Application



Specifications

Model		LY-SCP18
Hardware Configuration	Display Resolution	1080*2340 FHD+
	Display Specifications	6.3" LCD
	Camera Resolution	Front camera: 4656*3504
		Rear main camera: 8000*6000
		Night vision camera: 3880*5184
		Thermal imaging cameras: 256*192
	Panel Technology	Multi-touch
	Sensor Technology	Capacitive touch panel
	Transmission Function	Navigation(Beidou,galileo,glonass,gps)/wifi(2.4g/5g) /bluetooth (Bt5.1)/fm/otg/nfc
	Sensor	Available in gravity sensor / distance sensor / light sensor compass / geomagnetic / gyroscope
	Battery Capacity	6000mah
	Standby Time	18 days
	Memory	(256+8)GB/(128+8)GB
	Network	GSM/WCDMA/CDMA/FDD/TDD
	Video Encode	2K30fps FHD+120fps H.264:K@60fps H.265
CPU	ARM Cortex A76&6x Cortex A55	
Certification	Software Certification	GMS
	Hardware Certification	CE(IEC62133 / ROHS / SAR)
	Battery Certification	UN38.3 / MSDS / Air Freight / Maritime Transport
Product Overview	Operating System	Android S
	Three Defense Standards	IP68 / IP69K / MIL-STD-810G
	Product Selling Points	4G GSM, 6.3" FHD+, 64M triple camera, dial sub-screen, 33W fast charging, wireless charging
	Dimensions (mm)	172mm*82mm*15.5mm
	Unit Weight (Including Battery)	320g

LY-SGG

Infrared Thermal Imaging Riflescopes



Laureii's thermal imaging rifle scope retains the appearance of a traditional daylight scope and perfectly integrates latest premium thermal imaging technology. The design of this scope accommodates long-term operating habits of hunters. LY-SGG series adopts high sensitivity thermal detector with three different lens options of 25mm, 35mm, 50mm, and its 10 sets of zero calibration configuration make it convenient to switch between different instruments.

Features

- Infrared resolution: 400×300/640×480
- Detection Range: 3300m
- HD OLED display, with 1x~8x smooth zoom, provides a comfortable visual experience
- 10 sets of zero calibration configurations can be saved, no need to recalibrate for different instruments
- The reticle density can be zoomed in synchronously with the image to ensure the aiming accuracy
- 10 kinds of reticles, 6 kinds of reticle colors, 10 grades of reticle brightness, for your selection
- Remote control by WIFI or Bluetooth, for diversified usage
- Rugged and durable, IP67 rating, working temperature -30°C~50°C, no fear of severe weather
- 10hrs super long duration time, changing battery without turn off, ensuring full day operations

Application



Outdoor Observing



Law Enforcement

Specifications

Model		LY-SGG420	LY-SGG430	LY-SGG450	LY-SGG620	LY-SGG630	LY-SGG650
Infrared Detector	Detector Type	VOx					
	Detector Resolution	400 ×300, 17 μm			640 ×480, 12 μm		
	Spectral Range	8 to 14 μm					
	NETD	≤30mk					
	Frame Rate	50Hz					
Lens	Focal Length	25mm; F1.1	35mm; F1.2	50mm; F1.2	25mm; F1.0	35 mm; F1.0	50 mm; F1.0
	Focus	Manual					
	Field Of View	15.49° × 11.65°	11.1° × 8.33°	7.78° × 5.84°	17.46° × 13.14°	12.52° × 9.41°	8.78° × 6.59°
	Optical Zoom	1.6x	2.3x	3.2x	1.4x	2.0x	2.8x
	Digital Zoom	1 –4x			1 –8x		
Power	Battery Type	Single 18650 battery (built-in) and customized battery (external)					
	Battery Life	≥ 5 hours					
Interface	USB	Type C, supporting power delivery, charging, and reading data from memory card					
	Video Interface	micro HDMI					
	External Expansion	External Display and Bluetooth remote control					
	Mechanical Interface	Picatinny					
Display	Display Type	0.39" OLED					
	Resolution	1024 × 768					
	Eyepiece	Exit pupil distance ≥ 48 mm, Exit pupil diameter ≥ 8 mm, Diopter ± 4					
	Eyepiece Zoom	14x					
	Video Output	Digital video					
Functions	PIP	Upper left, Upper middle, Upper right, Closed, PIP with division line					
	Smooth Zoom	Available					
	Image Enhancement	Available					
	Scene Modes	Enhanced, Highlight and Natural					
	Ultra Power Saving Mode	Available					
	Image Capturing	Available					
	Video Recording	Available					
	WIFI	Transmission of real-time video via WIFI for remote control in the 2.4G frequency band and within 15 meters					
	Color Palettes	White Hot, Black Hot, adjustable Red Hot , Green Hot, Iron Red, Blue Hot					
	Hot Spot Tracking	Available					
	Compensation Modes	Shutter and scene compensation					
	Zero Calibration	50 m / 100 m / 200 m / 300 m / 500 m					
	Line Type	10 types					
	Line Brightness	10 levels					
	Line Color	Black / white / yellow / green / red / blue					
Rough Ranging	Available						
System	Language Settings	Chinese / English / Russian / German / French					
	Start Up	18 s					
	Memory Capacity	16GB					
Environmental	Operating Temperature Range	-30°C to 50°C					
	Storage Temperature Range	-45°C to 70°C					
	Humidity	10 % to 95 % non-condensing					
	Shock	500 G at 1 ms half sine pulse (as per IEC60068-2-27)					
Physical	Vibration	10 Hz~150 Hz~10 Hz 0.15 mm (as per IEC60068-2-6)					
	Weight	≤930 g	≤940 g	≤ 950 g	≤980g		≤990 g
Physical	Size (L ×W ×H)	367×107×69 mm		377×107×69 mm	367×107×69 mm		377×107×69 mm
	Standard	Type C cable, lens cap, 5V2A adapter (China, US, Britain, Australia and Europe), customized battery, customized battery charger (desktop charger), Micro HDMI cable, eye mask, two Picatinny rail clips, quick start guide					
	Optional	Bluetooth remote control, customized battery					



Guangdong Laureii Intelligent Technology Co., Ltd.

5B, Building F2, TCL Science Park, No. 1001 Zhongshan Park Road,
Xili Street , Nanshan District, Shenzhen

T +86-755-86137880 E: sales@laureii.com

For the latest information, please visit our website: www.ir-laureii.com