AGM GLOBAL VISION

VOYAGE
TB75-640

FUSION THERMAL IMAGING & CMOS BINOCULAR WITH BUILT-IN LASER RANGE FINDER

The Voyage series of fusion thermal & optical dual-spectrum binoculars are equipped with a 12μm high-sensitivity infrared thermal sensor (NETD < 20 mK), 2560×1440 ultra-low light optical detector, 1024×768 OLED display and eyepiece with large field of view. The device can quickly discover and locate hiding objects even under extreme environments, such as smoke, fog, rain and snow. It can be widely applied to law enforcement scenarios, as well search-and-rescue, drug enforcement, anti-smuggling, hiking, and hunting.

The waterproof housing ensures optimum performance in severe weather conditions and challenging environments. The Voyage's user-friendly interface and ergonomic buttons makes adoption and application intuitive and simple. The binocular offers a variety of images including thermal, visible, fusion, and is easily adaptable to different environmental conditions.

The Voyage is equipped with all key features for target detection and positioning, including a laser rangefinder, GPS module, electronic compass, inclinometer, and 850nm IR illuminator.

This high-tech bi-ocular can take three 18650 rechargeable Lithium batteries for 8 hours of operation. An integrated proximity sensor saves energy.

- **Dual-spectrum image fusion and object highlight (detail enhancement and target recognition)**
- **Selection of thermal view channel, visible light channel, or both them combined**
- **Thermal resolution: 640×512**
- **Optical resolution: 2560×1440**
- **NETD less than 20 mK (25°C, F#=1.20)**
- **Digital Detail Enhancement (DDE)**
- **Dynamic Noise Reduction (3D DNR)**
- **Adaptive Automatic Gain Control (AGC)**
- **Ultra-low illumination (optical channel), B/W: 0.001 lux @ (F1.2 , AGC On)**
- **Video recording, replay, picture snapshot and search (capable to review the event on device)**
- **Wi-Fi hotspot**
- **Eye-safe laser rangefinder (up to 1,000 m distance detection with measuring accuracy 1 m)**
- **GPS module**
- **Digital magnetic compass**
- **Inclination sensor**
- **Proximity sensor to save power**
- **Up to 8 hours continuous operation**
- **Waterproof, IP67**
- **5-Year Warranty**

SPECIFICATIONS

THERMAL MODULE	
Image Sensor	12 µm Vanadium Oxide Uncooled Focal Plane Array
Resolution	640×512
Refresh Rate	25 Hz
Response Waveband	8 µm to 14 µm
NETD	Less than 20 mK (25°C, F#=1.2)
Lens (Focal Length)	75 mm, Manual focus
Magnification	5× - 80×
Field of View	5.9° × 4.7°
Aperture	F1.2
Digital Zoom	1×, 2×, 4×, 8×, 16×
Detection Range	3,600 m/yd (6' object)*
Focus Mode	Manual focus
Minimal Focus Distance	7.5 m
OPTICAL MODULE	
Max. Image Resolution	2560×1440
Image Sensor	1.88" Progressive Scan CMOS
Min. Illumination	B/W : 0.001 lux @ (F1.2 , AGC On)
Lens (Focal Length)	31 mm
Aperture	F1.2
IR Illuminator	Built-in 850 nm Smart IR
Night Viewing Range	400 m/yd *
IMAGE DISPLAY	
Monitor	0.39-inch, OLED, 1024×768
Diopter Adjustment	-5 to +3 dpt
Interpupillary Distance	60 mm to 70 mm
Eye Relief	15 mm
Image Mode	Optical, White Hot Thermal, Black Hot Thermal, Red Hot Thermal, Image Fusion
Optical Mode	Day, Night, Auto, Defog
Flat Field Correction	Auto, Manual, External Correction
PIP	Yes
LASER RANGEFINDER	
Measuring Distance	Max. 1,000 m
Accuracy	±1 m
Laser Wavelength	905 nm (Class 1)

* Approximate value. Ranges depend on various factors such as weather, temperature differences between objects, environment, etc.

SYSTEM	
Storage	Built-in memory module (64 GB)
Video Recording	MP4, 1600x1200
Snapshot Capture	JPEG, 1600x1200
Audio Recording	Yes
Local Album	Yes
Wi-Fi Hotspot	Yes
GPS	Yes
Digital Compass	Yes
Hot Track	Yes
Laser Rangefinder	Yes
Proximity Sensor	Yes
Standby Mode	Yes
POWER SUPPLY	
Battery Type	Three 18650 batteries
Battery Operating Time	Up to 8 hours
Battery Capacity Display	Yes
External Power Supply	DC 5V/2A, Max.10W, Type-C port
GENERAL	
Working Temperature	-30°C to 55°C (-22°F to 131°F)
Storage Temperature (w/o batteries)	-40°C to 70°C (-40°F to 158°F)
Working Humidity	< 90%
Protection Level	IP67
Mounting	1/4"-20 UNC
Cable Output	USB Type-C port
Accessories (Supplied)	Battery Charger, Power Cable, Lens Cloth, Two Wrist Straps, Neck Strap, Six 18650 Batteries, Power Adapter, User Manual, Carrying Case
Dimensions (L×W×H)	230 × 155 × 88 mm (9.0 × 8.65 × 3.5 in)
Weight	1.45 kg (3.2 lb)

Specifications are subject to change without notice.

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