



AGM
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VISION

EXPLORATOR FSB-PRO

HANDHELD THERMAL & OPTICAL BI-SPECTRUM BINOCULAR WITH LASER RANGEFINDER



AGM Explorator FSB-PRO Handheld Thermal & Optical Bi-spectrum Binocular is equipped with ultra-low light optical detector, 640×512 thermal detector, 1920×1080 optical module, 1024×768 OLED display and eyepiece with large field of view. The device can quickly discover and locate hiding objects even under extreme environment, such as smoke, fog, rain and snow. It can be widely applied to scenarios like patrol, law enforcement, search and rescue, drug enforcement, anti-smuggling and suspect capture.

Due to its waterproof capability the device performs well even in severe weather conditions and challenging environment. The Explorator's user-friendly interface, comfortable and ergonomic buttons makes adoption and application incredibly simple. The binocular offers many different variants of image view: thermal, visible, fusion, etc. that can be easily adapted depending on different environmental conditions.

The Explorator FSB-PRO is equipped with all key features for target detection and positioning, including a laser rangefinder, GPS module, electronic compass and inclinometer.

This high-tech bi-ocular can take four 18650 rechargeable Lithium batteries for more than 7 hours operating time. Integrated proximity sensor saves energy. When sensor detects eyes, the OLED screen turns on, otherwise the OLED screen is off. In addition, an external power supply provides an increase in operating time.

- **Bi-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 @25fps, optical resolution: 1920×1080 @25fps**
- **NETD less than 40 mK (25°C, F#=1.0)**
- **Digital Detail Enhancement (DDE)**
- **Dynamic Noise Reduction (3D DNR)**
- **Adaptive Automatic Gain Control (AGC)**
- **Ultra-low illumination (optical channel), B/W: 0.001 lux @ (F1.0 , AGC On)**
- **Video recording, replay, picture snapshot and search (capable to review the event on device)**
- **Wi-Fi hotspot**
- **Eye safety laser rangefinder (up to 3 km distance detection with measuring accuracy 0.75 m)**
- **GPS module**
- **Digital magnetic compass**
- **Inclination sensor**
- **Proximity sensor to save power**
- **More than 7 hours continuous running**
- **Waterproof, IP67**
- **Limited 3-Year Warranty**

SPECIFICATIONS

THERMAL MODULE

Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	640x512 @ 25 fps
Pixel Pitch	17 µm
Response Waveband	8 µm to 14 µm
NETD	Less than 40 mK (25°C, F#=1.0)
Lens (Focal Length)	50 mm, Manual focus
MRAD (IFOV)	0.34
Field of View	12.42° × 9.95°
Aperture	F 1.0
Digital Zoom	4x
Detection Range	1,471 m (Human) 4,510 m (Vehicle) *
Recognition Range	368 m (Human) 1,127 m (Vehicle) *
Identification Range	184 m (Human) 564 m (Vehicle) *

OPTICAL MODULE

Max. Image Resolution	1920x1080 @ 25 fps
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	B/W : 0.001 lux @ (F1.0, AGC On)
Lens (Focal Length)	22 mm
Optical Magnification	2.34x

IMAGE DISPLAY

Monitor	0.39-inch, OLED, 1024x768
Thermal/Optical Mode	Thermal view, B/W optical view, image fusion view are selectable
Image Fusion	Color fusion, B/W fusion
Palettes	Black hot, White hot

SMART

Hot Track	Yes
Object Highlight	Yes
Automatic Backlight	The OLED backlight automatically turns off if no human eyes are detected.
Image Enhancement	Digital Detail Enhancement (DDE) Dynamic Noise Reduction (3D DNR) Adaptive Automatic Gain Control (AGC)

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

SYSTEM

Storage	Built-in memory module (32 GB)
Record Video	On-board video recording
Snapshot	On-board image capturing
Video Replay	Yes
Picture Search	Yes
Wi-Fi	Yes
GPS	Yes
Laser Rangefinder	Yes
Measuring Distance of Laser Rangefinder	Max. 3 km
Laser Rangefinder Accuracy	0.75 m
Laser Wavelength	1550 nm (Class 1)
Head Accuracy	0.2° (RMS)

POWER SUPPLY

Battery Type	Four 18650 batteries
Battery Operating Time	More than 7 hours
Battery Capacity Display	Yes
External Power Supply	DC 5V/2A, Max.10W

GENERAL

Menu Language	English
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)
Protection Level	IP67
Mounting	UNC 1/4"-20
Cable Output	Aviation plug: connecting to BNC, DB9, and USB
Accessories (Supplied)	Battery charger, battery charger power cable, wiping cloth, two wrist straps, User manual, aviation plug cable, eight batteries
Dimension (LxWxH)	187.8 × 219.8 × 87.4 mm (7.4 × 8.65 × 3.4 in)
Weight	Approx. 1.5 kg (3.3 lb)

Specifications are subject to change without notice.



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