

EXPLORATOR FSB50-640

HANDHELD THERMAL & OPTICAL BI-SPECTRUM BINOCULAR



AGM Explorer FSB50-640 Handheld Thermal & Optical Bi-spectrum Binocular is equipped with ultra-low light optical detector, 640×512 thermal detector, 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 Explorer'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 unit can be easily mounted on a tripod which grants operator convenient/hands free use of thermal binocular.

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 (5 V) 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
- High resolution 640×512 thermal channel and 1280×960 optical channel
- Digital Detail Enhancement (DDE)
- Dynamic Noise Reduction (3D DNR)
- Adaptive Automatic Gain Control (AGC)
- High-sensitivity optical channel for ultra-low illumination conditions (0.001 lux)
- 0.39-inch OLED display
- Automatic OLED backlight
- Manual focus for thermal lens
- Video recording, replay, picture snapshot and search (capable to review the event on device)
- Wi-Fi hotspot
- GPS Function
- More than 7 hours continuous running
- Proximity sensor to save power
- Stadiametric rangefinder
- Waterproof, IP67
- Limited 3-Year Warranty

SPECIFICATIONS

THERMAL MODULE	
Image Sensor	Uncooled Focal Plane Arrays
Resolution	640x512 @ 25 fps
Pixel Pitch	17 µm
Response Waveband	8 µm to 14 µm
NETD	< 40 mK (@25°C, F#=1.0)
Lens (Focal Length)	50mm, Manual focus
MRAD (IFOV)	0.34
Field of View	12.42° x 9.95°
Aperture	F 1.0
Digital Zoom	4x
Detection Range (6' object)	1470 m/yd
OPTICAL MODULE	
Image Sensor	1/3" Progressive Scan CMOS
Min. Illumination Level	B/W : 0.001 lux @ (F1.0, AGC On)
Resolution	1280x960 @ 25 fps
Lens (Focal Length)	12 mm
Optical Magnification	3.9x
IMAGE DISPLAY	
Monitor	0.39-inch, OLED, 1024x768
Thermal/Optical Mode	Thermal view, optical view, image fusion view are selectable
Image Fusion	B/W Fusion
Thermal Palettes	Black hot, White hot
Display Brightness Control	10 Levels
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 Output	CVBS
Video Replay	Yes
Picture Search	Yes
Wi-Fi	Yes
GPS	Yes
Distance Measurement	Stadiametric rangefinder
POWER SUPPLY	
Battery Type	Four 18650 batteries
Battery Operating Time	≥7 hr
Battery Capacity Display	Yes
External Power Supply	DC 5V/2A, Max.10W
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)
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, aviation plug cable, eight batteries, user manual, hard case
Dimension (LxWxH)	164 × 182.3 × 73.3 mm (6.46 × 7.18 × 2.89 in)
Weight	<1.0 kg (2.20 lb)
Weight w/o Batteries	820 g (1.8 lb)

Specifications are subject to change without notice.



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