VOYAGE
TB50-384

FUSION THERMAL & DIGITAL DAY/ NIGHT VISION BINOCULAR WITH BUILT-IN LASER RANGE FINDER

The AGM Voyage TB50-384 Fusion Thermal & Digital Day/Night Vision binocular is some of the most technologically advanced and feature-packed optics in the world. The primary engine behind this binocular lies within the main thermal viewing channel, with its incredible new 12 micron 384x288 thermal detector. This new AGM thermal sensor possesses an industry leading sensitivity rating of sub-20mK (millikelvin). This sensor from AGM will ensure that not only are human-sized heat signatures detectable at up to 1.6 miles (2600m), but also that foliage and other background imagery will be crisp and detailed in closer distances/ranges. Unlike other thermal binoculars on the market, the Voyage also come outfitted with a digital night vision channel as well, which is great for aiding in recognition of targets after the thermal channel has detected a potential target. The built-in 1000m Laser Rangefinder simply takes the Voyage to another level, and this is without even mentioning its 64GB of internal memory and Wi-Fi compatibility.

The potential uses with the Voyage fusion binoculars seem almost as endless as its features, which include, but are not limited to: high-sensitivity sub-20mK thermal detector, 50mm Germanium lens with a 0.9 aperture, 2560x1440 ultra-low light CMOS sensor, various viewing modes, including fusion imaging and multiple color palettes, 5.5X base magnification with 16X digital zoom, picture-in-picture mode, built-in laser rangefinder, GPS module, inclination sensor, Digital Detail Enhancement (DDE), up to 8 hours of battery life on three removable, rechargeable 18650 batteries, USB Type-C port for external power capabilities, IP67 waterproof rating, included hard carrying case, neck strap and of course AGM's 5 Year Transferable Warranty!

- Dual-spectrum image fusion and object highlight (detail enhancement and target recognition)
- Selection of thermal view channel, visible light channel, or both combined
- Thermal resolution: 384×288
- Optical resolution: 2560×1440
- NETD less than 20 mK (25°C, F#=0.9)
- 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	384×288
Refresh Rate	25 Hz
Response Waveband	8 µm to 14 µm
NETD	Less than 20 mK (25°C, F#=0.9)
Lens (Focal Length)	50 mm, Manual focus
Magnification	5.5× - 88×
Field of View	5.3° × 4.0°
Aperture	F0.9
Digital Zoom	1×, 2×, 4×, 8×, 16×
Detection Range	2,600 m/yd (6' object)*
Focus Mode	Manual focus
Minimal Focus Distance	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)	217 × 155 × 87 mm (8.5 × 6.1 × 3.5 in)
Weight	1.12 kg (2.5 lb)

Specifications are subject to change without notice.
Images are for illustration purposes only.

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