FUZION

FUSION THERMAL & OPTICAL BI-SPECTRUM MONOCULAR

The AGM Fuzion Handheld Thermal & Optical Bi-spectrum Monocular is equipped with 12µm high sensitivity thermal detector, ultra-low light optical detector, 1024×768 OLED display and eyepiece with a large field of view. The device can quickly detect hiding objects even under extreme environments such as smoke, fog, rain, snow, etc. It can be widely applied to scenarios including patrol, search and rescue, drug interdiction, and suspect apprehension. Due to its waterproof capability the device performs well even in severe weather conditions and challenging environments.

The Fuzion's user-friendly interface, comfortable and ergonomic operating controls makes adoption and application incredibly simple. The monocular offers three different variants of image view: thermal, visible light, and fusion that can be easily adapted depending on different environmental conditions. The Fuzion uses one 18650 rechargeable Lithium battery for up to 5-hours of operating time. In addition, an external power supply can be used to provide 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
- 12 µm, 35 mK NETD high sensitivity thermal detector
- Fast 50 Hz imaging
- 1x, 2x, 4x, 8x digital zoom
- Digital image processing technology
- Ultra-low illumination optical channel
- 1920×1080 optical resolution
- 1024×768 resolution, 0.39-inch OLED display
- Video recording and snapshot, built-in EMMC (16 GB)
- Wi-Fi hotspot
- Standby mode
- Up to 5 hours continuous running
- Waterproof
- Limited 3-Year Warranty

SPECIFICATIONS

	FUZION TM25-384	FUZION TM35-384	FUZION TM35-640
Detector Type	12 µm VOx Uncooled Focal Plane Arrays	12 µm VOx Uncooled Focal Plane Arrays	12 µm VOx Uncooled Focal Plane Arrays
Resolution	384 × 288	384 × 288	640 × 512
Refresh Rate	50 Hz	50 Hz	50 Hz
Response Waveband	8 µm to 14 µm	8 µm to 14 µm	8 µm to 14 µm
Thermal Lens Focal Length	25 mm	35 mm	35 mm
Aperture	F1.0	F1.0	F1.0
Field of View (HxV)	10.5° × 7.9°	7.5° × 5.7°	12.5° × 10°
Magnification	2.5x − 20x	3.5x − 28x	2x − 16x
Digital Zoom	1x, 2x, 4x, 8x	1x, 2x, 4x, 8x	1x, 2x, 4x, 8x
Observation Distance	1,250 m	1,750 m	1,750 m
Monitor	1024x768, 0.39 inch, OLED, 50Hz	1024x768, 0.39 inch, OLED, 50Hz	1024x768, 0.39 inch, OLED, 50Hz
FFC (Flat Field Correction)	Auto, Manual, External Correction	Auto, Manual, External Correction	Auto, Manual, External Correction
Palettes	Black Hot, White Hot, Red Hot, Fusion, Visible, Image Fusion	Black Hot, White Hot, Red Hot, Fusion, Visible, Image Fusion	Black Hot, White Hot, Red Hot, Fusion, Visible, Image Fusion
Highest Temperature Spot Tracking	Yes	Yes	Yes
Scene Mode	Jungle, Recognition	Jungle, Recognition	Jungle, Recognition
Optical Image Sensor	1/2" Progressive Scan CMOS, 1920×1080@25fps	1/2" Progressive Scan CMOS, 1920×1080@25fps	1/2" Progressive Scan CMOS, 1920×1080@25fps
Optical Sensor Wavelength	400-1000 nm	400-1000 nm	400-1000 nm
Optical Module Lens Focal Length	22 mm	22 mm	22 mm
Hotspot	Yes	Yes	Yes
Sleep Mode	Yes	Yes	Yes
Built-in Storage	16 GB EMMC	16 GB EMMC	16 GB EMMC
Record Video	On-board video recording	On-board video recording	On-board video recording
Capture Snapshot	Yes	Yes	Yes
CVBS Output	Yes (via USB)	Yes (via USB)	Yes (via USB)
Battery Type	One 18650 rechargeable battery (removable)	One 18650 rechargeable battery (removable)	One 18650 rechargeable battery (removable)
Battery Operating Time	Up to 5 hours continuous running (@25°C, WiFi and CVBS off) Up to 3 hours continuous running (@25°C, WiFi and CVBS on)	Up to 5 hours continuous running (@25°C, WiFi and CVBS off) Up to 3 hours continuous running (@25°C, WiFi and CVBS on)	Up to 5 hours continuous running (@25°C, WiFi and CVBS off) Up to 3 hours continuous running (@25°C, WiFi and CVBS on)
Battery Capacity Display	Yes	Yes	Yes
Power	5 VDC/2 A, USB Type-C interface Supports external power supply	5 VDC/2 A, USB Type-C interface Supports external power supply	5 VDC/2 A, USB Type-C interface Supports external power supply
Working Temperature	-20°C to 55°C (-4°F to 131°F)	-20°C to 55°C (-4°F to 131°F)	-20°C to 55°C (-4°F to 131°F)
Protection Level	IP67 (Waterproof)	IP67 (Waterproof)	IP67 (Waterproof)
Dimensions	161 × 87 × 51 mm (6.3 × 3.4 × 2.0 in)	168 × 87 × 51 mm (6.6 × 3.4 × 2.0 in)	168 × 87 × 51 mm (6.6 × 3.4 × 2.0 in)
Weight (w/o batteries)	470 g (1.04 lb)	480 g (1.06 lb)	480g (1.06 lb)

Specifications are subject to change without notice.

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