



EXPLORER RPM

Multi-Sensor Remote-Controlled Target Acquisition Thermal Imaging Binocular

EXPLORER RPM is an advanced, lightweight, multi-sensor binocular for day/night observation and target acquisition which is mounted on a remote-controlled pan-and-tilt system. This "all-in-one" system combines a 3rd generation thermal imager with a fully eye-safe laser rangefinder up to 10km, high-resolution CMOS day camera, built-in GPS, Digital Compass and Inclinator.

EXPLORER RPM transfers real-time dynamic data of self-position and target coordinates via wireless, cable or fiber optic communication to a hand-held Commander's Display. The system can be integrated with radar, intrusion detection systems, and remotely-controlled weapon sights.

- Compact high resolution day/night thermal imaging sensor
- Ideal for tactical field commanders, special forces, forward observers, HLS and peacekeeping missions, in mounted, dismounted, and structure-based scenarios.

- ☞ 24hr observation in adverse conditions
- ☞ Built-in GPS, Code C/A, 12 channels
- ☞ Digital Compass (degrees or mils)
- ☞ Compass accuracy: 1° RMS
- ☞ Inclinator ($\pm 70^\circ$)
- ☞ Built-in continuous zoom
- ☞ C²I capabilities
- ☞ SVGA Color OLED display
- ☞ Ruggedized metal casing
- ☞ High survivability



EXPLORER RPM



Technical Characteristics

Thermal Channel

Detector	320x256 InSb FPA, 3-5 μ m
FPA Cooling	Closed-cycle Stirling
NETD	< 0.025°C @ 23°C
FOV or Continuous Zoom	NFOV: 1.9° x 1.5°; MFOV: 8° x 6.4° WFOV: 25.6° x 20.5° } or NFOV/WFOV Continuous Zoom

Day Channel

Sensor Type	C-MOS 1280x1024
FOV	WFOV: 3.5° x 2.8° NFOV: 1.8° x 1.4°

Laser Rangefinder (LRF)

Wavelength	1.54 μ m Class 1, fully eye-safe
Range	100m to 15,000m (depending on environmental conditions)
Range Accuracy	\pm 5 m (1 σ)

Digital Magnetic Compass (DMC)

Azimuth	In degrees or mils
Azimuth Accuracy	1° RMS
Elevation	\pm 60°
Elevation Accuracy	1° RMS

Global Positioning System (GPS)

Coordinates	Self-Position, target position
Code	C/A, 12 Channels
Antenna	Active internal antenna

Pan & Tilt System

Speed	PAN: 10°/sec or 30°/sec; TILT: 10°/sec
Op. Angle	PAN: 340°; TILT: +30° to -90°

Laser Pointer (Optional)

Power	65 mW, 830 nm (IR)
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Electrical

Power source	- Rechargeable Li-Ion battery, NSN# 6140-01-490-5372 - Operable from AC voltage via AC to DC converter
Operating Time	4 hr (battery-operated)
Video Output	(NTSC or PAL) + SVGA

Communication

Serial	RS-232/RS-422
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Command, Control & Intel (C²I)

Info Display	Map, User & Target Coordinates
C ² I Applications	Embedded for multi-tasking C ² I-related operations

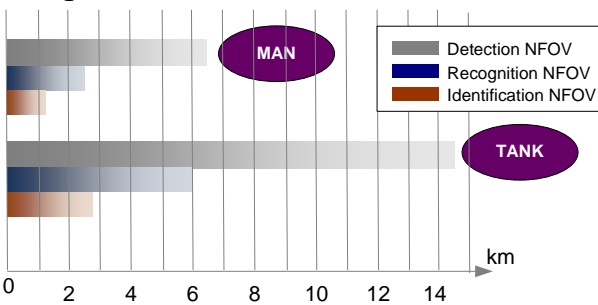
Physical

Dimensions	280x126x305 mm
Weight	<3.2 kg
Tripod Interface	Standard 1/4" UNC + locating pin

Environmental

Complies with MIL-STD-810E and MIL-STD-461

Range Performance With actual targets



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