



EXPLORER

Long-Range Multi-Functional Target Acquisition Thermal Imaging Binocular

EXPLORER is an advanced, lightweight, multi-sensor binocular for day/night observation and target acquisition. This "all-in-one" system combines a 3rd generation thermal imager with a fully eye-safe laser rangefinder up to 15km (depending on the prevailing environmental conditions), high-resolution CMOS day camera, built-in GPS, Digital Compass and Inclinator.

EXPLORER displays real-time dynamic data of self-position and target coordinates on a binocular OLED display. The system can be hand-held or tripod mounted, according to operational needs.

- Compact high resolution day/night imaging system.
- Ideal for tactical field commanders, special forces, forward observers, HLS and peacekeeping scenarios.

- >>> 24hr observation in adverse conditions
- >>> Built-in GPS, Code C/A, 12 channels
- >>> Digital Compass (degrees or mils)
- >>> Compass accuracy: 1° RMS
- >>> Inclinator ($\pm 60^\circ$)
- >>> Continuous zoom or 3 FOVs
- >>> SVGA Color OLED display
- >>> Ruggedized metal casing
- >>> High survivability
- >>> Optional Laser Pointer
- >>> Optional 2D dynamic map display



EXPLORER

Technical Characteristics

Thermal Channel – Standard

Detector

- Type 320x256 InSb FPA, 3-5 μm
- FPA Cooling Closed-cycle Stirling
- NETD $\leq 30 \text{ mK}$

Continuous Zoom Throughout the entire NFOV-to-WFOV range

or

3 Discrete FOVs

- NFOV: $2^\circ \times 1.6^\circ$
- MFOV: $6.4^\circ \times 5^\circ$
- WFOV: $24^\circ \times 19^\circ$

Thermal Channel – Power-Save

Detector

- Type 388x284 MCT FPA, 3-5 μm
- FPA Cooling Closed-cycle Stirling
- NETD $\leq 50 \text{ mK}$

Continuous Zoom Throughout the entire NFOV-to-WFOV range

or

3 Discrete FOVs

- NFOV: $1^\circ \times 0.8^\circ$
- MFOV: $3.3^\circ \times 2.6^\circ$
- WFOV: $11^\circ \times 9^\circ$

Day Channel

Sensor Type

C-MOS 1280x1024

FOV

WFOV: $3.5^\circ \times 2.8^\circ$

NFOV: $1.8^\circ \times 1.4^\circ$

Laser Rangefinder (LRF)

Wavelength

1.54 μm , fully eye-safe

Range

100m to 15,000m (depending on environmental conditions)

Range Accuracy

$\pm 5 \text{ m}$ (1σ)

Digital Magnetic Compass (DMC)

Azimuth Display

In degrees or mils

Elevation

$\pm 60^\circ$

Azimuth Accuracy

1° RMS

Global Positioning System (GPS)

Coordinates

Self-Position, target position

Code

C/A, 12 Channels

Antenna

Active internal antenna

Laser Pointer (Optional)

Power

65 mW, 830 nm (IR)

Electrical

Power source

-Rechargeable Li-Ion battery, NSN# 6140-01-490-5372 or compatible

-Operable from AC voltage via AC to DC converter

Operating Time

4 hr (battery-operated, under normal conditions)

Video I/O

Out: NTSC/PAL + SVGA
In: SVGA

Communication

Serial

RS-232/RS-422

Physical

Dimensions

280x126x305 mm

Weight

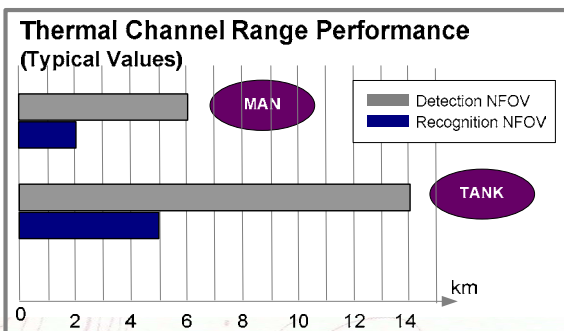
<3.2 kg

Tripod Interface

Std 1/4" UNC + locating pin

Environmental

Complies with MIL-STD-810



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Specifications subject to change at any time

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