PORTABLE SYSTEMS

ENGEREK-F

HANDHELD FUSION BINOCULAR SURVEILLANCE SYSTEM

GENERAL FEATURES

ENGEREK F is a handheld binocular observation system that integrates low-light imaging, thermal imaging, laser range measurement, and target positioning functionalities. Designed for continuous operation in both daytime and nighttime conditions, the system provides clear imaging under starlight environments and supports digital image output for external display and recording. Its core capability lies in the seamless fusion of low-light and thermal technologies, enabling the system to deliver enhanced image clarity, superior target discrimination, and increased situational awareness, thereby ensuring high operational effectiveness in mission-critical applications.

SPEC SUMMARY

Usage	Handheld	
	THERMAL	**DAY** *(LOW LIGHT)*
Detector Type	Uncooled µB	CMOS
Spectral Band	LWIR *(8–14µm)*	400-1100nm
Detector Resolution	640×512	800×600
Field Of View	9.8° x 7.8°	
Digital Magnification	2X-4X-8X	
Mode	Lowlight / Thermal / Fusion / Color Fusion	

Detection		**1800m**
Recognition		**700m**
Detection		**3900m**
Recognition		**1000m**

BATTERY LIFE	WEIGHT	SIZE (mm)
≥8h	**1600g**	**215 x 200 x 95**

"These calculations have been performed according to the Johnson criteria. Actual performance may vary depending on atmospheric conditions, temperature, humidity, fog, precipitation, and other environmental factors."

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ENGEREK-F

SPECIFICATIONS

OPTIC		
	THERMAL	**DAY** *(LOW LIGHT)*
Field Of View	9.8° x 7.8°	
Digital Magnification	2X-4X-8X	
Detection Range *(0.75m x 1.8m Human Silhouette Target 1.5 cycle)*	1800	-
Detection Range *(2.3m x 2.3m NATO Target)*	700	-
Recognition Range *(0.75m x 1.8m Human Silhouette Target 3.8 cycle)*	3900	
Recognition Range *(2.3m x 2.3m NATO Target)*	1000	
DETECTOR		
	THERMAL	**DAY** *(LOW LIGHT)*
Detector Type	Uncooled µB	CMOS
Detector Resolution	640×512	800×600
Pixel Pitch	12µm	>16µm
NETD	<40mK	-
Image Rate	≥30Hz	
Color Palettes	5 Different Color Palettes	-
Spectral Band	LWIR ***(8–14µm)***	400-1100nm
LASER RANGE FINDER		
Wavelenght	1535nm	
Max Range	≥6km *(2.3m x 2.3m Target)*	
Min. Measurement Range	≤15m	
FEATURES		
Image Processing	Non-Uniformity Correction, Digital Filtering Noise Reduction, Digital Detail Enhancement	
Multimedia	Image and Video Play & Recording	
OLED Resolution	1280×1024	
OLED Type	Colored	
Imaging Options	Low Light / Thermal / Fusion / Color Fusion	
Wifi Connection	YES	
Resolution *(Digital Magnetic Compass)*	0.2°	
Orientation Accuracy *(Digital Magnetic Compass)*	± 1° (RMS)	
GNSS	GPS	
Operating Time	≥8h	
Dimensions ***(L x W x H)***	215 × 200 × 95mm	
Weight ***(Without Accessories)***	<1600g	
ENVIROMENTAL		
Enviormental Standards	MIL-STD 810G-H	
Operating Temperature	-32°C ~ +55°C	
Storage Temprature	-40°C ~ +70°C	

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