



**PORTABLE, LONG-RANGE
HD THERMAL IMAGER**

FLIR Ranger® HDC

The Ranger® HDC is a Real-HD thermal imager with a 1280 x 720 cooled detector. Featuring the FLIR Image Processing Engine, the Ranger HDC provides exceptional long-range thermal imaging performance and 22x continuous optical zoom to maintain situational awareness for effective target assessment. Operators can detect and classify threats day and night in different weather conditions with an optimized FOV.

Designed to support missions for perimeter security, force protection, border surveillance, ISR, training range applications, fixed and mobile surveillance, target tracking, and long-range surveillance, Ranger HDC's cooled detector detects a man-sized target at 10 km and vehicle targets at 20 km. Featuring standard protocols to provide video over IP, Ranger HDC also includes IRIG B synchronization, which enables integration into demanding applications where accurate time stamping and video sync are required.

FEATURES

HIGH-DEFINITION IR AT ITS BEST

Featuring a cooled 1280 x 720 detector, Ranger HDC provides a 16:9 widescreen video image to show more of the scene at a glance.

MORE DETAILS AT LONG RANGE

Ranger HDC supports 22x continuous optical zoom, providing both wide FOV for situational awareness and maintaining target focus during zoom.

RUGGED, FULLY MIL-QUALIFIED

Developed under the unique FLIR CDMQ process (Commercially Developed, Military-Qualified), Ranger HDC is designed for unmatched 24/7/365 reliability.

PENETRATES HEAT TURBULENCE

Merlin ASX anti-turbulence filter removes heat turbulence interference and other noise, allowing for more efficient image processing.

NETWORK ENABLED

TCP/IP interface supports Nexus™ and multiple common standard protocols to provide video over IP.

APPLICATIONS

BORDER SECURITY

COASTAL SURVEILLANCE

FORCE PROTECTION

INDUSTRIAL FACILITY

CRITICAL INFRASTRUCTURE SECURITY

AIR & SEA PORTS

VEHICLE & MAN-PORTABLE CAPABILITIES

SPECIFICATIONS

Thermal Imaging	Ranger HDC 800	Ranger HDC 1200
Detector type	Indium Antimonide (InSb): 1280 x 720 pixels	
Spectral range	3–5 μm	
Field-of-view	1.35° (H) to 30° (H), ($\pm 7\%$), 16:9 format	0.92° (H) to 20.4° (H), ($\pm 7\%$), 16:9 format
Focus	One Shot Autofocus and Manual	
Continuous Zoom options	Optical zoom 22x Digital zoom 16x	
Image processing	FLIR Image Processing Engine with advanced Digital Detail Enhancement (ADE/DDE), Histogram Equalization	
System interfaces		
Video out	HD SDI according to SMPTE 292M GigE IP: H.264	
Command and Control	TCP/IP, Gigabit Ethernet 1000 BASE-T, Nexus, and multiple standard protocols, 4-wire RS-485	
Power		
Input power	18-32 VDC. MIL-STD 1275D (Normal Operating mode) 31 V recommended	
Power consumption	<i>When supplied with 28 VDC the power consumption is less than:</i> - 110 W max during cool down, excluding defroster - 190 W max during cool down, including defroster (max value during the power consuming condition of cool down in combination with defroster, several minutes) - 90 W average after cool down, excluding defroster - 170 W average after cool down, including defroster - 240 W peak including cool down and defroster (Intermittent condition with all optical servos in motion, < 6 sec)	
Environmental		
Operating temperature range	-40°C to +60°C (-40°F to +140°F)	
Storage temperature range	-46°C to +71°C (-50.8°F to +160°F)	
Standards	MIL-STD 810G	
IP rating	IP66	
Window defrosting	Yes	
Automatic climate control	Day camera: Yes	
Physical Characteristics of Camera		
Height	<325 mm (12.8 inch)	
Width	<270 mm (10.6 inch)	
Depth	<630 mm (24.8 inch)	
Weight	21 kg (46.3 lb)	
Physical Characteristics of Camera with Lens Cover		
Height with cover open	<365 mm (14.4 inch)	
Height during cover operation	<410 mm (16.1 inch)	
Width	<310 mm (12.2 inch)	
Depth with cover open	<650 mm (25.6 inch)	
Depth with cover closed	<670 mm (26.4 inch)	
Depth during cover operation	<740 mm (29.1 inch)	
Weight	<22.5 kg (49.6 lb.)	



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The World's Sixth Sense®