

ROGUE

Rugged, Mobile Surveillance

INFINITI

Designed for versatility and rugged all-weather performance on land and maritime applications, the Rogue provides a high level of customizability; offering multiple night vision options, 12MP/4K spotter modules, and LRFs (Laser Range Finders) rated for distances up to 21km. For enhanced night vision, it can be equipped with SD or HD thermal sensors, enabling vehicle detection up to 5km. The visible sensor also seamlessly integrates with either ZLID™ laser IR, ZIR (Zoom LED IR), or ZWL (Zoom White Light) illumination, providing high-definition nighttime performance up to 750m in complete darkness. The Rogue is our most compact PTZ that supports our Octagon API with absolute positioning, this enables radar slew-to-cue and other basic tracking applications.

Key Features:

- › Up to 12MP 4K High Resolution Sensors
- › Impressive Visible Zoom Options from 3X to 30X
- › Optical Field of View Options from 74° to 2.14°
- › 12μm 640×480 VOx Uncooled Thermal Imager or Optional 384×288 or 1024×768 Thermal Resolutions
- › Eye Safe Active IR LED Illumination up to 180m or Optional ZLID Illumination for up to 750m of Night Vision
- › Integrated LRF (Laser Rangefinder) Rated up to 21km
- › Video, Power and Telemetry Over a Single Rugged Cable
- › Rugged IP66 and up to -30° to +65°C Weather Resistance

Optional Features:

- › Magnetic Mount
- › Vibration Mount
- › Internal Storage
- › 940nm “Stealth” ZLID™ Illumination
- › Nano Coating for Viewing Window
- › Zoom White Light LED Illumination



The image shows the Infiniti Electro-Optics Rogue PTZ camera unit, a black, cylindrical device with a large lens and a smaller sensor. It is mounted on a base with a rugged cable connector. The background is a blurred outdoor scene with a vehicle tire visible on the right.

5mm-40 8X 8MP	5mm-120 24X 4MP	80m	13mm LWIR	
6.6mm-132 20X 8MP	180m	25mm LWIR	4.2km	
4.7mm-141 30X 4MP	500m ZLID™	35mm LWIR	7.1km	
4.8mm-144 30X 2MP	750m ZLID™	55mm LWIR	21km	
Multiple Zoom Lens Options up to 144mm	Optional IR Illumination up to 750m	Optional Thermal Imaging	Optional LRF up to 21km Ext. Range	Waterproof with Military Connectors
				Rugged & Mobile Ready
				PTZ
				Remote Pan/Tilt/Zoom Control

THE ROGUE'S Visible/NIR and Thermal Cameras



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VIS/NIR Optical Camera

Infiniti's VIS/NIR zoom cameras utilize high-end CMOS sensors to offer excellent spectral sensitivity in the visible and near-infrared wavelengths of light to provide high-quality images optimized for long-range surveillance. They are designed to provide industry-leading performance and quality, with image resolutions ranging from 2MP (1080p HD) to 8MP (4K UHD) and 12MP. Precision engineered IR-corrected continuous zoom lens options offer range of focal lengths with zoom factors from 3X up to 30X optical zoom. At full zoom, our longest range 30X lens option has the equivalent field of view of a "full-frame" DSLR camera with a 950mm lens.

IR LED or ZLID™ Night Vision

The Rogue offers an 80m IR LED or up to a 180m Zoom IR array for eye-safe illumination options. For further ranges, Infiniti's ZLID (Zoom Laser IR Diode) technology synchronizes the IR intensity and area illumination with the zoom lens for outstanding active IR performance for clear images in complete darkness with illumination up to 750m.

Our optional 940nm "Stealth" ZLID offers covert illumination that is completely invisible to the human eye, with no red glow visible (808nm will often have a faint red glow at the light source).

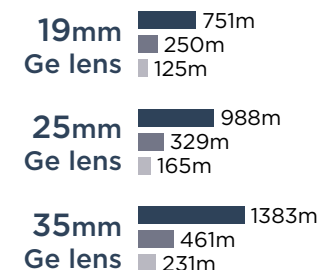
See Further with Thermal

An optional thermal imager lets you see further than any other night vision technology. Unlike traditional visible cameras, thermal imaging uses heat rather than light to see objects. Humans, animals, and vehicles are hot in contrast to most backgrounds, making trespassers hiding in shadows or bushes easy to spot. Thermal images are also unaffected by bright light and have the ability to see through atmospheric obstructions such as smoke, dust, and light fog. This makes it an ideal technology for many applications, including surveillance and security, search and rescue, fire, marine and land navigation, wide area situational assessment and much more.

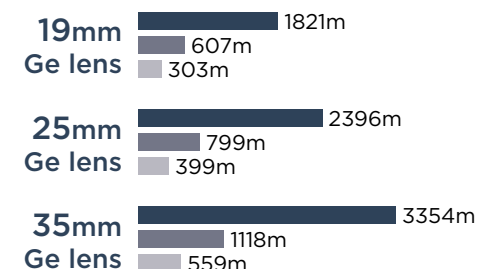
12μm VOx Thermal Imager

The Rogue's LWIR sensor options use a cutting-edge 12μm VOx uncooled sensor, giving the camera a narrower field of view without changing the lens. The smaller 12μm pixel pitch achieves a 40% further range than 17μm sensors or 200% further range than older 25μm sensors. The high-sensitivity sensor detects differences in temperature as small as $\pm 0.05^{\circ}\text{C}$, and its no-maintenance VOx design, unlike other thermal cores, is self healing and resistant to solar damage.

Human DRI:



Vehicle DRI:



 **DETECTION***
 **RECOGNITION***
 **IDENTIFICATION***

*DRI detection ratings are based on industry-wide standards (Johnson's Criteria) that can be misleading if not properly understood. For more information, please see our whitepaper about understanding DRI measurements at: www.infinitioptics.com/dri

THE ROGUE'S Additional Features and Options

Customized Rapid Deployment Kits

Our Rapid Deployment Kits allow for safe transportation and ultra fast setup and operation of Infiniti surveillance PTZs. RDKs can be customized for a wide variety of applications including basic configurations for transport cases only or a fully customized remote control kit with an integrated monitor, NVR/ server for recording, WiFi/4G connectivity, tripods, and battery backups.

These kits are an excellent rapid deployment solution for military, law enforcement and other applications where every minute counts.



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Vibration Mount

The Rogue can be ordered with a heavy duty wire rope vibration mount for mobile applications. This provides increased vibration isolation compared to standard rubber vibration mounts.

Magnetic Mount

Open up a world of possibilities for mounting the Rogue in the perfect position at a moment's notice. The built-in magnetic mount offers more flexibility with the option to quickly mount on a vehicle, tripod plate, or other metal surface with no tools or screws required for setup. The powerful magnets make the Rogue quick and easy to install and adjust for optimal positioning.



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Visible Camera Options



		4MP 30X	8MP 20X	4MP 24X	2MP 30X	8MP 8X	12MP 3X Wide Angle**
Simulated FOV @ 1km							
Pixels Per Meter @ 1km		72ppm	66ppm	60ppm	50ppm	27.5ppm	9.4ppm
DORI	D: 25ppm	2,873m Detection	2,640m Detection	2,394m Detection	1,982m Detection	1,101m Detection	390m Detection
	O: 62ppm	1,158m Observation	1,065m Observation	965m Observation	799m Observation	444m Observation	157m Observation
	R: 125ppm	575m Recognition	528m Recognition	479m Recognition	396m Recognition	220m Recognition	78m Recognition
	I: 250ppm	287m Identification	264m Identification	239m Identification	198m Identification	110m Identification	39m Identification
Output Resolution		4MP @ 30fps (2688x1520)	8MP/4K @ 30fps (3840x2160)	4MP @ 30fps (2688x1520)	2MP/1080p @ 30fps (1920x1080)	8MP/4K @ 30fps (3840x2160)	12MP/4K @ 20fps (4000x3000)
Image Sensor		4.1 Megapixel 1/2.9" CMOS	8.4 Megapixel 1/1.8" W CMOS	4.1 Megapixel 1/2.9" CMOS	2.4 Megapixel 1/2.8" CMOS	8.4 Megapixel 1/2.8" CMOS	12.9 Megapixel 1/2.3" CMOS
Lens*	Focal Length	4.7-141mm	6.6-132mm	5-120mm	4.8-144mm	5-40mm	3.9-14.5mm
	Optical Zoom	30X Optical Zoom + 16X Digital	8X Optical Zoom + 16X Digital	24X Optical Zoom + 16X Digital	30X Optical Zoom + 16X Digital	8X Optical Zoom + 16X Digital	3.5X Optical Zoom + 16X Digital
	Angle of View	67.9°-2.14° Horizontal (0.54° with 4X Digital Zoom)	62.5°-3.3° Horizontal (0.42° with 8X Digital Zoom)	56.6°-2.57° Horizontal (0.64° with 4X Digital Zoom)	69.8°-2.22° Horizontal (0.56° with 4X Digital Zoom)	58.3°-8.0° Horizontal (1.0° with 8X Digital Zoom)	74.6°-24.0° Horizontal (3.0° with 8X Digital Zoom)
	Focus	Auto/Manual	Auto/Manual/Semi-Auto	Auto/Manual	Auto/Manual	Auto/Manual/Semi-Auto	Auto/Manual/Semi-Auto
Minimum Illumination		Color: 0.005 Lux @ f/1.5; B&W: 0.0005 Lux @ f/1.5	Color: 0.01 Lux @ f/1.5; B&W: 0.001 Lux @ f/1.5	Color: 0.005 Lux @ f/1.5; B&W: 0.0005 Lux @ f/1.5	Color: 0.005 Lux @ f/1.5; B&W: 0.0005 Lux @ f/1.5	Color: 0.01 Lux @ f/1.5; B&W: 0.001 Lux @ f/1.5	Color: 0.5 Lux @ f/2.4; No dedicated B&W low-light
Optical Fog Filter (NIR)		No	No	No	No	No	No
Heatwave Mitigation		No	Optional	No	No	No	No
NDAA Compliant		Yes	Yes	Yes	Yes	Yes	Yes
Video Network	Compression	H.265/H.264/MJPEG					
	Protocol	ONVIF, HTTP, RTSP, RTP, TCP, UDP					
Image Stabilization		Electronic Image Stabilization (EIS)					
Image Enhancements		Auto White Balance, WDR, 2D/3D DNR, BLC, HLC, Digital Defog					
Edge Storage		Supports MicroSD Card up to 256GB					

*Lens measurements and angle of view are accurate to ±10% due to back focus distances, sensor sizes, lens manufacturing, etc. **Note that the 12MP 3X Wide Angle camera option does not work with IR or ZLID illumination.

ZLID™/IR Illumination Options

	80m IR	180m ZIR	180m ZWL	500m ZLID	500m Stealth* ZLID	750m ZLID	750m Stealth* ZLID
Illumination Distance	80m	180m	180m	500m	500m	750m	750m
Wavelength	808nm	808nm	White Light	808nm	940nm	808nm	940nm
NOHD	0m (eye safe at any distance)			18.4m	13.6m	26m	17.5m

*808nm IR light is invisible to the human eye, however the light source will still be visible as a faint red dot. Our optional 940nm "Stealth" ZLID offers covert illumination that is completely invisible to the human eye, with no red glow visible even at the light source.

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Thermal Camera Options



	9mm	13mm	19mm	25mm	35mm**	55mm**
Image Sensor	Uncooled Vanadium Oxide (VOx) Microbolometer, 30Hz or 9Hz upon request					
Resolution	384×288, 640×512 or 1280×1024 pixels					
Pixel Pitch	12µm (Over 200% further range than 25µm sensors, 40% further range than 17µm sensors)					
Lens	9mm f/1.2	13mm f/1.2	19mm f/1.0	25mm f/1.0	35mm f/1.0	55mm f/1.0
Focus	Athermalized					
Field of View	384×288	28.7° Horizontal FOV	20.1° Horizontal FOV	13.8° Horizontal FOV	10.5° Horizontal FOV	7.53° Horizontal FOV
	640×512	46.2° Horizontal FOV	32.9° Horizontal FOV	22.9° Horizontal FOV	17.5° Horizontal FOV	12.5° Horizontal FOV
	1280×1024	81° Horizontal FOV	61.1° Horizontal FOV	44° Horizontal FOV	34.2° Horizontal FOV	24.8° Horizontal FOV
Human DRI Ratings*	356m	119m	59m	514m	171m	86m
Vehicle DRI Ratings*	863m	288m	144m	1,246m	415m	208m
Spectral Range	7,000–14,000nm (LWIR)					
Thermal Sensitivity	20–30mK					
Image Display Modes	White Hot					

** 35mm or 55mm thermal lenses may not be possible with some payload combinations. Please contact Infiniti for details.

* **D R I** DRI detection ratings are based on industry-wide standards (Johnson's Criteria) that can be misleading if not properly understood. For more information, please see our whitepaper about understanding DRI measurements at: www.infinitioptics.com/dri

Optional Laser Rangefinder

	LRF4	LRF7	LRF20	LRF21
Extended Range	4.2km	7.1km	20km	21km
Range to NATO Vehicle*	3.5km	6km	8km	10km
Range to Human*	2km	3.8km	4km	5km
Wavelength	1530nm (±5)			
Precision**	0.1-1.5m		0.2-2.5m	

Some options may not be available depending on configuration. *Range performance is dependent on distance and target reflectivity. Calculated using NATO Vehicle size of 2.3×2.3m, Human size of 0.5×1.8m, with target visibility 25km, maximum measuring time, target reflectivity 30%, detection probability 90%. Depending on received signal level. Up to three (3) targets: First, Second and Third. See our LRF brochure for more information **LRF accuracy is based on ideal conditions. See our LRF brochure for more information.

Additional System Specifications

Pan/Tilt Mechanical

Pan Angle & Speed	360° Continuous, up to 90°/sec
Tilt Angle & Speed	-30° to +90°, up to 30°/sec
Absolute Positioning	Available via RS485/Pelco-D and Octagon HTTP API
Physical	
Construction	High Strength Aluminum Alloy (optional anti-corrosive coating)
Weight	< 4.8kg (without vibration mount)

Environmental

Operational Temperature	0°C to +65°C, <90% Relative Humidity (-30°C to +65°C optional)
Environmental	IP66 Weatherproof Housing
Electrical	
Input Voltage	12VDC
Power Consumption	Max 60W (will change depending on configuration)

Brochure specifications subject to change.

WWW.INFINITIOPTICS.COM

1-866-969-6463

INFO@INFINITIOPTICS.COM

ROGUE Dimensions

