

TRITON

Rugged, Mobile Surveillance

The Triton is a small, rugged portable PTZ camera featuring various visible sensor options with up to 30X day/night zoom and resolutions up to 12 Megapixels. This compact unit packs both wide-angle and long-range imaging capabilities, and optional thermal imaging allows for advanced detection of humans and vehicles, even in complete darkness.

All of this comes in a rugged aluminum weather-ready enclosure, making the Triton an excellent choice for marine and vehicle deployments for police, navy, militaries and more around the world.

Key Features:

- › Single-Sensor or Multi-Sensor Integrated PTZ System
- › Impressive Visible Zoom Options from 3X to 30X
- › Optical Field of View Options from 74° to 2.2°
- › 12μm 640×480 VOx Uncooled Thermal Imager or Optional 384×288 Resolution
- › Active IR LED for 50m of Covert Illumination or Optional ZLID Illumination for up to 500m of Night Vision
- › Rugged Mobile-Ready Design
- › Military Connector Supplies Video, Power and Telemetry Over a Single Cable
- › Rugged IP66 and -40° to +65°C Weather Resistance

Optional Features:

- › Magnetic Mount
- › GPS & 4G Cellular Transmission
- › Vibration Mount
- › Integrated Internal Storage
- › Nano Coating for Viewing Window

Note: As an Infiniti Lite system, the Triton is built for hands-on manual control via joystick or mouse and does not support our Octagon API for network control. Step up to the Octagon-Enabled Rogue series when you need absolute positioning, radar slew-to-cue, or full API/network integration for control.

 **INFINITI** LITE



5mm-40
8X 8MP

13 mm
LWIR

4.8mm-144
30X 2MP

50m

19 mm
LWIR

5mm-120
24X 4MP

300m
ZLID™

25 mm
LWIR

4.7mm-141
30X 4MP

500m
ZLID™

35 mm
LWIR

IP66

Rugged & Mobile

PTZ
Pan/Tilt/Zoom Control

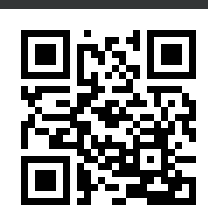
Multiple Zoom Lens Options up to 141mm

Optional IR Illumination up to 500m

Optional Thermal Imaging

Weatherproof with Military Connectors

View the Triton on our website:



THE TRITON'S Visible/NIR and Thermal Cameras



VIS/NIR Optical Camera

Infiniti's Visible/NIR zoom cameras utilize high-end CMOS sensors to offer excellent spectral sensitivity in the visible (color) 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 a range of focal lengths with 3X up to 30X optical zoom and integrated rapid autofocus to allow for long-range surveillance of targets without operator intervention or wide angle situational awareness.

IR LED Array Night Vision

The Triton's LED arrays provide up to 50m (160ft) of IR illumination. The LEDs have integrated optical collimators that shape the IR light to eliminate hot spots and washouts, resulting in a more consistent and even illumination and ensuring 24/7 day night imaging even in complete darkness.

The Triton can also be customized with white light LEDs, or military-grade 940nm "stealth" IR that eliminates the red glow typically present with IR illumination, for more covert surveillance and reconnaissance.

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.

12 μ m VOx Thermal Imager

The Triton's LWIR sensor options use a cutting-edge 12 μ m VOx uncooled sensor, giving the camera a narrower field of view without changing the lens. The smaller 12 μ m pixel pitch achieves a 40% further range than 17 μ m sensors or 200% further range than older 25 μ m 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:

5mm Thermal	■ 198m ■ 66m ■ 33m
19mm Thermal	■ 751m ■ 250m ■ 125m
35mm Ge lens	■ 1383m ■ 461m ■ 231m

Vehicle DRI:

5mm Thermal	■ 479m ■ 160m ■ 80m
19mm Thermal	■ 1821m ■ 607m ■ 303m
35mm Thermal	■ 3354m ■ 1118m ■ 559m

- 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 TRITON'S

Additional Features and Options

 INFINITI

Customized Rapid Deployment Kits

Our Rapid Deployment Kits allow for safe transportation and ultra fast setup and operation of Infiniti surveillance PTZ camera systems.

RDKs can be customized for a wide variety of applications, including basic configurations for transport cases only or a fully customized view-and-control kit with an integrated monitor, NVR/server

for recording, WiFi/4G connectivity for remote viewing or control, tripods, and battery backups.

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



Battery Power

An optional battery can provide 6 to 8 hours of remote viewing and control on a single charge for completely wire-free operation.



Wireless Connectivity

Optional WiFi connectivity allows the camera to be viewed and controlled over a wireless network connection for quick deployment and use without requiring a cable installation.

Magnetic Mount

A built-in magnetic mount opens up a world of possibilities for mounting your Triton in the perfect position at a moment's notice. This feature gives users flexibility with the ability to quickly mount a Triton on a vehicle, tripod plate, or other metal surface with no tools or screws required. The powerful magnets make the Triton fast and secure to install and easy to 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)	4K @ 30fps (3840x2160)	4MP @ 30fps (2688x1520)	1080p @ 30fps (1920x1080)	4K @ 30fps (3840x2160)	12MP @ 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 x 16X Digital Zoom	20X Optical Zoom x 16X Digital Zoom	24X Optical Zoom x 16X Digital Zoom	30X Optical Zoom x 16X Digital Zoom	8X Optical Zoom x 16X Digital Zoom	3.5X Optical Zoom x 16X Digital Zoom
	Angle of View	67.9°-2.14° Horizontal	62.5°-3.3° Horizontal	56.6°-2.57° Horizontal	60.3°-2.22° Horizontal	58.3°-8.0° Horizontal	74.6°-24.0° Horizontal
	1080p Equiv.†	42X, 1.53° HFOV	40X, 1.65° HFOV	33X, 1.84° HFOV	30X, 2.22° HFOV	16X, 4.0° HFOV	7X, 11.5° HFOV
	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)					None 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. †Zoom ratio and FOV equivalent if zooming into a 1080p crop of the video output.

ZLID™/IR Illumination Options

	50m IR	50m Stealth* IR	300m ZLID	500m ZLID
Illumination Distance	50m	50m	300m	500m
Wavelength	808nm	940nm	808nm	808nm
NOHD	0m (eye safe at any distance)	0m (eye safe at any distance)	15m	18.4m

*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" IR 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



	5TI			9TI			13TI			19TI			25TI**			35TI**		
Image Sensor	Uncooled Vanadium Oxide (VOx) Microbolometer, 30Hz or 9Hz upon request																	
Resolution	640×512 pixels																	
Pixel Pitch	12µm (Over 200% further range than 25µm sensors, 40% further range than 17µm sensors)																	
Lens	5mm f/1.0			9mm f/1.0			13mm f/1.0			19mm f/1.0			25mm f/1.0			35mm f/1.0		
Focus	Athermalized																	
Field of View	75° Horizontal FOV			46.2° Horizontal FOV			32.9° Horizontal FOV			22.9° Horizontal FOV			17.5° Horizontal FOV			12.5° Horizontal FOV		
Human DRI Ratings*	198m	66m	33m	356m	119m	59m	514m	171m	86m	751m	250m	125m	988m	329m	165m	1,383m	461m	231m
Vehicle DRI Ratings*	479m	160m	80m	863m	288m	144m	1,246m	415m	208m	1,821m	607m	303m	2,396m	799m	399m	3,354m	1,118m	559m
Spectral Range	8,000-14,000nm (LWIR)																	
Thermal Sensitivity	20-35mK																	
Image Display Modes	White Hot, Black Hot, Red Hot, other color palettes available upon request																	

** 25mm & 35mm thermal lens options can not be combined with a visible light camera, these Triton models will have thermal imaging only.

* **D R I** While DRI ratings are based on the industry-standard Johnson's Criteria, they represent theoretical maximums under ideal conditions that typically exceed real-world performance. Additionally, a "Detection" rating means that a target will appear only as a tiny speck of pixels, rather than as a clearly defined or recognizable object. For more info, please see our whitepaper about understanding DRI at: www.infiniti-optics.com/dri

Additional System Specifications

Pan/Tilt Mechanical

Pan Angle & Speed	360° Continuous, up to 80°/sec
Tilt Angle & Speed	-25° to +90°, up to 60°/sec
Absolute Positioning	Not supported
Octagon Enabled	No

Physical

Construction	High Strength Aluminum Alloy w/anti-corrosive coating
Weight	<2.8kg (will change depending on configuration)

Environmental

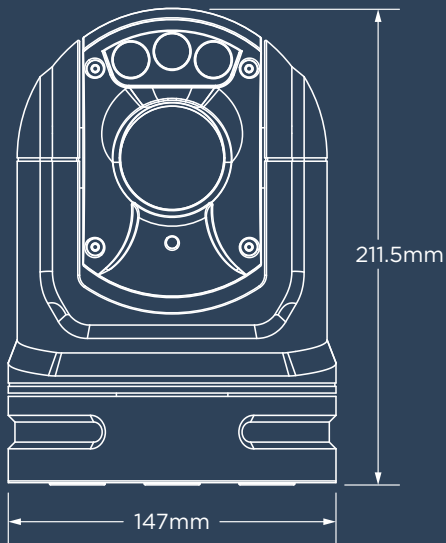
Operational Temperature	-40°C to +65°C
Environmental	IP66 Weatherproof Housing

Electrical

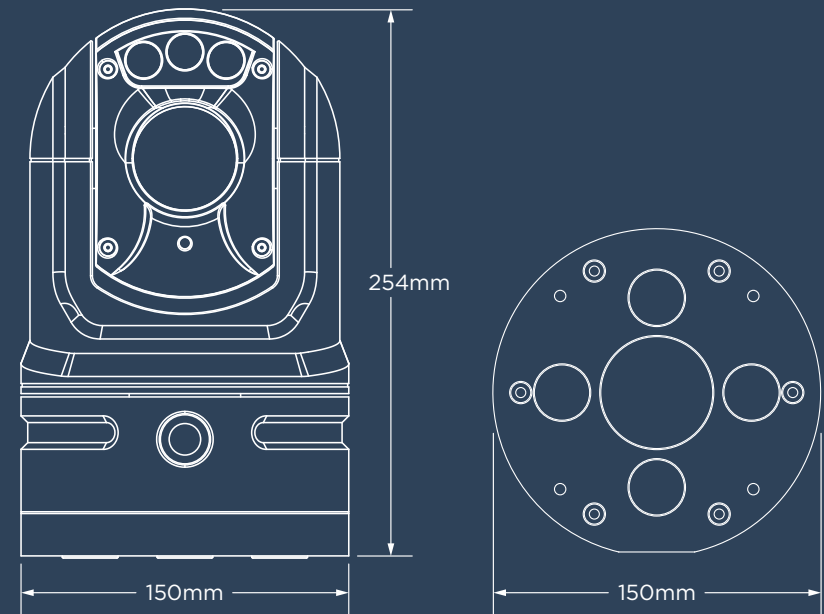
Input Voltage	12VDC
Power Consumption	<20W (will change depending on configuration)

Specifications subject to change due to global supply chain constraints and material availability.

TRITON
Dimensions



STANDARD TRITON



BATTERY TRITON