

ECLIPSE

All-Weather Long-Range PTZ Camera

INFINITI

The Eclipse boasts numerous zoom lens options with focal lengths up to 510mm, and multiple sensor resolutions available from Full-HD up to 4K/8MP. Paired with up to 2000m of ZLID™ illumination or a day/night thermal camera up to 275mm, this camera system offers remarkable day and nighttime surveillance performance. All of these sensors are integrated into a rugged IP66 weatherproof housing constructed of strengthened aluminum. The Eclipse can withstand some of the harshest climates, making it ideal for perimeter security, homeland defense, and coastal protection.

Key Features:

- › Long-Range Day/Night PTZ Camera System
- › 2MP, 4MP, 5MP or 8MP High-Resolution CMOS Sensor
- › HD Lens with 30X, 36X, 49X or 88X Optical Zoom
- › Optical Field of View Options ranging from 75° to 0.86°
- › ZLID™ for up to 2km Night Vision in Complete Darkness
- › LWIR Thermal Imaging for Long-Range Detection* up to 11km or MWIR Thermal for Long-Range Detection* up to 20km
- › Integrated Heater for Operation in -30°C to +60°C
- › Wiper and Rugged IP66 Weatherproof Housing
- › High Resolution Pan/Tilt for Smooth Operation
- › Pelco-D and RS485 Control
- › Integrated Optical Fog Filter on select models

Optional Features:

- › Magnetic Mount
- › GPS & 4G Cellular Transmission
- › Vibration Mount
- › Integrated Internal Storage
- › Laser Rangefinder
- › Wide-Angle 90° 4K Spotter Camera



4.7mm-
141
30X 4MP

6mm-
218
36X 4MP

35
mm
LWIR

6mm-
180
30X 8MP

500m
ZLID™

55
mm
LWIR

6mm-
218
36X 8MP

750m
ZLID™

120
mm
LWIR

5.8mm-
510
88X 2MP

1km
ZLID™

26mm-
75mm
LWIR

5.6mm-
272
49X 8MP

2km
ZLID™

19mm-
275
MWIR



Rugged &
Mobile Ready

PTZ Controls



IP66
Waterproof
with Military
Connectors

Multiple Zoom
Lens Options
up to 510mm

Optional IR
Illumination
up to 2km

Optional
Thermal up to
275mm Zoom



View the Eclipse on our website:

THE ECLIPSE'S Visible/NIR HD Zoom Camera

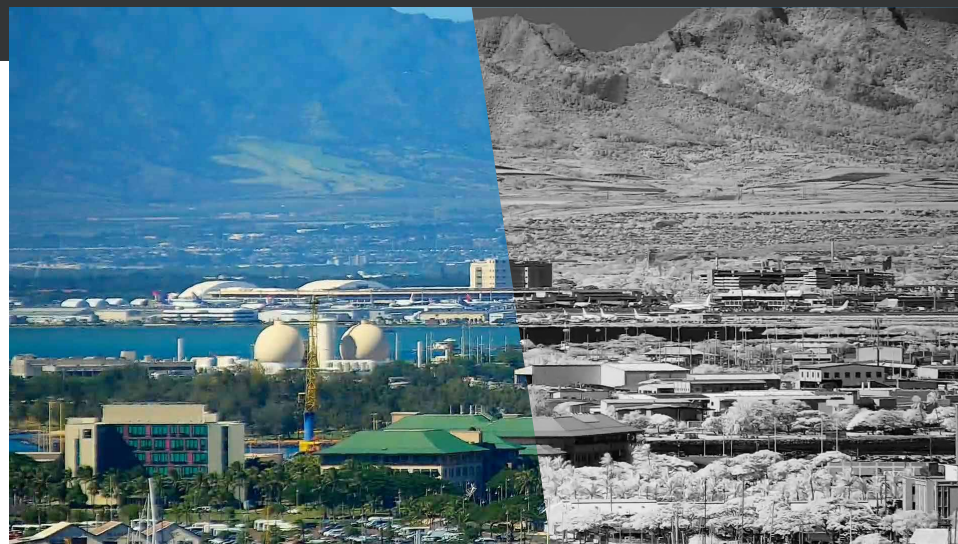


VIS/NIR Optical Camera

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 HD 2MP (1080p) to UltraHD 4K/8MP.

Continuous Zoom Lenses

The Eclipse's precision engineered IR-corrected zoom lenses are built with high quality optical glass and feature integrated rapid auto focus. We offer a wide range of focal lengths with zoom factors from 30X up to 88X optical zoom. At full zoom, our longest range 88X lens option has the equivalent field of view of a "full-frame" DSLR camera with a 2,390mm lens.



Standard Color Visible Image
(Optical Fog Filter Disabled)

NIR Image
(Optical Fog Filter Enabled)

Optical Fog Filter (NIR Only Mode)

While all of our sensors offer a nighttime NIR + visible mode for optimized sensitivity in low light, the cameras equipped with our NIR bandpass filter (also referred to as a "fog filter") allow users to isolate the NIR (near-infrared) wavelength of light during the day for clearer long-range daytime imaging.

Long-range imaging needs to see through large amounts of atmosphere which often contains particulates like smoke, haze/fog, and other atmospheric distortions. Cutting out the visible wavelength and isolating the NIR can mitigate the effects of smoke, haze and light fog, producing an image with better contrast and less distortion. Our optical fog filter lenses incorporate a motorized filter that is used with the camera's monochrome mode and de-haze image processing to see through smoke, smog and haze.

THE ECLIPSE'S ZLID™ & Thermal Technologies



See in the Dark with ZLID™

IR illumination allows for detailed video when there isn't enough natural light, however common IR LED illuminators have very limited ranges. For long-range illumination, a laser is needed. Many laser illuminators overexpose the center of the screen and leave the edges dark. Infiniti's ZLID (Zoom Laser IR Diode) technology synchronizes the IR intensity and area illumination with the zoom lens for outstanding active IR performance, eliminating over-exposure, washout, and hot-spots for clear images in complete darkness.

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.



Thermal Image

12μm VOx Thermal Imager

The Eclipse utilizes 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 ASI and other thermal cores, is self healing and resistant to solar damage.

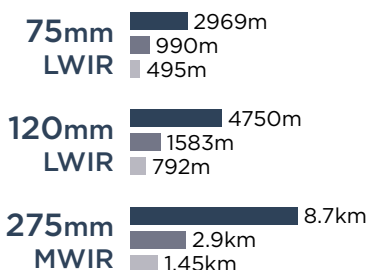
Germanium Lenses

Our germanium optics boast industry-leading aperture sizes. These larger apertures allow more thermal energy to reach the sensor, reducing image noise and further increasing clarity and performance.

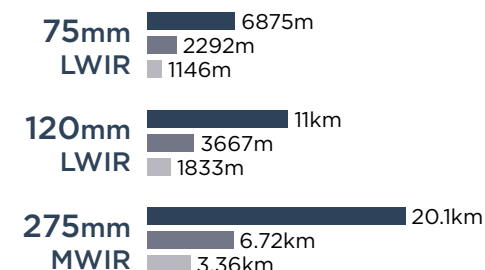


ZLID Image

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

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Visible Camera Options



| | | 8M-49X | 88X | 8M-36X | 4M-49X | 8M-30X | 4M-36X | 49X | 4M-30X |
|--------------------------|---------------|--|---|---|---|---|---|---|---|
| Simulated FOV @ 1km | | | | | | | | | |
| Pixels Per Meter @ 1km | | 136ppm | 128ppm | 109ppm | 93ppm | 90ppm | 75ppm | 73ppm | 72ppm |
| DORI | D: 25ppm | 5,440m Detection | 5,100m Detection | 4,360m Detection | 3,721m Detection | 3,600m Detection | 2,982m Detection | 2,900m Detection | 2,873m Detection |
| | O: 62ppm | 2,194m Observation | 2,056m Observation | 1,758m Observation | 1,500m Observation | 1,452m Observation | 1,202m Observation | 1,170m Observation | 1,170m Observation |
| | R: 125ppm | 1,088m Recognition | 1,020m Recognition | 872m Recognition | 744m Recognition | 720m Recognition | 596m Recognition | 580m Recognition | 575m Recognition |
| | I: 250ppm | 563m Identification | 510m Identification | 436m Identification | 372m Identification | 360m Identification | 298m Identification | 290m Identification | 287m Identification |
| Output Resolution | | 4K @ 30fps (3840×2160) | 2MP/1080p @ 30fps (1920×1080) | 8MP/4K @ 30fps (3840×2160) | 4MP @ 60fps (2688×1520) | 8MP/4K @ 30fps (3840×2160) | 4MP @ 60fps (2688×1520) | 2MP/1080p @ 30fps (1920×1080) | 4MP @ 30fps (2688×1520) |
| Image Sensor | | 8.4 Megapixel 1/1.8" W CMOS | 8.4 Megapixel 1/1.8" W CMOS | 8.4 Megapixel 1/1.8" W CMOS | 4.1 Megapixel 1/1.7" W CMOS | 8.4 Megapixel 1/1.8" W CMOS | 4.5 Megapixel 1/1.7" W CMOS | 2.1 Megapixel 1/2" W CMOS | 4.1 Megapixel 1/2.9" CMOS |
| Lens* | Focal Length | 5.6-272mm f/1.4-4.5 | 5.8-510mm | 6-218mm | 5.6-272mm f/1.4-4.5 | 6-180mm f/1.5-4.3 | 6-218mm | 5.6-272mm f/1.4-4.5 | 4.7-141mm |
| | Optical Zoom | 49X Optical Zoom + 16X Digital | 88X Optical Zoom + 16X Digital | 36X Optical Zoom + 16X Digital | 49X Optical Zoom + 16X Digital | 30X Optical Zoom + 16X Digital | 36X Optical Zoom + 16X Digital | 49X Optical Zoom + 16X Digital | 30X Optical Zoom + 16X Digital |
| | Angle of View | 75°-1.62° Horizontal | 65°-0.86° Horizontal | 65.2°-2° Horizontal | 76°-1.66° Horizontal | 65°-2.44° Horizontal | 66°-2.07° Horizontal | 71.5°-1.52° Horizontal | 67.9°-2.14° Horizontal |
| | Focus | Auto / Manual | Auto / Manual | Auto/Manual | Auto/Manual | Auto/Manual | Auto/Manual | Auto/Manual | Auto/Manual |
| Minimum Illumination | | Color: 0.05 Lux; B&W: 0.005 Lux @ f/1.4 | Color: 0.05 Lux; B&W: 0.005 Lux @ f/1.4 | Color: 0.1 Lux; B&W: 0.01 Lux @ f/1.5 | Color: 0.005 Lux; B&W: 0.0005 Lux @ f/1.4 | Color: 0.1 Lux; B&W: 0.01 Lux @ f/1.5 | Color: 0.005 Lux; B&W: 0.0005 Lux @ f/1.6 | Color: 0.001 Lux; B&W: 0.0001 Lux @ f/1.6 | Color: 0.005 Lux; B&W: 0.0005 Lux @ f/1.5 |
| Optical Fog Filter (NIR) | | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Heatwave Mitigation | | No | Yes | No | No | No | No | No | No |
| NDAA Compliant | | Yes | Optional | Yes | No | Yes | Yes | Optional | Yes |
| Video Network | Compression | H.265/H.264/MJPEG | | | | | | | |
| | Protocol | ONVIF, HTTP, RTSP, RTP, TCP, UDP | | | | | | | |
| Image Stabilization | | Electronic Image Stabilization (EIS) | | | | | | | |
| Image Enhancements | | White Balance, WDR, 2D/3D DNR, BLC, HLC, Digital Defog | | | | | | | |
| Edge Storage | | Supports MicroSD Card up to 256GB | | | | | | | |

*Lens measurements, angle of view and PPM/DORI numbers are accurate to ±10% due to back focus distances, sensor sizes, lens manufacturing, etc.

ZLID™ Illumination Options

| | 150m IR | 150m White | 500m ZLID | | 750m ZLID | | 1000m ZLID | | 1500m ZLID | | 2000m ZLID | |
|-----------------------|-------------------------------|-------------|-----------|-------|-----------|-------|------------|-------|------------|-------|------------|-------|
| Illumination Distance | 150m | 150m | 500m | | 750m | | 1000m | | 1500m | | 2000m | |
| Wavelength | 808nm | White Light | 850nm | 940nm | 808nm | 940nm | 808nm | 940nm | 808nm | 940nm | 808nm | 940nm |
| NOHD | 0m (eye safe at any distance) | | 8.5m | 6.9m | 13m | 9.6m | 50m | 36.6m | 56.4m | 45.2m | 69m | 51m |

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Thermal Camera Options

| | 19mm Fixed | | | 35mm Fixed | | | 55mm Fixed | | | 75mm Fixed | | | 120mm Fixed | | | 26-75mm Zoom | | | 19-275mm MWIR Zoom | | |
|--------------------------|---|------|------|----------------------|-------|------|---------------------|-------|------|---------------------|-------|-------|---------------------|-------|-------|----------------------------------|-------|-------|---------------------------|-------|--------|
| Image Sensor | Uncooled Vanadium Oxide (VOx) Microbolometer, 30Hz or 9Hz upon request | | | | | | | | | | | | | | | InSb Cooled Thermal Imager, 30Hz | | | | | |
| Resolution | 640×512/640×480 pixels or 384×288 pixels | | | | | | | | | | | | | | | 640×512 pixels | | | | | |
| Pixel Pitch | 12µm (Over 200% further range than 25µm sensors, 40% further range than 17µm sensors) | | | | | | | | | | | | | | | 15µm | | | | | |
| Lens | 19mm | | | 35mm | | | 55mm | | | 75mm | | | 120mm | | | 26-75mm Continuous Zoom | | | 19-275mm Continuous Zoom | | |
| Focus | Athermalized | | | Athermalized | | | Motorized Focus | | | Motorized Focus | | | Motorized Focus | | | Motorized Autofocus | | | Motorized Autofocus | | |
| Field of View on 640×512 | 22.9° Horizontal FOV | | | 12.5° Horizontal FOV | | | 8.0° Horizontal FOV | | | 5.9° Horizontal FOV | | | 3.7° Horizontal FOV | | | 16.8°-5.9° Horizontal FOV | | | 28.4°-2.0° Horizontal FOV | | |
| Field of View on 384×288 | 13.8° Horizontal FOV | | | 7.5° Horizontal FOV | | | 4.8° Horizontal FOV | | | 3.5° Horizontal FOV | | | 2.2° Horizontal FOV | | | 10.1°-3.5° Horizontal FOV | | | N/A | | |
| Pixels Per Meter @ 1km | 1.6ppm | | | 2.9ppm | | | 4.6ppm | | | 6.2ppm | | | 10ppm | | | 6.2ppm | | | 18.3ppm | | |
| Human DRI Ratings* | 750m | 251m | 125m | 1.3km | 461m | 231m | 2.1km | 725m | 363m | 2.9km | 989m | 495m | 4.7km | 1.5km | 792m | 2.9km | 989m | 495m | 8.6km | 2.9km | 1.45km |
| Vehicle DRI Ratings* | 1.7km | 580m | 291m | 3.2km | 1.0km | 535m | 5km | 1.6km | 841m | 6.8km | 2.3km | 1.1km | 11km | 3.6km | 1.8km | 6.8km | 2.3km | 1.1km | 20.1km | 6.7km | 3.36km |
| Image Optimizations | DICE (Dynamic Image Contrast Enhancement), BPR, NUC, & AGC user configurable via SDK, GUI | | | | | | | | | | | | | | | AGC, EIS, Denoise | | | | | |
| Digital Zoom | 2X & 4X dynamic zoom/pan with range switching | | | | | | | | | | | | | | | 4X Digital Zoom | | | | | |
| Spectral Range | 7,000-14,000nm | | | | | | | | | | | | | | | 3,000-5,000nm | | | | | |
| Thermal Sensitivity | 50mK | | | | | | | | | | | | | | | 25mK | | | | | |
| Image Display Modes | White Hot, other color palettes available upon request | | | | | | | | | | | | | | | User Color Palettes / LUT | | | | | |

* **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.infiniti optics.com/dri

Additional System Specifications

Pan/Tilt Mechanical

| | |
|-----------------------|--|
| Pan Angle & Speed | Endless 360° Continuous Rotation, 0.4°/s to 60°/s (speeds may differ depending on configuration) |
| Tilt Angle & Speed | -90° to +90°, 0.4°/s to 40°/s (speeds may differ depending on configuration) |
| Proportional Pan/Tilt | Auto adjusts pan/tilt speed based on zoom level |

Physical

| | |
|--------------|-------------------------------------|
| Construction | High Strength Aluminum Alloy |
| Weight | 8-20kg (depending on configuration) |

Environmental

| | |
|-------------------------|--|
| Operational Temperature | -30°C to +60°C, <90% Relative Humidity |
| Environmental | IP66 Weatherproof Housing |

Electrical

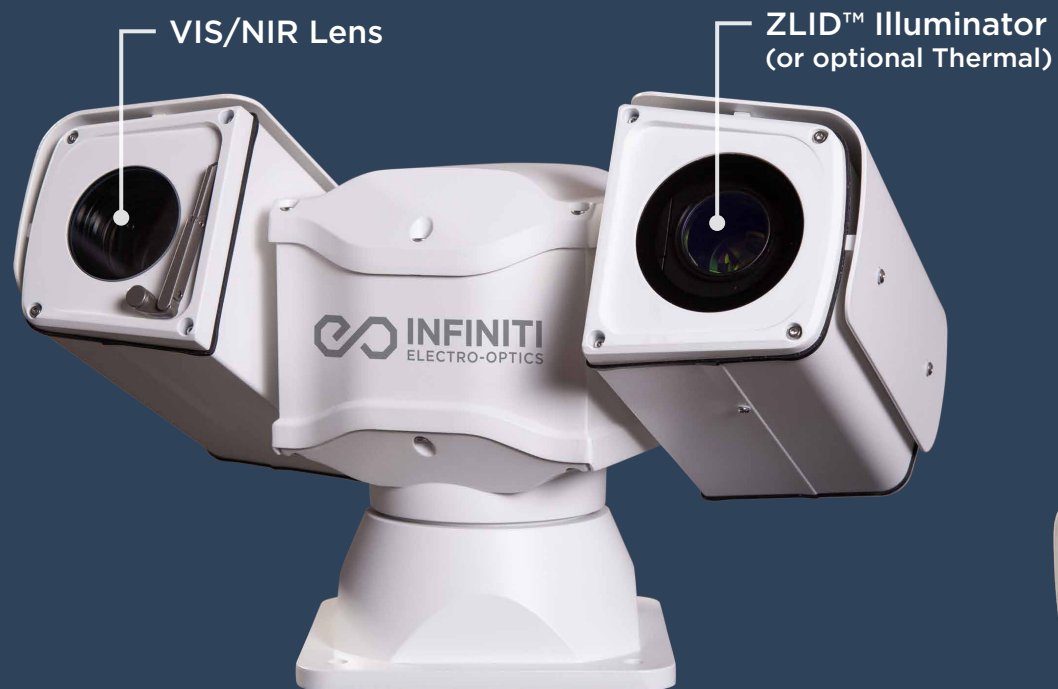
| | |
|-------------------|--------------------------------------|
| Input Voltage | 24VDC (12VDC Optional) |
| Power Consumption | 28-125W (depending on configuration) |

Optional Features: LRF (Laser Rangefinder), Wide-Angle 4K Spotter Camera, Reflective Paint or Customized Paint Finish, Joystick (Pelco-D or IP 3-axis joysticks), Solar Power, Wireless Analog or IP Radios P2P or mesh

Brochure specifications subject to change.

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Additional Images



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Additional Images

