



INFINITI
ELECTRO-OPTICS



Aegis AI

Advanced Perimeter Intrusion and Weapons Detection



SYSTEM Overview

Infiniti's **Aegis AI** is a state-of-the-art perimeter security solution that employs a highly trained artificial intelligence designed for comprehensive situational awareness and threat detection. **Aegis AI** contextualizes sensor data by pairing machine learning with Infiniti's industry-leading EO/IR PTZ cameras, which feature integrated visible, thermal, NIR, and ZLID™ illumination technologies.

Aegis AI provides fully automated proactive security solutions designed to detect and identify threats in real time. Optional active deterrents include LRADs, high powered spotlights, and laser dazzlers to deter intruders and ensure the safety and security of the premises. **Aegis AI** acts as a force multiplier for security personnel, providing an early warning detection system that alerts them to intrusions and threats in real-time, ensuring a swift response.

Infiniti's EO/IR PTZ systems boast the longest range EO/IR cameras on the market for both cooled and uncooled thermal cameras, as well as visible, NIR and SWIR cameras. This enables **Aegis AI** to continuously scan a perimeter based on user-defined zones, using long range thermal sensors to detect humans, vehicles, and other potential threats, day or night. When a threat is detected, the **WARDN (Wide Area Recognition and Defense Node)** scanning camera or a secondary EO/IR system with a high resolution long-range visible camera auto-tracks the subject using sub-pixel neural networks and automatically zooms in for more detail. At night, Infiniti's ZLID technology provides laser illumination at distances up to 6km, allowing for high definition night vision. Once the visible camera has zoomed in, **Aegis AI's GLASS (Gun Locator & Analysis Surveillance System)** weapons detection module's algorithms can determine whether a subject is armed, enabling an operator to identify security threats and deploy active countermeasures.



Key Features

Real-Time Monitoring

Infiniti's **Aegis AI** continuously scans the perimeter in real-time, providing instant alerts upon detection of humans, vehicles or other pre-defined objects within a specific region.

Auto-Tracking

After a detection is made, sub-pixel auto-tracking algorithms ensure that intruders are accurately followed and kept in the center of the frame.

Advanced Weapons Detection

Utilizing sophisticated AI algorithms, the system can accurately identify and classify various types of weapons, including firearms and other ballistic weapons even in challenging environments.

Continuously Improving AI

As video data is gathered over time, **Aegis AI's** detection and classification models can be trained to provide more accurate and robust performance in the field. With sufficient data, new object types can be added, including different types of weapons, vehicles, drones, etc.

High-Resolution Imaging

Infiniti EO/IR PTZ camera systems are equipped with high resolution cameras and sensors, allowing **Aegis AI** to capture clear and detailed images for precise analysis and identification of potential threats.

Long Distance Lenses

Infiniti's visible cameras provide up to 8 megapixel resolution on a 20-1225mm lens, which is equivalent to a 5700mm lens on a DSLR camera. Our 10 μ m 92-1200mm MWIR cooled HD thermal camera provides up to 50% longer detection ranges when compared to leading competitors in the market.

Edge Processing

Aegis AI is integrated into Infiniti's camera systems to run on the edge using NVIDIA Jetson Orin GPUs. This reduces latency and provides the best possible performance in mission critical applications.

Scalable and Flexible

Infiniti **Aegis AI** is designed to be scalable, making it suitable for a wide range of applications, from small facilities to large industrial complexes, borders, and military bases. Thermal scanning can be performed on a single system, or multiple systems can be used in conjunction to provide lower refresh rates in high-security applications.

User-Friendly Interface

The **Aegis AI** software interface provides security teams with easy access to live video feeds and detection alerts, to facilitate quick decision-making and responses.

Applications

- › Commercial and Industrial Facilities
- › Government and Military Installations
- › Critical Infrastructure Protection
- › Perimeter Security
- › Border Protection/Homeland Security
- › Ports and Harbours
- › Airports
- › Public Spaces and Events

Infiniti's **Aegis AI** represents the future of perimeter security and weapons detection. Its advanced features and performance make it an indispensable tool for any organization looking to enhance its security measures. Infiniti **Aegis AI** can be trusted to safeguard critical assets and ensure the safety of valued personnel.

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