

leagend Unveils TC810 Automotive Thermal Imaging Night Vision System to Driver Safety in Low-Visibility Conditions

Recognizing this growing demand, leagend introduces its latest innovation — leagend TC810 Automotive Thermal Imaging Night Vision System.

LOS ANGELES, CA, UNITED STATES, June 27, 2025 /EINPresswire.com/ -- As AI-driven vehicle safety technologies rapidly reshape the automotive industry, thermal imaging night vision systems are emerging as essential tools for safer driving in low-visibility conditions. Recognizing this growing demand, leagend introduces its latest innovation — leagend TC810 Automotive Thermal Imaging Night Vision System. Engineered with AI-powered object recognition, long-range thermal detection, and intelligent collision alerts, leagend TC810 enhances operational safety for both consumer and commercial vehicles, positioning itself at the forefront of next-generation driver-assistance technology.

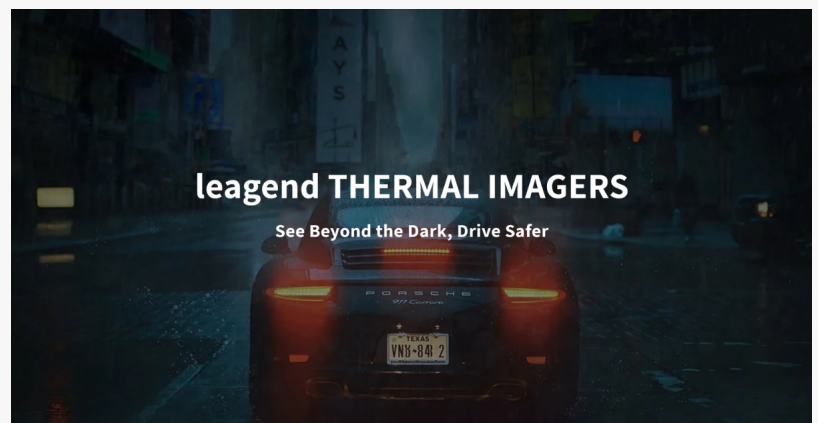
Designed for commercial fleets, passenger vehicles, and special-purpose vehicles operating in complex environments, leagend TC810 delivers reliable, real-time thermal imaging and proactive danger alerts, ensuring safer journeys in darkness, fog, rain, and other low-visibility conditions.

leagend®



TC810

leagend TC810



leagend Thermal Imagers

High-Resolution Thermal Imaging for Safer Navigation

At the heart of leagend TC810 system is a high-performance thermal imaging camera featuring a 256×192 resolution sensor and a wide 40°×30° field of view, delivering clear visuals in total darkness. Enhanced by AI super-resolution technology developed by Robofinity, the system provides an equivalent image resolution of 1024×768, allowing precise

identification of vehicles, pedestrians, and animals on the road ahead.

The thermal imaging module supports long-range detection, recognizing vehicles up to 200 meters (656 ft) and pedestrians up to 100 meters (328 ft), ensuring early warnings of potential hazards even before they become visible to the human eye.



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Arthur Kingsly

AI-Powered Real-Time Recognition and Collision Warnings
leagend TC810 is equipped with a powerful AI processor (2TOPS) that performs real-time analysis of detected objects. It automatically identifies vehicles, pedestrians, and animals, assessing their distance from the vehicle and issuing proactive danger alerts.

Vehicles and pedestrians at safe distances are displayed with green frames, while those within dangerous proximity are highlighted with red frames and accompanied by a

continuous warning symbol. The system’s default safety thresholds are 20 meters for vehicles and 15 meters for pedestrians, both of which can be customized via the companion InsightDrive AI mobile app.

When a collision risk is detected, the system immediately activates an audible “ding” sound alert and triggers ambient red warning lights on the 6.25-inch IPS touchscreen display — providing drivers with dual-sensory hazard notifications.

Independent Display and Dual Monitoring Options

Unlike integrated vehicle systems, leagend TC810 features a standalone 6.25-inch IPS touchscreen display (1560×720 resolution), mounted conveniently via a magnetic base for easy dashboard installation. The screen provides a real-time thermal image feed, danger distance indicators, and AI recognition frames without relying on the vehicle’s internal display infrastructure.

Additionally, users can connect their smartphones to the device via 2.4G WiFi to view live thermal video, access device settings, and adjust parameters such as detection distances, distance units,

or recording functions through the InsightDrive AI App.

Intelligent Features Designed for Real-World Safety

leagend TC810 is purpose-built for demanding environments with IP67 waterproof protection for the camera unit, operational temperatures ranging from -20°C to 70°C (-4°F to 158°F), and rugged impact-resistant construction. It records real-time thermal video onto a micro SD card (up to 128GB), automatically overwriting older footage when storage capacity is reached. The system also includes a Rainy Mode, which increases the frame refresh rate and shutter update frequency during rainy conditions to maintain optimal imaging clarity.

Quick, Secure Installation

Installation is fast and user-friendly:

- The thermal camera is mounted on the vehicle bonnet (exterior installation is essential due to the infrared waveband of 8~14µm, which cannot pass through glass).
- Cables are routed through the passenger-side A-pillar.
- The AI processing unit and display are connected via AHD signal and power cables.
- The display is powered through the car cigarette lighter socket (DC 12V).

A pre-installed 32GB memory card and T-shaped cable stabilizer are included to ensure reliable operation under all driving conditions.

Commitment to Safer Driving in All Conditions

“As vehicle safety technology advances, thermal imaging systems like [the leagend TC810](#) represent a new standard in proactive driver assistance — especially in situations where traditional headlights and cameras fall short,” said, Product Director at leagend. “This launch reflects our ongoing commitment to integrating AI and imaging technologies into intelligent vehicle safety ecosystems for global markets.”

leagend is a technology-driven and product-focused top manufacturer that has been at the forefront of the global market for over 20 years, backed by strong capabilities in innovation, research and development, and manufacturing since its founding in 2005.

leagend's OBD II diagnostic tools have earned an irreplaceable position in international markets, widely praised for their robust technology, reliable performance, and continuous product innovation, solidifying leagend's reputation as one of the industry's top manufacturers in this category.

In addition to its leadership in diagnostics, leagend is also highly respected for its precision-engineered battery testers, regarded as some of the most accurate in the industry, along with its ultra-low power consumption battery monitors, recognized in global markets for their efficiency and reliability. leagend's portfolio further includes intelligent 8-step battery chargers, delivering advanced charging technology trusted by automotive professionals and energy management sectors worldwide.

<https://leagend.com/>

Arthur Kingsly

SHENZHEN LEAGEND OPTOELECTRONICS CO., LTD.

+86 755 8282 1859

[email us here](#)

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