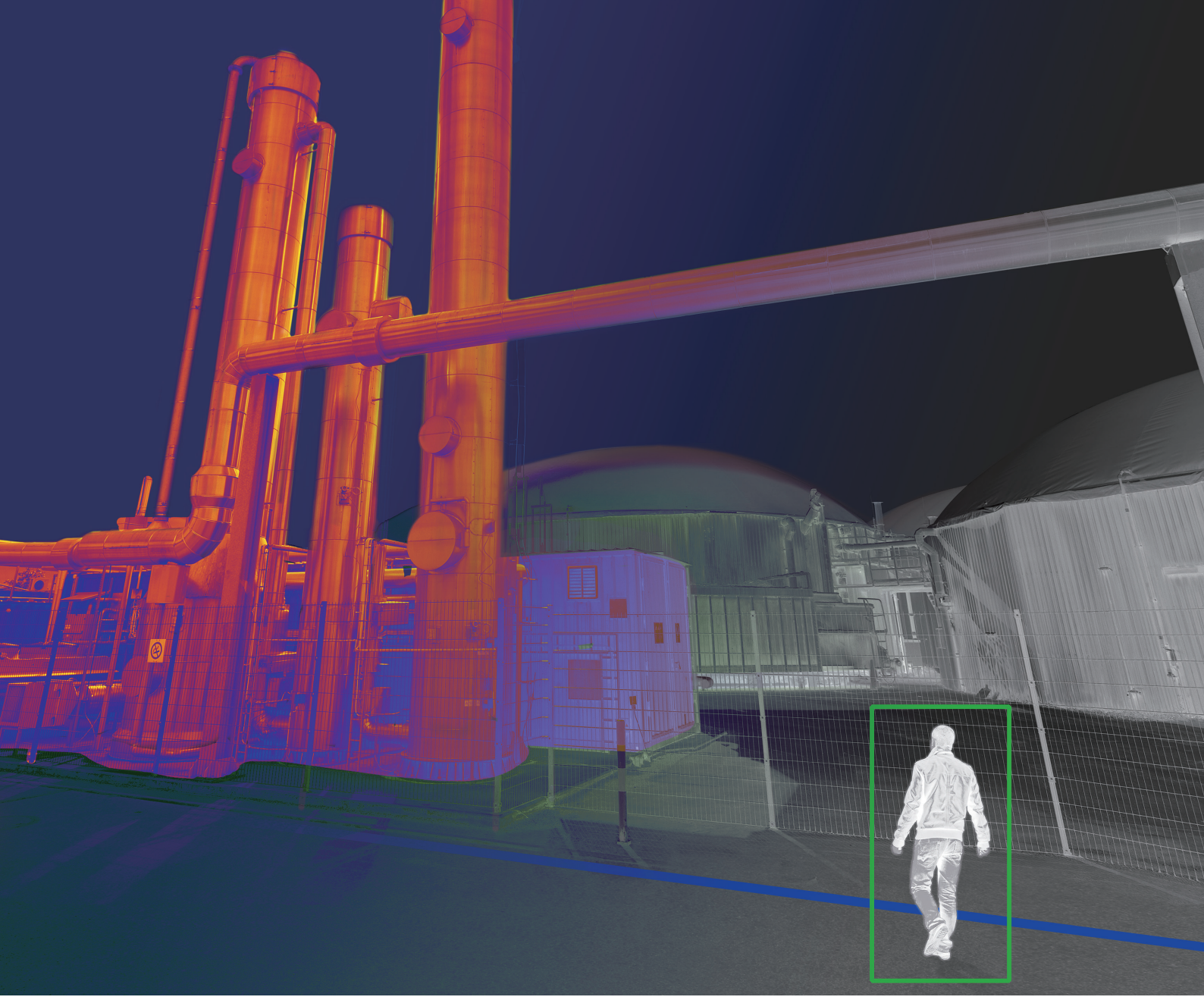
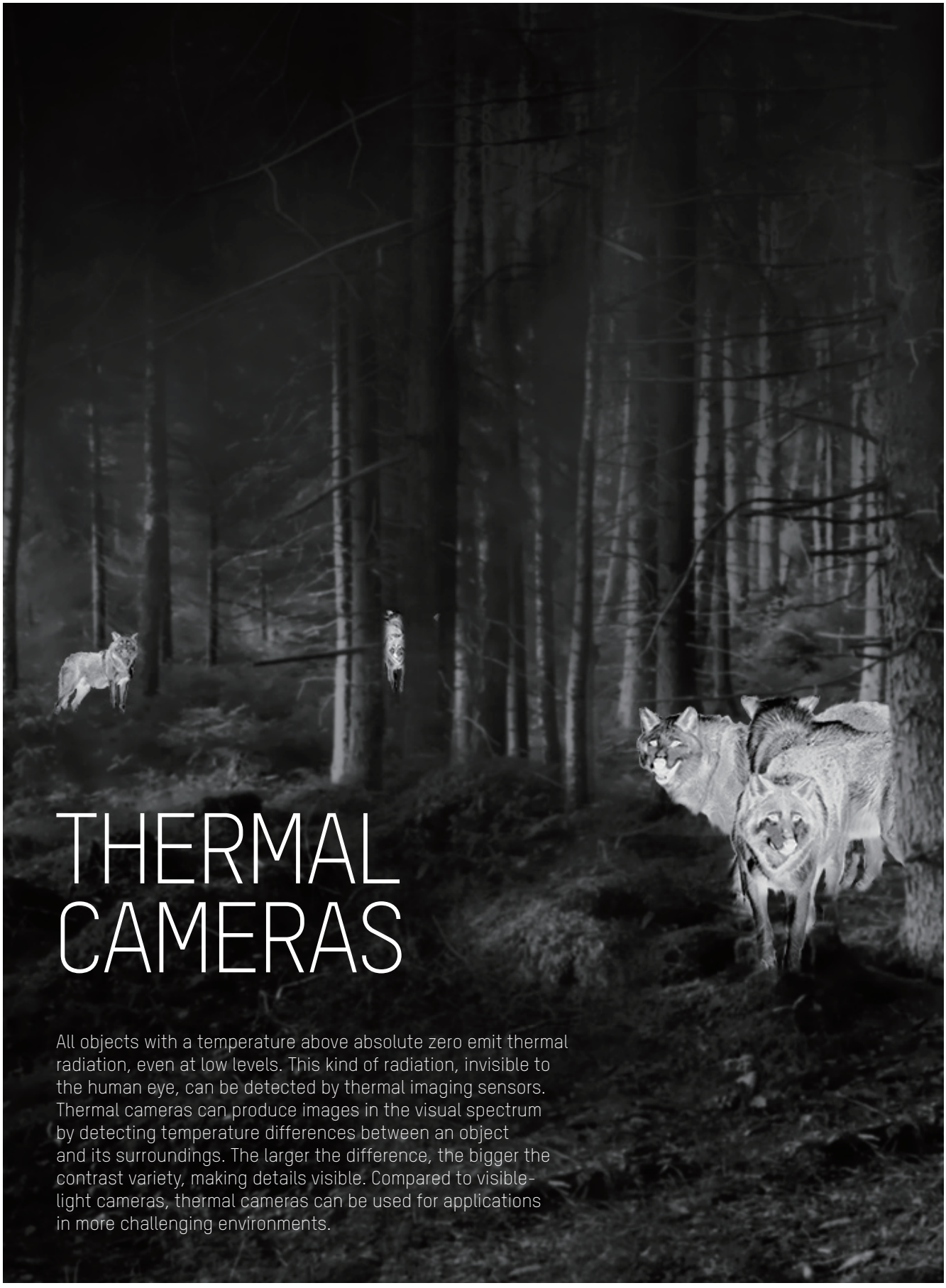


# HIKVISION THERMAL TECHNOLOGY IN BRIEF

HIKVISION®



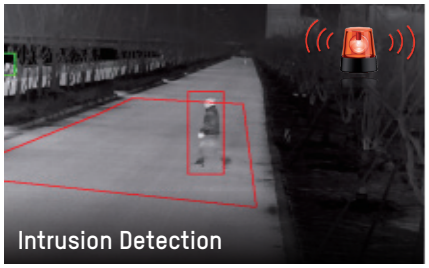
# THERMAL CAMERAS

All objects with a temperature above absolute zero emit thermal radiation, even at low levels. This kind of radiation, invisible to the human eye, can be detected by thermal imaging sensors. Thermal cameras can produce images in the visual spectrum by detecting temperature differences between an object and its surroundings. The larger the difference, the bigger the contrast variety, making details visible. Compared to visible-light cameras, thermal cameras can be used for applications in more challenging environments.

# ADVANCED DETECTION ABILITY

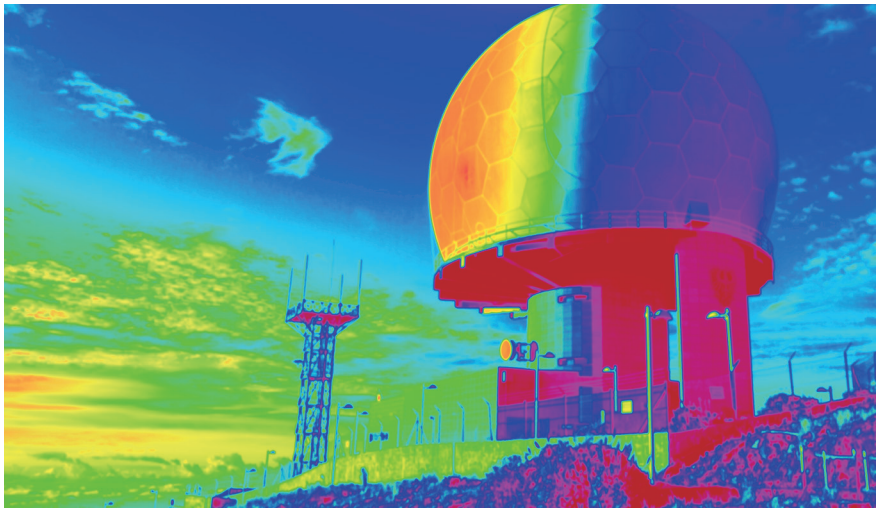
Using deep learning algorithms, thermal products deliver powerful and accurate video content analytics (VCA) such as line crossing, intrusion detection, and more. The intelligent human/vehicle detection VCA can help reduce false alarms caused by falling leaves, animals, or other irrelevant objects. When detecting a human or vehicle, cameras can automatically trigger an alert consisting of a strobe light and audio alarm (specific models only).





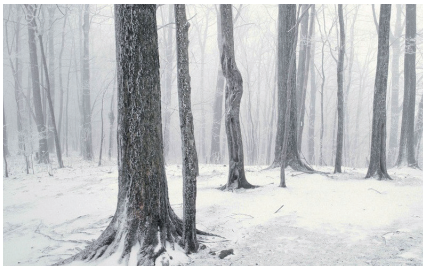

# TEMPERATURE MEASUREMENT

Thermal cameras can monitor temperatures of specified objects. If temperatures exceed or fall below a certain limit, an alarm is triggered. They can also track highlighted temperature-spans in an image through isothermal palettes. This enables security staff to more readily assess and respond to events. Thermal cameras can provide early warning of potential fires, of equipment over-heating or freezing, and many other hazards.



# EXCELLENT ENVIRONMENTAL ADAPTABILITY

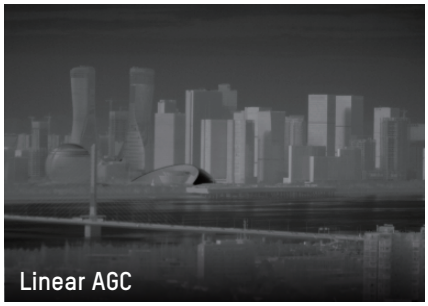
Thermal sensors are only minimally affected by changing light conditions, total darkness, or other challenging weather such as rain, fog or snow. This makes thermal cameras a perfect platform on which to build more efficient, 24/7 surveillance systems.

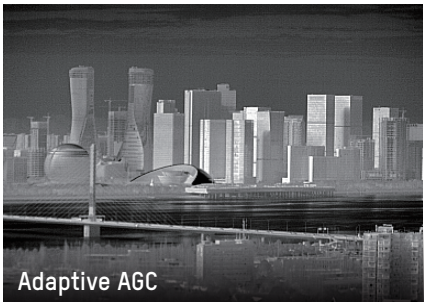


# HIKVISION'S THERMAL TECHNOLOGY ADVANTAGES

## AUTO GAIN CONTROL (AGC):

Adjusts the dynamic range of an image and retains permeability.
"Adaptive" AGC—a feature of Hikvision thermal cameras—is a more advanced algorithm than "linear" AGC, found in other manufacturers' cameras.




## DIGITAL DETAIL ENHANCEMENT (DDE):

Based on an enhanced algorithm for a region of interest, ensures images display more details.

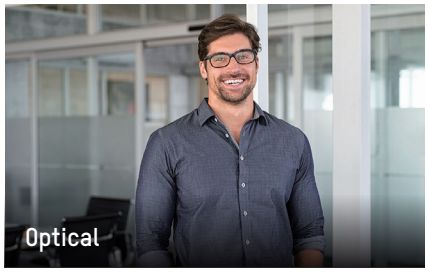


## 3D DIGITAL NOISE REDUCTION (DNR):

Through noise reduction processing of the original signal, hot pixels are minimized, rendering more refined images.


## BI-SPECTRUM IMAGE FUSION:

Bi-spectrum image fusion combine features from both thermal and optical images, and creates a unique hybrid that provides extra details for more precise detection and decision-making.






# A COMPLETE RANGE OF THERMAL PRODUCTS

Combining Hikvision's proprietary thermal imaging technology with our extensive experience in the video surveillance field, we can provide a full range of thermal products to meet our customers' various requirements.

The single-lens bullet cameras provide an economical total cost of ownership, and the dual-lens products—bullet cameras, speed domes, and positioning systems—offer pan and tilt flexibility and simultaneous video streams that include both visible light and thermal imaging. Complex functions can be achieved. For example, bi-spectrum linkage can trigger automatic optical tracking if thermal units detect a target, and the fire detection function can locate fires and automatically zoom in with a traditional camera for visual confirmation.

To meet accurate temperature-measuring requirements, we created thermal bullet and PTZ cameras, which support point, line, and frame temperature measurement types. Users can set upper and lower temperature limits. When the temperature exceeds set limits, an alarm will be triggered. We have also introduced handheld thermal devices for industrial testing or outdoor activities. It's easy to carry and records precise measurement.


Hikvision USA Inc.
18639 Railroad Street
City of Industry, CA 91748
Email: sales.usa@hikvision.com

Hikvision Canada Inc.
4848 Levy Street
Saint-Laurent, QC H4R 2P1
Email: sales.canada@hikvision.com

Contact Information
Toll-Free: +1 866-200-6690 (U.S. and Canada)Phone: +1 909-895-0400
**www.hikvision.com**

Connect with us:



110220HK