

Social Screening & Health Analytics



GANZ
Security Solutions
by 

Next generation temperature screening system

With the current ongoing Coronavirus pandemic, thermal screening and social health analytics play a critical role in protecting the public and limiting the spread of the Coronavirus. Today, GANZ thermal cameras and VAIDIO social health analytics are helping companies all over the world to move to a new normal and safely re-open their businesses. GANZ and VAIDIO social screening and health analytics include contact tracing detection, distancing detection, facemask detection, occupancy detection and high body temperature detection.

Strategic alliance partners

CBC America, a leading manufacturer of intelligent security systems and the GANZ brand's parent company, has entered into a strategic alliance with IronYun and its subsidiary Aicuda Technology. The partners are introducing a temperature screening system for businesses re-opening during the current COVID-19 pandemic. CBC customizes the GANZ thermal camera and pairs it with the VAIDIO Video Intelligence Platform for social health screening. The enterprise solution will provide rapid temperature screening and advanced social health analytics.

Ideal for

- Airports
- Concert halls
- Elderly homes
- Entertainment parks
- Factories
- Government institutes
- Hospitals
- Hotels
- Mosques
- Railway stations
- Schools
- Sport stadiums
- Supermarkets
- Theatres



📍 Contact tracing in a workspace

- Employee or visitor notifies the employer that he or she has tested positive with COVID-19.
- Employer uploads an image of the infected person into VAIDIO intelligent search engine.
- Search engine conducts a search across the available footage to identify the infected person.
- Appearance attributes can be utilized in the identification process.
- Operator reviews video that matches with the face and appearance of the infected person.
- Operator identifies the affected employees and visitors.
- Employer notifies the people with whom the infected person has interacted and recommends these people to go in self-isolation.
- Employer can keep the identity of the infected person anonymous.

Contact tracing detection

Contact tracing is an important instrument to reduce the infection rates. Contact tracing enables operators to identify individuals that have had contact with a COVID-19 infected person and recommend those individuals to go in self-quarantine for 14 days. VAIDIO Face Recognition, Intelligent Video Search and Appearance Search are useful tools for contact tracing.



Distancing detection

Public health agencies encourage social distancing as best way to curb the spread of COVID-19. VAIDIO Distancing Detection provides real-time, relevant situational awareness and can trigger alerts when people are too close to one another in a pre-defined field of view. This enables operators to rapidly assess and respond to developing situations like group gatherings or foot traffic bottlenecks.



Social distancing

Facemask detection

Creating a safe workspace is one of the top priorities now when businesses start reopening. VAIDIO Facemask Detection provides the ability to detect and alert on face mask violations in real-time. Operators can search for people with or without a face mask and create alerts for proactive response to noncompliance with onsite safety regulations. Insights in adoption and violation rates can be used to optimize decision making to ensure that businesses comply with health and safety audits.



High body temperature detection

Companies are looking for innovative solutions to enhance their health screening processes to protect their employees and visitors. VAIDIO body temperature detection integrates with GANZ customized thermal cameras to receive thermographic images of individuals within a distance from the camera. VAIDIO analytics simultaneously detect people, faces and temperature and alert operators for people with elevated temperature. The analytics can actually enhance the accuracy of the GANZ thermal camera without using a blackbody system.



Occupancy detection

To ensure compliance with social distancing directives, companies can continually monitor their occupancy statistics and protect employees and visitors. VAIDIO Occupancy Detection enables operators to set rules to count people as they enter and exit a premise across multiple cameras, entrances and exit points. The intelligent software can trigger alerts when user-defined thresholds are exceeded.





Crowd Occupancy Alert system

Governments around the world are putting restrictions and limits on the number of people that can gather in one place. It is important for businesses to have a live occupancy monitoring system that accurately counts the incoming and outgoing people traffic and promotes social distancing. VAIDIO Crowd Occupancy Alert system works seamlessly with the intelligent People Counting module. It enables operators to set occupancy limits and monitor an unlimited amount of entrances. It automatically sums up the combined IN and OUT people traffic from all entrances and calculates the occupancy number in real-time.

Thermal cameras

An important indicator for a virus infection is an increased body temperature. Infrared thermography can help to detect increased body temperatures. It quickly identifies people with a high body temperature and isolate them for confirmation, testing and further observation. Thermal solutions are an important tool to limit the spread of viral diseases or bacterial infections. Thermal imaging cameras do not actually capture temperature. Instead they capture the infrared (IR) energy transfer from an object to its environment and provide a real-time image in a color palette where warmer objects appear brighter and colder objects appear darker. Computer algorithms are used to generate the color palette.



Image IP Camera



Image Thermal Camera

Environmental and personal conditions can influence the temperature screening process. Examples of environmental conditions are the airflow, humidity and ambient temperature on screening locations. Personal conditions are related to the person’s activities just before screening occurs. For example, did the person just run before screening or is the person coming from a warmer or cooler environment?



GANZ thermal imaging camera

The customized high-performance GANZ Thermal Imaging Camera ZNT1-HET14G20A captures high-quality video in all lighting conditions. This cost-effective thermal solution outperforms conventional surveillance technologies and has been paired with GANZ's PixelPro 1080p bullet camera to provide rapid and accurate dual imaging. GXi Technology maximizes the camera's surveillance capabilities by bringing an added feature set of GXi Imbedded intelligence for video analysis.

Features ZNT1-HET14G20A

- GXi Technology
- Thermal imaging powered by DRS Technologies
- Image Contrast Enhancement (ICE™) features
- Resolution 320x240
- 30 fps for global commercial applications
- Sensor Pixel Size 17 μm
- Sensitivity (NETD) < 50 mK at f/1.0
- Lens (FOV) 42° (7.5mm)
- IP and Analog connectivity
- e-Pan & e-Tilt
- 24/7 operation in all weather & lighting conditions
- Indoor/outdoor (IP66)
- Embedded storage and edge recording
- ONVIF Profile S and G conformant



Screening process



People approach a thermal screening checkpoint at the entrance of a hospital, hotel, restaurant, supermarket, school etc.



Individuals are remotely screened as they look into the thermal camera. The screening process takes less than a second.



The camera operator views a color monitor and receives an alarm when a person shows a temperature above the norm.



People with elevated body temperature will be isolated from the others and referred to medical staff for further examination.



VAIDIO and GANZ Social Health Solutions Bundle

Ganz Thermal Camera	Ganz fixed thermal camera, model: ZNT1-HET14G20A, 17um, 50 NETD, 320 x 240 pixels x 2, 30fps, 42 deg HFOV, 7.5MM.
AIVA VSA-110 Appliance	Mini PC, Intel Core i5 CPU, 8GB RAM, System SSD 128GB, GPU NVIDIA GTX series, 1TB internal 3.5" SATA HDD, Dual Gb Ethernet.

VAIDIO Social Health Analytics

AIVA Video Search	VAIDIO core platform software including object detection and video search. Max 13 channel licenses per VSA-110 appliance.
Temperature Detection	VAIDIO temperature screening with GANZ thermal camera SDK. Max 1 channel license per VSA-110 appliance.
AI Face Recognition	VAIDIO intelligent face search and face recognition. Max 4 channel licenses per VSA-110 appliance.
Occupancy Detection	VAIDIO people counting including VAIDIO crowd occupancy alert system. Max 2 channel licenses per VSA-110 appliance.
Facemask Detection	VAIDIO facemask detection and no-mask alerting. Max 4 channel licenses per VSA-110 appliance.
Distancing Detection	VAIDIO social distancing detection and alerting. Max 8 channel licenses per VSA-110 appliance.
Maintenance Fees	Software maintenance fees. First year is included at no charges. Second year and further: optional.

Case study manufacturing plant

The VAIDIO-GANZ temperature screening system has recently been successfully piloted at a leading automobile manufacturing plant in the U.S. Southwest. The plant has over 2,000 employees that need temperature screening before they can start their workday. Initially, two medical staff members manually measured each employee before entry to the plant floor, which took about an hour to clear the long entry lines. The plant has deployed two VAIDIO-GANZ screening systems at two entry doors. The VAIDIO-GANZ system can accurately scan and identify high temperatures for their employees as they enter the plant, in real-time, at their normal walking pace, completely eliminating the temperature screening bottleneck. The company estimates that the system achieved full ROI payback within two days.

