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Thales Cogent High Temperature Detection (HTD)

The most accurate and easy remote temperature measurement

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Identity & Biometric Solutions

I. Overview

Thales Cogent High Temperature Detection (HTD) is a specifically designed system for high-precision human elevated body temperature (EBT) detection, used at physical access control points of critical importance such as borders, airports, ports, ships, power-stations and others.

Based on state of the art proprietary facial feature detection and body temperature measurement algorithms, HTD quickly and easily captures and processes live visible and thermal images of individuals and groups of simultaneous users at a distance of up to 3 meters, displaying detected temperature on a user-friendly interface designed for a multitude of use cases, including monitoring by security officers.

Real-time alarms are triggered when detected temperature of an individual is above a configurable threshold, allowing for appropriate decisions to be made as to how the person might be handled or screened. The system also generates optional alarms when individuals are not wearing a health mask.

The HTD system offers a fully contactless and safe experience for customers/passengers and security officers, by allowing temperature detection at a distance and on the move, with images captured by a camera and displayed on an easy-to-use interface.

Key benefits
- **Does not require a costly and hard to maintain blackbody device** for calibration, thus allowing for easy installation
- **Provides superior measurement accuracy of +/- 0.1 C.** This translates into less false positives, less time to screen high volume of persons, and drastically reducing the need for secondary screening. It also means screening personnel are at less risk as they are exposed to less people

Fast, compact and convenient
- Less than 1 second to detect a person or group of people on the move, determine face skin temperature and raise an alarm if above a threshold, even if mask is worn
- Contact-free operation
- Available as an add-on for a tablet, or a standalone unit that plugs to a PC or server
- Very compact form factor: with a size of 126 x 93 x 137 mm it is one of the most compact temperature detection camera units on the market
- No need for a blackbody device for calibration
- Easy to connect to a PC, only requiring an Ethernet and two USB 3.0 ports
- Standalone unit can be mounted on a standard ¼ inch tripod or pole mount. Tablet add-on version fits in with existing mounting options (VESA)
- Designed for in-door operation

Intuitive user interface and privacy
- Real-time visual, thermal or fusion display for security officer showing detected face, temperature, mask wearing and alarms history
- No biometric data is permanently stored by default
- Anonymous reports can be generated for storing traffic data into an access control system
- An independent .Net API is also available for integration into customer application
- **HTD is an accurate temperature measurement device and not a COVID detection device**
- **The solution has been successfully tested in a hospital environment**

II. Technical Specs

a. HTD Standalone Camera Unit

Size (in mm)	126 width x 93 height x 137 depth
Cameras	RGB camera, Thermal camera
Sensor	Thermal - Microbolometer / Visible - Bayer Filtered CMOS
Frame rate	30 Hz
Resolution	Thermal 640 x 480 or 320 x 240 / Visible 1920 x 1080
Interface	2x USB 3.0, 1x Ethernet port
Measured Temperature range	30 °C to 45 °C (86 °F to 113 °F)
Measurement accuracy	± 0.1 °C
Measuring distance	1m to 3m
Mounting	1/4 inch standard tripod
Power supply	12V, 3A DC Power Supply
API	.NET Framework

b. HTD Tablet add-on

Cameras	Thermal camera (system uses tablet RGB frontal camera)
Sensor	Thermal - Microbolometer / Visible - Bayer Filtered CMOS
Frame rate	30 Hz
Resolution	Thermal 640 x 480 or 320 x 240 / Visible 1920 x 1080
Interface	1x USB 3.0, 1x Ethernet port
Measured Temperature range	30 °C to 45 °C (86 °F to 113 °F)
Measurement accuracy	± 0.1 °C
Measuring distance	1m to 3m
Power supply	12V, 3A DC Power Supply
Mounting	VESA 40x40 and 100x100
API	.NET Framework

c. HTD Windows Application

OS	Windows 7 / 10 64 bits
PC requirements	Intel i5 CPU 5th generation, 8 GB RAM, Min 700 MB free disk space, 2x USB 3.0 free ports, 1x free Ethernet port. Alternatively, an homologated USB to ethernet device can be used, allowing for longer distance connection to the camera device using two ethernet cables.
Language	English

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