

Smart Thermal Imaging Solution

DFI's iMage Smart Thermal Imaging System provides automatic fever detection, recording and sending alarm as well as reducing queue-up and staff allocated for entrance control.

ST102-CS

Thermal Imaging System

Alarm Functions

VMS Embedded

- Quick Search
- Heterogeneous Integration

iMage-EV



ST102-CS pairs with Thermal Camera

- 1.Up to 3 detection areas (any over-heat objects can be detected)
- 2. Detection distance:
 - 1.5 to 2m
- 3.Object temperature range -20°C ~150°C

iMage-M



ST102-CS pairs with Thermal Camera

- 1.Up to 20 detection areas (any over-heat objects can be detected)
- 2. Detection distance:
 - 2.5 to 5m
- 3. Extended Applications: fire detection, electrical fence, etc.

iMage-F



ST102-CS pairs with Thermal Camera

- 1.Especially detect human face
- 2.Up to 30 people at once
- 3. Detection distance:
 - 2.5 to 5m









DFI's Smart Thermal Imaging System iMage-EV is an entry-level package for single-person fever detection, featuring DFI's ST102-CS high performance embedded computer and a thermal camera that simultaneously detects up to 3 areas within 1.5 to 2 meters.

Single-Person Fever Detection

Image Streaming Format | MJPEG / H.264 / H.265

Image Modes | Thermal, Visual

Thermal Sensitivity/NETD | <40mK

Accuracy | Max. ±2%

Object temperature range | -20°C to 150°C

Encapsulation | IP67

Resolution | RGB: 1600 x 1200; IR:160 x 120 pixels

Temperature Measurement | Set up Detection Zones / points (up to 3 zones / 3 points)

Once temperature abnormality is detected, the iMage-EV issues real-time alarms — CCTV video pop-up, warning sound, email notification, and etc. The iMage-EV, with a friendly UI, provides open APIs to integrate 3rd party systems, and help query information of certain events along with images.

ST102-CS Box PC

CPU | 8th Gen Intel® Core™ i3-8100T Processor

Memory | DDR4 SODIMM 4GB

Storage | 1 x 2.5" SATA 3.0 Drive bay

I/O | 2 GbE, 6 USB, 2 x DP++, 1 x HDMI,

1 x optional slim ODD bay

Power | 12V DC power input

Operating Temperature | -5~55° C

Operating System | Windows 10 IoT Enterprise

Warranty | Long Life Cycle Support, 2 years warranty



DFI's Smart Thermal Imaging System iMage-M is an advanced package for multi-person fever detection. Pairing DFI's ST102-CS industrial computer with a dual-lens thermal camera makes it possible to detect 20 areas within 2.5 to 5 meters. It is also future ready for extended security surveillance.

Once temperature abnormality is detected, the iMage-M issues real-time alarms — CCTV video pop-up, warning sound, email notification, and etc. The iMage-M with a friendly UI, provides open APIs to integrate 3rd party systems, and help query information of certain events along with images.

Multi-Person Fever Detection

Imaging Elements RGB: 1/1.8" 6M CMOS / line-by-line scan
Thermal: uncooled microbolometer

(Infrared Range: 7.5 to 13.5μ m)

Resolution | RGB: 6 million (3072x2048) Thermal: 336 x 252 pixels

Image Streaming Format | MxPEG / MJPEG / H.264

Min. Illusion | RGB: 0.1 lux, 1/60 second

Thermal Image | Temperature scale or black/white

NETD | Standard: 50mK, <79mK (50mK means that temperature change is 0.05°C)

Accuracy $\mid \pm 0.5^{\circ}C(2.5 \sim 5m)$

Object temperature range | High sensitivity: -40 to 160°C Low sensitivity: -40 to 550°C

Low sensitivity. 40 to 550

Detection Area | Up to 20 boxes

Encapsulation | Body: IP66 / IK06 Lens: IP66 / IK04 (B016 equal to IK06)



ST102-CS Box PC

CPU | 8th Gen Intel® Core™ i3-8100T Processor

Memory | DDR4 SODIMM 4GB

Storage | 1 x 2.5" SATA 3.0 Drive bay

/O | 2 GbE, 6 USB, 2 x DP++, 1 x HDMI,

1 x optional slim ODD bay

Power | 12V DC power input

Operating Temperature | -5~55° C

Operating System | Windows 10 IoT Enterprise

Warranty | Long Life Cycle Support, 2 years warranty



DFI's Smart Thermal Imaging System iMage-F is an advanced package for multi-face fever detection (face detection only). iMage-F pairs DFI's ST102-CS industrial computer powered with a thermal camera, detecting up to 30 people at once.

Multi-Face Fever Detection

Resolution | RGB: 2688 x 1520; IR: 384 x 288 pixels

Image Streaming Format | H.264 / H.265 / MJPEG

Encapsulation | IP66

Thermal Sensitivity/NETD | <40mK

Accuracy $\mid \pm 0.5^{\circ}C (2.5 \text{ to 5m})$

Object temperature range | 30°C to 45°C

Detect object | Human face temperature, up to 30 persons

Image Modes | Thermal, Visual,

MSX (IR-image with enhanced detail presentation)

ST102-CS Box PC

CPU | 8th Gen Intel® Core™ i3-8100T Processor

Memory | DDR4 SODIMM 4GB

Storage | 1 x 2.5" SATA 3.0 Drive bay

1/0 | 2 GbE, 6 USB, 2 x DP++, 1 x HDMI,

1 x optional slim ODD bay

Power | 12V DC power input

Operating Temperature | -5 ~ 55° C

Operating System | Windows 10 IoT Enterprise

Warranty | Long Life Cycle Support, 2 years warranty



Once temperature abnormality is detected,

the iMage-F issues real-time alarms — CCTV

video pop-up, warning sound, email notifi-

cation, and etc. The iMage-F with a friendly

party systems, and help query information

UI, provides open APIs to integrate 3rd

of certain events along with images.