## PPEUSION

TOMORROWS TECHNOLOGY TODAY

Elevated Body
Temperature
Solution "REBT"



3 year warranty



Utilising proven thermal technology, EBT (Elevated Body Temperature) Solutions from Rfusion deliver high speed, highly accurate temperature readings to allow reassurance and access control connectivity.

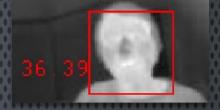


Fig.1 Temperature Detection In action





By utilising radiometric technology from World leading thermal suppliers, the solution benefits from:-

- Small Form Factor
- Aesthetic discretion
- Continuous Ambient Calibration
- Fast Read Time
- Open Integration (SDK & ONVIF)
- Standalone or Multi use

Fig.2 Form factor of camera unit & thermal core

Programmable Detection Zone

Detection of Highest temperature within Zone

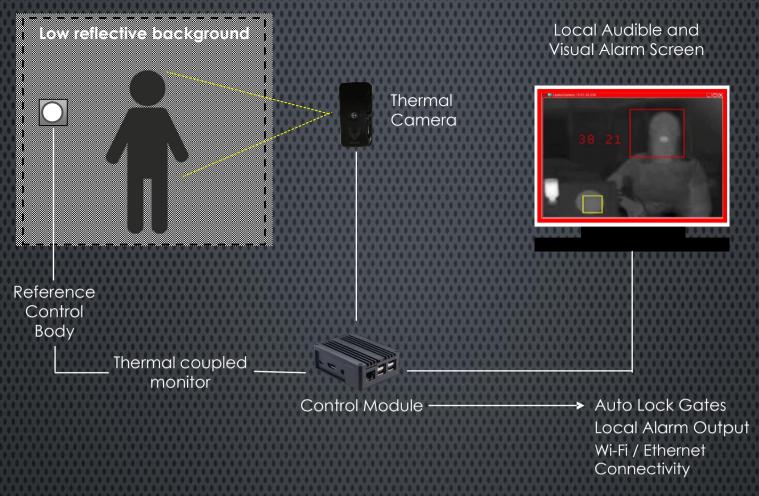
Using Pixel Cluster Detection, the system can be defined with a fixed detection zone

A mandatory Reference Control Body (Black Body) is linked to the camera controlled unit for constant ambient temperature calibration – ensuring fluctuations in ambient temperature are attenuated to the thermal camera output

Fig.3 Highest temperature pixel cluster detection





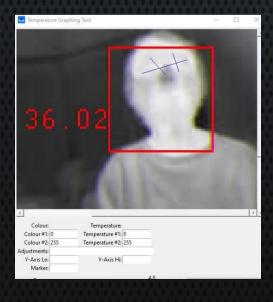


The system concentrates the temperature reading to the canthi area of the human eye – recognised as the area where the blood vessels are closest to the surface of the body

The control module continuously monitors the ambient air temperature to ensure a consistent and calibrated temperature reading from the subject

When a subject displays an elevated temperature reading (associated with health, infection or anxiety) that exceeds the programmed threshold, the system offers:-

- Access control link Software and Hardware I/O control
- Visual Alert options include visible and audible outputs
- Visual output stream (with thermal date) via ONVIF/RTSP





## System Specifications



Weight 95.3a (with screen) Dimensions 20 x 12 x 5cm Screen Size 7 inches

Without Screen Dimensions 6.8 x 9.2 x 3.3cm Sandblasted Anodised Aluminium Body

- Unique design allows for fan-less cooling
- Full access to all external connections
- Broadcom 64-bit, Quad core SoC @ 1.4Ghz
- 1GB LPDDR2 SDRAM
- 2.4GHz/5GHz IEEE 802.11 b/g/n/ac Wireless LAN (WLAN)
- Bluetooth Low Energy v4.2 (BLE)
- Gigabit Ethernet over USB 2.0 (maximum throughput 300Mbps)
- 4 x USB 2.0 Ports
- Extended 40-pin GPIO Header
- Full Size HDMI, MIPI DSI display port, MIPI CSI camera port
- 4-pole stereo audio/composite video output port
- MicroSD card slot for operating system and data storage
- Power over Ethernet (PoE) enabled (requires separate PoE HAT)
- Power supply requirements 5V/2.5A DC via micro USB or GPIO



Weight 31.8g Dimensions 8 x 3.7 x 2cm Wireless 802.1a

Sensor

Spectral Range

**Array Format** 

Pixel Size

Effective Frame Rate

Thermal Sensitivity

FoV Horizontal

FoV Diagonal

Output format

Lens Type

Temperature Compensation

Radiometric Accuracy Scene Dynamic Range Uncooled Vox microbolometer Longwave Infrared, 8µm to 14 µm

160 x 120 Progressive Scan

(19200px)

12µm

8.7Hz

<50mK (0.050° C)

Automatic Output image

independent of camera

temperature

High Gain Mode: +/- 0.3°

-10° to +140° C (High Gain)

57° 71°

f/1.1

User selectable 14bit, 8bit (AGC Applied) or 24bit RGB (AGC and

colourisation applied)



Blackbody reference unit Power 6v DC Size 12 x 12 x 7.5 cm Weight 525g

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