

FIXED MODUM KIT

HIGH ACCURACY STANDOFF BODY TEMPERATURE DETECTION



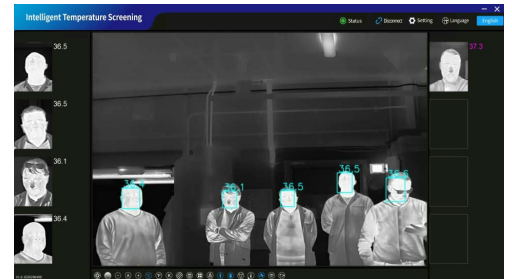
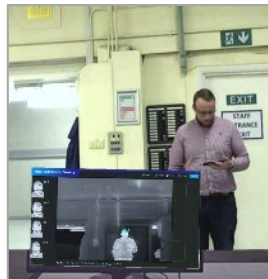
The Fixed Modum is a highly accurate temperature detection and profiling system. When deployed with the supplied Blackbody the Fixed Modum is accurate to within 0.3 degrees making it perfect for standoff elevated body temperature detection requirements.

The Fixed Modum Kit is designed to be deployed as a standalone system (or as part of a networked system). This allows for a portable and rapid deployment as a standalone system.

The Fixed Modum twins a highly accurate thermal camera with a HD daylight camera allowing for the quick identification and recording of the user. This makes it perfect to integrate alongside a Facial Recognition capability.

KEY FEATURES

- High accuracy (0.3 Degrees)
- High 640x512 and low 384x288 resolution options
- Heat measurement up to 5m away
- Secondary HD visible camera
- Paired blackbody for temperature reference
- SDK support
- Complete Kit (with tripods or trolleys) for rapid deployment



TYPICAL MODUM KIT DEPLOYMENT

Modum Camera (mounts not shown)

Thermal Blackbody (mounts not shown)

Laptop



Power

Ethernet Cable

Power

Power

FIXED MODUM KIT

HIGH ACCURACY STANDOFF BODY TEMPERATURE DETECTION



GENERAL

Part	FD384H	FD640H
Lens	7.8mm	15mm
Field of View	47.0°(H) x 35.6°(V)	33.3° (H) x 27.0° (V)
Detector	VOx uncooled thermal FPA	
Resolution	384x288	640x512
Pixel Size	17µm	14µm
Spectral Band	8 to 14µm (LWIR)	
Sensitivity	<40mK @ 25°C, F1.0	
Frequency	50Hz	
Measurement Range	1-5m	

THERMAL IMAGE

Image Adjustments	Brightness, Contrast, Manual/Auto
Polarity	Hot / Cold (colour related to the chosen palette)
Palette	16 Colour Palettes
Focus	Electronic Autofocus, Manual Focus
Image Process	NUC / DDE / Digital Filtering Noise Reduction
ROI	Yes

TEMPERATURE MEASUREMENT

Measurement Range	0°C to 60°C
Measurement Accuracy	±0.5°C at 33°C to 42°C of target temperature (±0.3°C with blackbody)
Working Temperature	16 to 32°C (with 0.3°C accuracy with blackbody)
Measurement Tools	Heat Measurement Box (drawn on screen)
Time to Stabilise	< 10 Minutes (from power up)
Measurement Stable Time	≤10s (fastest)
Temperature Correction	Manual / Auto Correction

VISIBLE CAMERA

Focal Length	8mm Fixed lens
Image Sensor	1/2.8" CMOS (2.13MP)
Resolution	1920 x 1080 (Full HD)
Horizontal FOV	39°
Focus	Fixed
Minimum Sensitivity	0.1 lux

IMAGE PRESENTATION

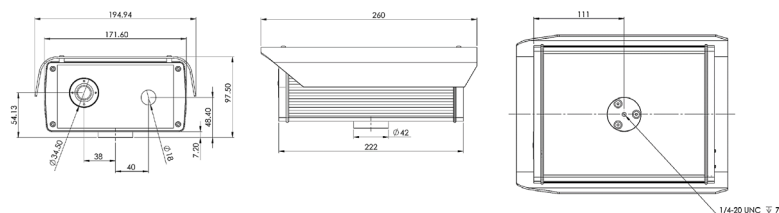
Video Output	IP RTSP / SDK Integration
Video over IP	ONVIF streams - Thermal only, Visible Only, Thermal with Visible Picture in Picture (PIP)

TELEMETRY

Protocols	SDK/Custom IP Alerts* and ONVIF Motion Start Alert for Temperature Alarm**
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*To allow integrated custom IP protocols **Delivery by SSL ONVIF bridge software

MECHANICAL DRAWINGS



PHYSICAL CHARACTERISTICS

Part Number	RCF
Input Voltage	Nominal 24VDC
Power Consumption	Typical: 53W, Peak:100W
Housing Material	Iridited aluminium, powder marine grade paint finish
Camera Weight	5kg / 12.2lb
Camera Size (mm)	H98 x W195 x D260
Colour	Black

INTERFACES

Ethernet	Command and control of all functions including streaming of H.264 Video
Connectors	Stand Unit (1x RJ45, 1x 2.5mm DC Jack)

ENVIRONMENTAL

IP Rating	IP55
Temperature Range	-30°C [-22°F] up to 65°C [149°F] (-40°C with optional heater)

BLACKBODY

Voltage Input	110-240VAC
Power	260W Peak
Working Temperature	5-100°C
Time to Stabilise	<5 Minutes
Blackbody Weight	1.5kg / 3.3lb
Black Body Size (mm)	H110 x W150 x D195
IP Rating	IP42
Colour	White

MINIMUM PC/LAPTOP HARDWARE SPECIFICATION

CPU	I5 (or equivalent)*
RAM	8GB
Operating System	Windows 10
Monitor Resolution	HD
Hard Drive	Minimum 256GB

* The CPU processor should have a score greater than 7500 from the following Website: www.cpubenchmark.net

KIT ACCESSORIES (INCLUDED)

Part	RCF-KIT-FD384H or RCF-KIT-FD640H	RCF-KIT-FD384H-T or RCF-KIT-FD640H-T
Laptop*	Modum Laptop (pre-configured)	Modum Laptop (pre-configured)
Mounts	Modum Camera Wall Mount	Modum Camera Wall Mount
	Modum Camera Tripod	Modum Camera Trolley
	Blackbody Wall Mount	Blackbody Wall Mount
	Blackbody Tripod	Blackbody Tripod
Case	Modum Carry Case	Modum Carry Case

* Kits are available without the laptop (software is supplied on a USB flash drive)

MODUM KIT PART NUMBERS

RCF-KIT-FD384H	COMPLETE KIT Including - Modum elevated body temperature detection camera (384x288, 7.8mm lens), blackbody, Modum camera tripod, Modum camera wall mount, Blackbody wall mount, Blackbody tripod, laptop (pre-configured), Modum PSU, 5m cable assembly & carry case
RCF-KIT-FD640H	COMPLETE KIT Including - Modum elevated body temperature detection camera (640x512, 15mm lens), blackbody, Modum camera tripod, Modum camera wall mount, Blackbody wall mount, Blackbody tripod, laptop (pre-configured), Modum PSU, 5m cable assembly & carry case
RCF-KIT-FD384H-T	COMPLETE KIT Including - Modum elevated body temperature detection camera (384x288, 7.8mm lens), blackbody, Modum camera trolley, Blackbody wall mount, Blackbody tripod, laptop (pre-configured), Modum PSU, 5m cable assembly & carry case
RCF-KIT-FD640H-T	COMPLETE KIT Including - Modum elevated body temperature detection camera (640x512, 15mm lens), blackbody, Modum camera trolley, Blackbody wall mount, Blackbody tripod, laptop (pre-configured), Modum PSU, 5m cable assembly & carry case

If the laptop is not required, then change the main part code from RCF-KIT-XXXXX to RCF-KIT2-XXXXX