Warning!

Please read the user manual included in this work as it contains important information related with safety of installation and use of the device.
Only persons who read the user manual may use the device.
The user manual must be kept because it may be required in the future. The device is to be used exclusively for purposes specified in this user manual.
The device must be unpacked prior to starting-up. After removing the packaging make sure the device is in working order.
If the product has defects, it should not be used until it is repaired.
The product is intended for use at home and commercial use and may not be used for other than intended use.
The manufacturer is not liable for damages resulting from not adhering to the rules contained in the user manual, therefore, we recommend to follow the aforementioned safety rules for operation and maintenance of the device. In this way you will ensure yourself safety and avoid causing damage to the device.
The manufacturer and the supplier are not liable for losses or damages arising out of the product, including financial or intangible losses, loss of profits, income, data, pleasure from use of the product or other products related with it - indirect, incidental or consequential loss or damage. The above provisions apply whether the loss or damage concerns:
1. Deterioration of quality or the lack of operation of the products or products related with it due to damage as well as the lack of access to the product when it is undergoing repair, which results in stoppage the loss of user's time or a break in business activity;
2. Improper results of operation of the product or products related with it;
3. It applies to losses and damages according to any legal category, including negligence and other losses, termination of a contract, expressed or implied guarantee and strict liability (even if the manufacturer or the supplier was notified about the possibility of occurrence of such damages).

Safety measures:
Particular attention at designing was directed to quality standards of the device where ensuring safety of operation is the most important factor.
The device must be secured against contact with caustic, staining and viscous fluids.

The device was designed in such a way that it restarts operation when power supply is restored after a break.
Attention! We recommend using protections to further protect the device from possible overvoltages in installations. Surge protectors are effective protection against accidental pass to the device voltages higher than the rated. Damages caused by pass the voltages higher than specified in manual, are not under warranty.
Turn off the device before transporting it.
Prior to connecting the device to a power source check whether the supplied voltage is consistent with rated voltage specified in the user manual.

Proper product disposal:
A marking of a crossed out waste bin indicates that the product may not be disposed together with other household waste in the entire EU. To avoid possible damage to the natural environment of health due to uncontrolled waste disposal, therefore, it should be handed over for recycling, propagating in this way sustainable use of natural resources.
To return a worn-out product, use a collection and disposal system of this type of equipment or contact a seller from whom it was purchased. He will then be recycled in an environmentally-friendly way.

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User Manual

Code: TPC-BF2221-HTM+TPC-HBB-CHW

HUMAN BODY TEMPERATURE MEASUREMENT SYSTEM **TPC-BF2221-HTM+TPC-HBB-CHW**

DAHUA

The camera together with the BLACK BODY module is used for precise measurement of body temperature and in case of exceeding the set threshold, to trigger the preset alarm action. The possibility of superimposing a thermal image on a visual image results in much greater readability compared to traditional thermal imaging cameras.

Thanks to the 1080p resolution, detailed supervision can be carried out, and the use of the BLACKBODY standard (an additional element of the system) ensures high temperature measurement accuracy of ± 0.3°C. The BLACK BODY module allows temperature measurement with high precision and very good stability.

The kit consists of a thermal imaging camera TPC-BF2221-HTM and Black Body TPC-HBB-CHW.

Sensor:	Uncooled VOx microbolometer
Matrix size:	256 x 192 px
Pixel pitch:	17 µm
Thermal sensitivity (NETD):	< 50 mK @ F1.0
Spectral range:	8 µm ... 14 µm
Temperature measurement range:	30 °C ... 45 °C ± 0.3 °C - with the Black body module
Color palettes:	18
Lens:	7.5 mm
View angle:	32 °
Resolution:	1280 x 960 - 1.3 Mpx, 1024 x 768, 640 x 480

VIDEO CAMERA:

Sensor:	1/2.8 " Progressive Scan CMOS
Matrix size:	2.1 Mpx
Lens:	6 mm
View angle:	53 °
Optical zoom:	–
Digital zoom:	–
Min. illumination:	• 0.01 Lux (color) • 0.001 Lux (B/W)
Range of IR illumination:	50 m

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Resolution:	1920 x 1080 - 1080p 1280 x 720 - 720p
Video output:	–
RS-485 interface:	✔
Memory card slot:	Micro SD memory cards up to 256GB support (possible local recording)
Image compression method:	H.265 / H.264M / H.264H / H.264B
Alarm inputs / outputs:	1 / 1
Audio:	• External microphone input • Audio output • Speaker built-in • Bi-directional audio streaming support
Bitrate:	640 ... 8192 kbps - H.264
Main stream frame rate:	25 fps @ 1280 x 960 25 fps @ 1080p
Network interface:	10/100 Base-T (RJ-45)
Network protocols:	IPv4/IPv6, HTTP, HTTPS, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, SNMP, QoS, UPnP, NTP, Multicast, SFTP, IEEE 802.1x
WEB Server:	Built-in
Max. number of on-line users:	20
ONVIF:	✔
Mobile phones support:	Port 37777 • Android: Free application DMSS • iOS (iPhone): Free application DMSS
Default IP address:	192.168.1.108
Default admin user / password:	admin / - The administrator password should be set at the first start
Web browser access ports:	80, 37777
PC client access ports:	37777
Mobile client access ports:	37777
Port ONVIF:	80
RTSP URL:	rtsp://admin:hasło@192.168.1.108:554/cam/realmonitor?channel=1&subtype=0 - Main stream rtsp://admin:hasło@192.168.1.108:554/cam/realmonitor?channel=1&subtype=1 - Sub stream
Main features:	• The possibility of overlapping the image from a thermal imaging camera in a classic image • 2D-DNR, 3D-DNR - Digital Noise Reduction • ROI - improve the quality of selected parts of image • WDR - Wide Dynamic Range • BLC/HLC - Back Light / High Light Compensation • ICR - Movable InfraRed filter • AGC - Automatic Gain Control • Sharpness - sharper image outlines • Mirror - Mirror image • Auto White Balance

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Power supply:	• PoE (802.3af), • ePoE • 12 V DC / 1.5 A
Power consumption:	≤ 18 W
Housing:	Compact - Metal
Color:	White
"Index of Protection":	IP67
Operation temp:	10 °C ... 30 °C
Weight:	1.4 kg
Dimensions:	365 x 175 x 176 mm
Supported languages:	English
Manufacturer / Brand:	DAHUA
Guarantee:	2 years

Black body:

Operation temp:	35 °C
Measurement resolution:	0.1 °C
Measurement stability:	± 0.1 °C ... ± 0.2 °C / 30 minutes
The surface of the radiator:	70 x 70 mm
Effective emission:	0.97
Ambient temperature:	5 °C ... 50 °C
Permissible relative humidity:	0 % ... 80 %
Weight:	2.6 kg
Dimensions:	184 x 125 x 125 mm
Guarantee:	2 years

Camera:

Black Body:

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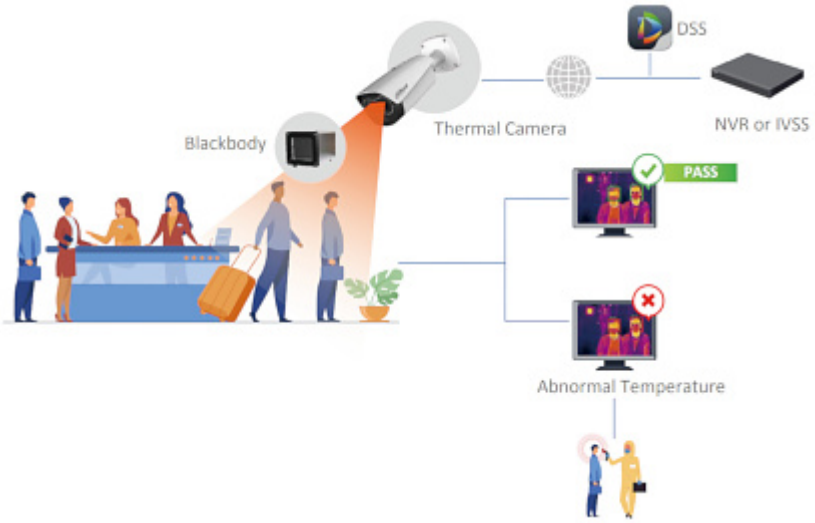
Schematic diagram (principle of operation):



PACKAGE

Dimensions (L x W x H): 0x0x0 mm	Gross Weight: 0 kg

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