

Code: TPC-BF2120-T1F4

# IP HYBRID THERMAL IMAGING CAMERA **TPC-BF2120-T1F4** 1.0 mm - 1.3 Mpx, 4 mm - 1080p DAHUA Net: **1 336.21 EUR** Gross: **1 643.54 EUR**

The TPC-BF2120-T1F4 Thermal Imaging Camera is a modern solution that allows to detect the presence of people, animals and vehicles regardless of prevailing vision conditions. The device is equipped with sensitive VOx microbolometer that allows to observe the objects in fog, smoke and in the absence of illumination. An additional advantage of the TPC series cameras is the ability to detect fire and send a signal to the alarm control panel when it occurs.

PoE powering possibility, compatible with the 802.3af standard makes the device more universal and easier to install.



## SPECIFICATION

Sensor:	Uncooled VOx microbolometer
Matrix size:	160 x 120 px
Pixel pitch:	12 $\mu$ m
Thermal sensitivity (NETD):	< 50 mK @ F1.1
Spectral range:	7 $\mu$ m ... 14 $\mu$ m
Temperature measurement:	<ul style="list-style-type: none"><li>• Spot</li><li>• Line</li><li>• Area</li></ul> max. 8 positions
Temperature measurement range:	<ul style="list-style-type: none"><li>• -20 °C ... +150 °C</li><li>• 150 °C ... +450 °C</li></ul>
Color palettes:	14
Lens:	1.0 mm
View angle:	56 °
Resolution:	1280 x 960 - 1.3 Mpx , 1280 x 720 - 720p
Operation modes:	Main and sub streams may be in any configuration  Firmware 2.622.0000001.7.R, build : 2019-01-04 <ul style="list-style-type: none"><li>• Main stream : 1280 x 960, 1280 x 720</li><li>• Sub stream : 640 x 480, 320 x 240</li></ul>

## VIDEO CAMERA:

Sensor:	1/2.8 " Progressive Scan Exmor CMOS
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Matrix size:	2.1 Mpx
Scanning system:	Progressive
Lens:	4 mm
View angle:	<ul style="list-style-type: none"> <li>• 86 ° (manufacturer data)</li> <li>• 75 ° (our tests result)</li> </ul>
Optical zoom:	—
Digital zoom:	—
Min. illumination:	0.005 Lux (color) @ F1.8 0.0005 Lux (B/W) @ F1.8
Range of IR illumination:	35 m
S/N ratio:	> 50 dB (AGC off)
Resolution:	1920 x 1080 - 1080p 1280 x 720 - 720p 704 x 576 - D1
Operation modes:	<p>Main and sub streams may be in any configuration</p> <p>Firmware 2.622.0000001.7.R, build : 2019-01-04</p> <ul style="list-style-type: none"> <li>• Main stream : 1920 x 1080, 1280 x 720, 704 x 576</li> <li>• Sub stream : 704 x 576, 353 x 288</li> </ul>

General information:

Standard:	TCP/IP, CVBS
Video output:	CVBS - 1 Vpp / 75 Ω, BNC
RS-485 interface:	✓
Memory card slot:	Micro SD memory cards up to 128GB support (possible local recording)
Image compression method:	H.264 / MJPEG
Alarm inputs / outputs:	2 / 1
Audio:	<ul style="list-style-type: none"> <li>• External microphone input</li> <li>• Audio output</li> </ul>
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, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour, IEEE 802.1x
WEB Server:	Built-in, NVR compliance
Max. number of on-line users:	20
ONVIF:	16.12
Mobile phones support:	<p>Port 37777</p> <ul style="list-style-type: none"> <li>• Android: Free application <a href="#">gDMSS Plus</a></li> <li>• iOS (iPhone): Free application <a href="#">iDMSS Plus</a></li> </ul>
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:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=0 - Main stream rtsp://admin:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=1 - Sub stream
Main features:	<ul style="list-style-type: none"> <li>• The possibility of overlapping the image from a thermal imaging camera in a classic image</li> <li>• 3D-DNR - Digital Noise Reduction</li> <li>• ROI - improve the quality of selected parts of image</li> <li>• WDR - Wide Dynamic Range</li> <li>• F-DNR (Defog) - Reduction of image noise caused by precipitation</li> <li>• PIP - Picture In Picture</li> <li>• IVS analysis : crossing the line (tripwire), intrusion, abandoned/missing object, object detection (people, vehicle), fire detection - The IVS analysis functions can be defined independently for the thermal imaging camera and the vision camera</li> <li>• Audio detection</li> <li>• Motion Detection</li> <li>• Configurable Privacy Zones</li> <li>• ICR - Movable InfraRed filter</li> <li>• BLC/HLC - Back Light / High Light Compensation</li> <li>• AGC - Automatic Gain Control</li> <li>• Sharpness - sharper image outlines</li> <li>• Mirror - Mirror image</li> <li>• Day/Night mode (color/b&amp;w/auto)</li> </ul>
Power supply:	12 V DC / 1 A (power adapter included)
Power consumption:	≤ 12 W
Housing:	Compact - Metal
Color:	White
"Index of Protection":	IP67
Operation temp:	-30 °C ... 60 °C
Weight:	0.92 kg
Dimensions:	239 x 90 x 90 mm
Supported languages:	English, French, Spanish, Italian
Manufacturer / Brand:	DAHUA
Guarantee:	<b>3 years</b>

## PRESENTATION



Side view:



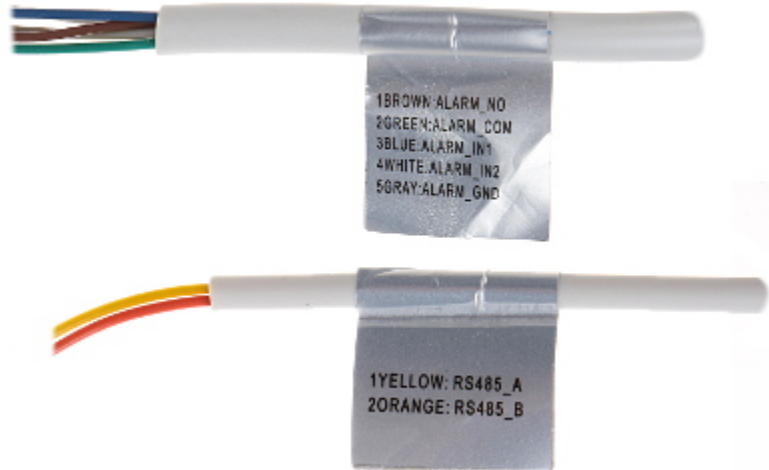
Mounting side view:



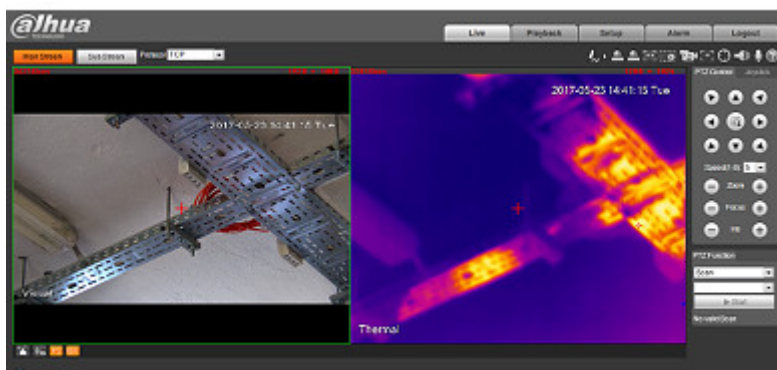
Camera connectors:



Connectors description:



Example captures of device interface:



## OUR TESTS

Camera image at artificial illumination (about 30Lux):



Camera image at night conditions with internal built-in IR illuminator on:



Camera image at direct strong light opposite to camera:



The image from thermal imaging camera in sample color palettes - 0 Lux illumination:

