Hikvision DS-2TD2617-10/PA Thermal & Optical Bi-spectrum Network Bullet Camera, equipped with built-in GPU which supports intelligent behavior analysis algorithm, can realize high-precision VCA detection and real-time alarm. It is applied to perimeter protection and fire prevention purposes in commercial facilities such as residential, retail, villa, parking lot, museum, data centers and so on. The pre-alarm system helps you discover unexpected events immediately and protects your property.

**Key Feature**

- Behavior analysis function, based on deep learning algorithm: line crossing, intrusion, region entrance & exit
- Temperature exception alarm
- Fire detection algorithm
- 160 × 120 (the resolution of output image is 320 × 240) resolution 17 μm, VOx UFPA, NETD ≤ 40 mK (25 °C, F# = 1.1)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR
## Specification

### Thermal Module

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image Sensor</strong></td>
<td>Vanadium Oxide Uncooled Focal Plane Arrays</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>160 × 120 (the resolution of output image is 320 × 240)</td>
</tr>
<tr>
<td><strong>Pixel Interval</strong></td>
<td>17 μm</td>
</tr>
<tr>
<td><strong>Response Waveband</strong></td>
<td>8 μm to 14 μm</td>
</tr>
<tr>
<td><strong>NETD (Noise Equivalent Temperature Difference)</strong></td>
<td>≤ 40 mk (25 °C,F# = 1.1)</td>
</tr>
<tr>
<td><strong>Focal Length</strong></td>
<td>9.7 mm</td>
</tr>
<tr>
<td><strong>IFOV</strong></td>
<td>2.74 mrad</td>
</tr>
<tr>
<td><strong>Field of View</strong></td>
<td>15.96° × 12° (H × V)</td>
</tr>
<tr>
<td><strong>Min. Focusing Distance</strong></td>
<td>1.2 m</td>
</tr>
<tr>
<td><strong>Aperture</strong></td>
<td>F 1.1</td>
</tr>
<tr>
<td><strong>Digital Zoom</strong></td>
<td>×2, ×4, ×8</td>
</tr>
</tbody>
</table>

### Optical Module

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image Sensor</strong></td>
<td>1/2.7” Progressive Scan CMOS</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>2688 × 1520</td>
</tr>
<tr>
<td><strong>Min. Illumination</strong></td>
<td>Color: 0.0089 Lux @(F1.6, AGC ON), B/W: 0.0018 Lux @(F1.6, AGC ON)</td>
</tr>
<tr>
<td><strong>Shutter Speed</strong></td>
<td>1 s to 1/100,000 s</td>
</tr>
<tr>
<td><strong>Focal Length</strong></td>
<td>8 mm</td>
</tr>
<tr>
<td><strong>Field of View</strong></td>
<td>39.42° × 22.14° (H × V)</td>
</tr>
<tr>
<td><strong>Aperture</strong></td>
<td>F 1.7</td>
</tr>
<tr>
<td><strong>WDR</strong></td>
<td>120 dB</td>
</tr>
</tbody>
</table>

### Image Effect

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Picture in Picture</strong></td>
<td>Display partial image of thermal channel on the full screen of optical channel</td>
</tr>
<tr>
<td><strong>Bi-spectrum Image Fusion</strong></td>
<td>Display the details of optical channel on thermal channel</td>
</tr>
<tr>
<td><strong>Target Coloration</strong></td>
<td>Yes. Supported in white hot and black hot mode.</td>
</tr>
</tbody>
</table>

### Smart Function

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VCA (Video Content Analysis)</strong></td>
<td>4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), up to 8 VCA rules in total.</td>
</tr>
<tr>
<td><strong>Temperature Measurement</strong></td>
<td>3 temperature measurement rule types, 21 rules in total (10 points, 10 areas, and 1 line).</td>
</tr>
<tr>
<td><strong>Temperature Range</strong></td>
<td>-20 °C to + 150 °C (-4 °F to + 302°F)</td>
</tr>
<tr>
<td><strong>Temperature Accuracy</strong></td>
<td>± 8 °C (± 14.4 °F)</td>
</tr>
<tr>
<td><strong>Fire Detection</strong></td>
<td>Dynamic fire detection, up to 10 fire points detectable.</td>
</tr>
</tbody>
</table>

### Illuminator

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IR Distance</strong></td>
<td>Up to 40 m</td>
</tr>
<tr>
<td><strong>IR Intensity and Angle</strong></td>
<td>Automatically adjusted</td>
</tr>
<tr>
<td><strong>Audible and Visual Alarm</strong></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>---</td>
</tr>
<tr>
<td>White Light Range</td>
<td>Up to 40 m</td>
</tr>
<tr>
<td>Visual Alarm</td>
<td>Yes. White light used as the visual alarm, flashing frequency adjustable</td>
</tr>
<tr>
<td>Audio alarm</td>
<td>Yes. 6 audio alarms are supported to cover all kinds of alarm.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Video &amp; Audio</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Stream</td>
<td>Optical channel</td>
</tr>
<tr>
<td>50 HZ: 25 fps (2688 x 1520, 1920 x 1080, 1280 x 720)</td>
<td></td>
</tr>
<tr>
<td>60 Hz: 30 fps (2688 x 1520, 1920 x 1080, 1280 x 720)</td>
<td></td>
</tr>
<tr>
<td>Thermal channel</td>
<td>25fps (1280 x 720, 704 x 576, 640 x 480, 352 x 288, 320 x 240)</td>
</tr>
<tr>
<td>Sub-stream</td>
<td>Optical channel</td>
</tr>
<tr>
<td>50 HZ: 25 fps (704 x 576, 352 x 288, 176 x 144)</td>
<td></td>
</tr>
<tr>
<td>60 Hz: 30 fps (704 x 480, 352 x 240, 176 x 120)</td>
<td></td>
</tr>
<tr>
<td>Thermal channel</td>
<td>25fps (704 x 576, 352 x 288, 320 x 240)</td>
</tr>
<tr>
<td>Video Compression</td>
<td>Main Stream: H.265/H.264</td>
</tr>
<tr>
<td></td>
<td>Sub-Stream: H.265/H.264/MJPEG</td>
</tr>
<tr>
<td>Audio Compression</td>
<td>G.711u/G.711a/G.722.1/MP2L2/G.726/PCM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Network</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocols</td>
<td>IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE</td>
</tr>
<tr>
<td>Network Storage</td>
<td>MicroSD/SDHC/SDXC card (up to 256 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)</td>
</tr>
<tr>
<td>API</td>
<td>ISAPI, HIKVISION SDK, third-party management platform, ONVIF (Profile S, Profile G, Profile T)</td>
</tr>
<tr>
<td>Simultaneous Live View</td>
<td>Up to 20 channels</td>
</tr>
<tr>
<td>User/Host Level</td>
<td>Up to 32 users, 3 levels: Administrator, Operator, User</td>
</tr>
<tr>
<td>Security</td>
<td>User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x(EAP-MD5, EAP-TLS), access control, IP address filtering</td>
</tr>
<tr>
<td>Client</td>
<td>iVMS-4200, Hik-Connect</td>
</tr>
<tr>
<td>Web Browser</td>
<td>Live view (plug-in allowed) : Internet Explorer 11</td>
</tr>
<tr>
<td></td>
<td>Live view (plug-in free) : Chrome 57.0+ , Firefox 52.0+</td>
</tr>
<tr>
<td></td>
<td>Local service : Chrome 57.0+ , Firefox 52.0+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Interface</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Input</td>
<td>2-ch inputs (0-5 VDC)</td>
</tr>
<tr>
<td>Alarm Output</td>
<td>2-ch relay outputs, alarm response actions configurable</td>
</tr>
<tr>
<td>Alarm Action</td>
<td>SD recording/relay output/smart capture/FTP upload/email linkage/audio alarm/white light alarm</td>
</tr>
<tr>
<td>Audio Input</td>
<td>1, 3.5 mm Mic in/Line in interface</td>
</tr>
<tr>
<td>Audio Output</td>
<td>Line input: 2 to 2.4 V [p-p], output impedance: 1 KΩ ± 10%</td>
</tr>
<tr>
<td>Communication Interface</td>
<td>1, RJ45 10 M/100 M self-adaptive Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>1, RS-485 interface</td>
</tr>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Menu language</strong></td>
<td>32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil)</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>12 VDC ± 20%, two-core terminal block</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>12 VDC ± 20%: 0.65 A, max. 7.5 W</td>
</tr>
<tr>
<td></td>
<td>PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 8 W</td>
</tr>
<tr>
<td><strong>Working Temperature/Humidity</strong></td>
<td>Temperature: -40 °C to 65 °C (-40 °F to 149 °F)</td>
</tr>
<tr>
<td></td>
<td>Humidity: 95% or less</td>
</tr>
<tr>
<td><strong>Protection Level</strong></td>
<td>IP66 Standard</td>
</tr>
<tr>
<td></td>
<td>TVS 6000V lightning protection, surge protection, voltage transient protection</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>358.3 mm × 113.5 mm × 115.2 mm (14.10” × 4.47” × 4.53”)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Approx. 1.76 kg (3.88 lb)</td>
</tr>
</tbody>
</table>
**DRI Range Table**

*The table is only for reference and the performance may vary according to different environment.*

*The optimal human detection, recognition, and identification distances are calculated according to Johnson’s Criteria.*

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

<table>
<thead>
<tr>
<th>Detection Range (Vehicles: 1.4 × 4.0 m)</th>
<th>Detection Range (Humans: 1.8 × 0.5 m)</th>
<th>Recognition Range (Vehicles: 1.4 × 4.0 m)</th>
<th>Recognition Range (Humans: 1.8 × 0.5 m)</th>
<th>Identification Range (Vehicles: 1.4 × 4.0 m)</th>
<th>Identification Range (Humans: 1.8 × 0.5 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>875 m</td>
<td>285 m</td>
<td>219 m</td>
<td>71 m</td>
<td>109 m</td>
<td>36 m</td>
</tr>
</tbody>
</table>

**Smart Function Table**

*The table is only for reference and the performance may vary according to different environment.*

<table>
<thead>
<tr>
<th>VCA Range (Vehicles: 1.4 × 4.0 m)</th>
<th>VCA Range (Humans: 1.8 × 0.5 m)</th>
<th>Temperature Measurement (Object: 2 × 2 m)</th>
<th>Temperature Measurement (Object: 1 × 1 m)</th>
<th>Fire Detection (Object: 2 × 2 m)</th>
<th>Fire Detection (Object: 1 × 1 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>133 m</td>
<td>48 m</td>
<td>235 m</td>
<td>118 m</td>
<td>588 m</td>
<td>294 m</td>
</tr>
</tbody>
</table>

**Available Model**

DS-2TD2617-10/PA
**Dimension**

358.3 mm (14.10")

337.2 mm (13.27")

113.5 mm (4.47")

115.2 mm (4.35")

**Accessory**

- DS-1275ZJ-S-SUS
  - Vertical Pole Mount

- DS-1276ZJ-S-SUS
  - Corner Mount

**COMPLIANCE NOTICE:** The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.