

## HM-TD5537T-15/W

Thermographic Thermal & Optical Bi-spectrum Network MINI Positioning System



HIKMICRO HM-TD5537T-15/W Thermographic Thermal & Optical Bi-spectrum Network MINI Positioning System 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 fire-prevention purposes in scenes such as transformer substation, recycling center, gas station, and factory. 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 for fire prevention
- Fire detection algorithm
- 384 × 288 resolution 17  $\mu\text{m}$ , VOx UFPA, NETD  $\leq 35$  mK (25°C, F# = 1.0)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR
- High quality detector with 10 years guarantee

## Specification

### Thermal Module

|                        |  |
|------------------------|--|
| Image Sensor           | Vanadium Oxide Uncooled Focal Plane Arrays |
| Resolution             | 384 × 288                                  |
| Pixel Pitch            | 17 μm                                      |
| Spectral Range         | 8 μm to 14 μm                              |
| NETD                   | ≤ 35 mK (25°C, F# = 1.0)                   |
| Focal Length           | 15 mm                                      |
| IFOV                   | 1.13 mrad                                  |
| Aperture               | F1.0                                       |
| Field of View          | 24.55° × 18.54° (H × V)                    |
| Min. Focusing Distance | 0.5 m                                      |
| Digital Zoom           | × 2, × 4, × 8                              |

### Optical Module

|                   |  |
|-------------------|--|
| Image Sensor      | 1/2.8" Progressive Scan CMOS                                     |
| Resolution        | 2688 × 1520, 4 MP  |
| Min. Illumination | Color: 0.05 Lux @ (F1.6, AGC ON), B/W: 0.01 Lux @ (F1.6, AGC ON) |
| Field of View     | 58.4° × 33.8° (H × V) to 2.14° × 1.2° (H × V)                    |
| Focal Length      | 4.8 mm to 153 mm, 32 ×   |
| Aperture (Range)  | F1.2 to F4.4   |
| Focus Mode        | Semi-auto, manual  |
| Digital Zoom      | × 2, × 4, × 8, × 16  |
| Shutter Speed     | 1 s to 1/100,000 s   |
| WDR               | 120 dB   |
| Optical Defog     | Yes  |

### Image Effect

|                    |  |
|--------------------|--|
| Picture in Picture | Display partial image of thermal channel on the full screen of optical channel |
| Target Coloration  | Yes. Supported in white hot and black hot mode.                                |

### PTZ

|                   |  |
|-------------------|--|
| Movement Range    | Pan: 360° Continuous Rotate; Tilt: From -90° to +90° (auto flip)   |
| Pan Speed         | Configurable, From 0.5°/s to 90°/s   |
| Tilt Speed        | Configurable, From 0.5°/s to 40°/s   |
| Proportional Zoom | Yes  |
| Presets           | 300  |
| Patrol Scan       | 8 patrols; Up to 32 presets per patrol   |
| Power Off Memory  | Yes  |
| Park              | Preset/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan                                    |
| PT Status         | Turn On/Turn Off   |
| Scheduled Task    | Preset/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Dome Reboot/Dome Adjust/Aux Output |

### Illuminator

|                        |                        |
|------------------------|------------------------|
| IR Distance            | Up to 30 m             |
| IR Intensity and Angle | Automatically adjusted |

| Smart Function          |   |
|-------------------------|---|
| VCA                     | 4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), 10 scenes and 8 VCA rules for each scene.   |
| Temperature Measurement | 3 temperature measurement rule types, 273 presets as scene, 21 rules of each scene (10 points, 10 areas, and 1 line)  |
| Temperature Range       | -20°C to 550°C (-4°F to 1022°F)   |
| Temperature Accuracy    | Max. ( $\pm 2^{\circ}\text{C}$ , $\pm 2\%$ )  |
| Fire Detection          | Dynamic fire and smoke detection, up to 10 fire points and 10 smoke points detectable.  |
| Video and Audio         |   |
| Main Stream             | Optical channel<br>50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720)<br>60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720)<br>Thermal channel<br>50 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 512, 384 × 288) |
| Sub-stream              | Optical channel<br>50 Hz: 25fps (704 × 576, 352 × 288)<br>60 Hz: 30 fps (704 × 576, 352 × 288)<br>Thermal channel<br>50 fps (704 × 576, 640 × 512, 384 × 288)   |
| Video Compression       | Main stream: H.265+/H.265/H.264+/ H.264<br>Sub-stream: H.265/H.264/MJPEG  |
| Audio Compression       | G.711alaw/G.711ulaw/G.722.1/G.726/MP2L2/AAC/PCM   |
| Network                 |   |
| Protocols               | IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE  |
| Network Storage         | MicroSD/SDHC/SDXC card (up to 128 GB) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)  |
| API                     | ISAPI, HIKVISION SDK, third-party management platform, ONVIF (Profile S, Profile G, Profile T)  |
| Simultaneous Live View  | Up to 20 channels   |
| User/Host level         | Up to 32 users. 3 levels: administrator, operator, user   |
| Security                | User authentication (ID and Password), MAC address binding, HTTPS encryption, IEEE 802.1x(EAP-MD5, EAP-TLS), access control, IP address filtering   |
| Client                  | iVMS-4200, Hik-Connect  |
| Web Browser             | Live view (plug-in allowed): Internet Explorer 11<br>Live view (plug-in free): Chrome 57.0 +, Firefox 52.0 +<br>Local service: Chrome 57.0 +, Firefox 52.0 +  |
| Interface               |   |
| Alarm Input             | 2-ch inputs (0 to 5 VDC)  |
| Alarm Output            | 2-ch relay outputs, alarm response actions configurable   |
| Alarm Action            | Preset/patrol scan/SD card record/relay output/smart capture/FTP upload/email linkage   |
| Audio Input             | 1   |
| Audio Output            | 1   |

|                              |  |
|------------------------------|--|
| Communication Interface      | 1, RJ45 10 M/100 M self-adaptive Ethernet interface.<br>1, RS-485 interface  |
| <b>General</b>               |  |
| Menu Language                | 32 languages<br>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) |
| Power Supply                 | 24 VDC   |
| Power Consumption            | 20 W   |
| Working Temperature/Humidity | -40°C to 70°C (-40°F to 158°F)<br>90% or less  |
| Wiper                        | Yes  |
| Protection Level             | IP67 Standard<br>TVS 6000V lightning protection, surge protection, voltage transient protection  |
| Dimensions                   | 321 mm × 194 mm × 153 mm(12.64" × 7.64" × 6.02")   |
| Weight                       | Approx. 4.8 kg (10.582 lb)   |

## DRI Range Table

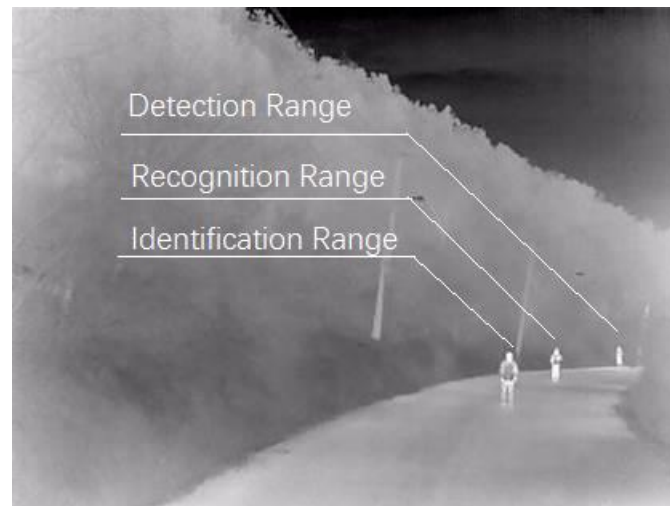
\* The table is only for reference and the performance may vary according to different environment.

\* The optimal 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.



| Detection Range<br>(Vehicles: 1.4 ×<br>4.0 m) | Detection Range<br>(Humans: 1.8 ×<br>0.5 m) | Recognition<br>Range (Vehicles:<br>1.4 × 4.0 m) | Recognition<br>Range (Humans:<br>1.8 × 0.5 m) | Identification<br>Range (Vehicles:<br>1.4 × 4.0 m) | Identification<br>Range (Humans:<br>1.8 × 0.5 m) |
|---|---|---|---|--|--|
| 1353 m  | 441 m                                       | 338 m   | 110 m   | 169 m  | 55 m   |

## Smart Function Table

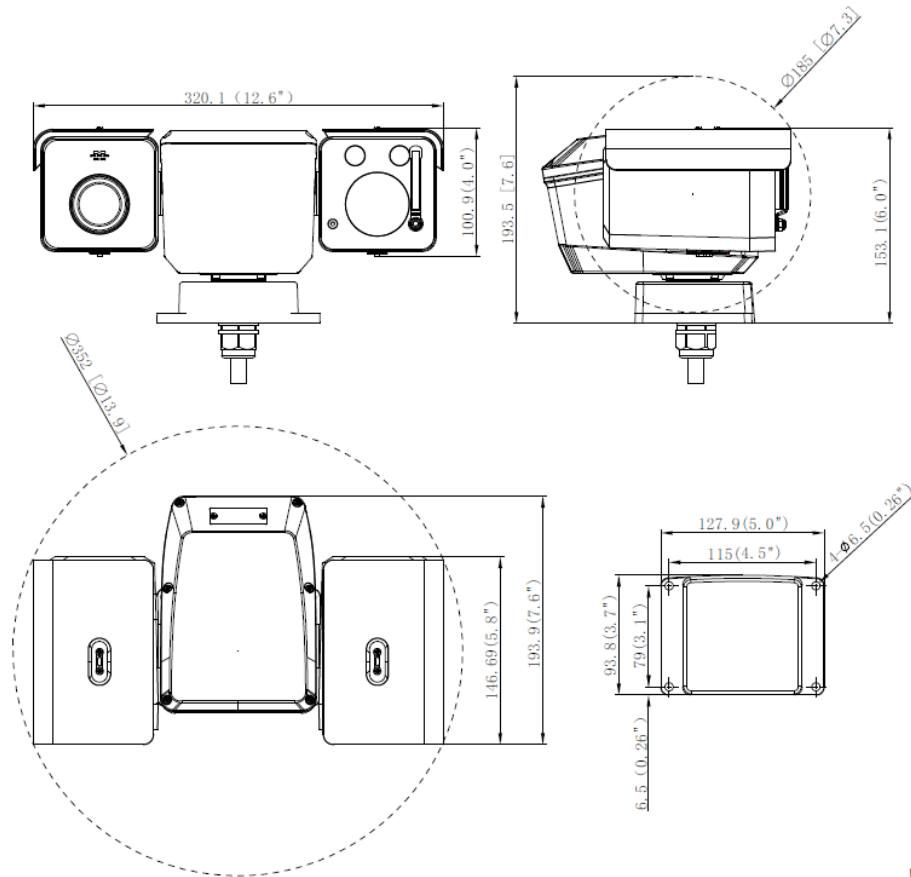
\* The table is only for reference and the performance may vary according to different environment.

| VCA Range<br>(Vehicles: 1.4 ×<br>4.0 m) | VCA Range<br>(Humans: 1.8 ×<br>0.5 m) | Temperature<br>Measurement<br>(Object: 2 × 2 m) | Temperature<br>Measurement<br>(Object: 1 × 1 m) | Fire Detection<br>(Object: 2 × 2 m) | Fire Detection<br>(Object: 1 × 1 m) |
|---|---------------------------------------|---|---|-------------------------------------|-------------------------------------|
| 450 m                                   | 150 m                                 | 353 m   | 176 m   | 882 m                               | 441 m                               |

## Available Model

HM-TD5537T-15/W

## Dimension



Unit:mm (inch)

**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.

