

# HTD1217-V1-2

# Thermal & Optical Network Turrent Camera



Hikvision DS-2TD1217-3/V1 Thermal & Optical Network Turret Camera equipped with built-in GPU which support intelligent behavior analysis algorithm, can realize high precision VCA detection and real-time alarm. It is applied to fire-prevention purposes in indoor space such as: engine room, ATM, conference room, warehouse, museum, train station, gem, power station, and so on. The pre-alarm system helps you discover unexpected events immediately and protects you from property loss.

### Smart Function (Thermal Imaging)

* Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD less than 40 mk (25°C), F#=1.1
* Powerful behavior analysis function, based on deep learning algorithm: Line crossing, Intrusion, Region Entrance & Exit
* Reliable temperature exception alarm function
* Advanced fire detection algorithm
* Bi-spectrum image fusion, picture in picture preview

### Thermal Imaging Module Function

* 160 × 120 (the resolution of output image is 320 × 240) resolution sensor, high sensitivity sensor, support contrast adjustment
* Shutter adjustment in various modes
* 3D DNR, 15 palettes of color adjustable, image detail enhancement



**Specification**

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| **Thermal Module** |
| Image Sensor | Vanadium Oxide Uncooled Focal Plane Arrays |
| Max. Resolution | 160 × 120 (the resolution of output image is 320 × 240) |
| Pixel Interval | 17μm |
| Response Waveband | 8μm to 14μm |
| NETD | less than 40 mk (25°C), F#=1.1 |
| Lens (Focal Length) | 3.1 mm |
| MRAD | 5.48 mrad |
| Field of View | 50° × 37.2° (H × V) |
| Min. Focusing Distance | 0.2 m |
| Aperture | F1.1 |
| **Optical Module** |
| Max. Image Resolution | 1920 × 1080 |
| Image Sensor | 1/2.7” Progressive Scan CMOS |
| Min. Illumination | Color: 0.002 Lux @(F1.2,AGC ON), B/W: 0.0002 Lux @(F1.2, AGC ON) |
| Shutter Speed | 1s to 1/100,000s |
| Lens (Focal Length) | 4 mm |
| Field of View | 87° × 46.2°(H × V) |
| WDR | 120 WDR |
| Day & Night | IR cut filter with auto switch |
| **Image Function** |
| Bi-spectrum Image Fusion | Fusion view of thermal view and overlaid details of the optical channel |
| Picture in Picture | Combins details of thermal and optical image PIP, overlay thermal image on optical image |
| **Smart Function** |
| VCA (Video Content Analysis) | 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules. |
| Temperature Measurement | 3 temperature measurement rule types, 21 rules (10 points, 10 areas, and 1 line). |
| Temperature Range | -20 °C to +150 °C (-4 °F to +302°F) |
| Temperature Accuracy | ± 8 °C (± 14.4 °F) |
| Fire detection | Dynamic fire point detection, up to 10 fire points detectable. |
| **Infrared** |
| IR Distance | Up to 15 m |
| IR Intensity and Angle | Automatically adjusted |



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| **Network** |
| Main Stream | Visible Light: 50Hz: 25fps (1920 × 1080), 25fps (1280 × 960), 25fps (1280 × 720)Visible Light: 60Hz: 30fps (1920 × 1080), 30fps (1280 × 960), 30fps (1280 × 720) Thermal: 25fps (160 × 120 (the resolution of output image is 320 × 240)) |
| Sub Stream | Visible Light: 50Hz: 25fps (704 × 576), 25fps (640 × 480)Visible Light: 60Hz: 30fps (704 × 480), 30fps (640 × 480)Thermal: 25fps (160 × 120 (the resolution of output image is 320 × 240)) |
| Video Compression | H.265/H.264, H.265+/H.264+ encoding with Baseline/Main/High Profile |
| Audio Compression | G .711u/G.711a/G.722.1/MP2L2/G.726/PCM |
| Protocols | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour |
| Simultaneous Live View | Up to 20 |
| User/Host level | Up to 32 users, 3 levels: Administrator, Operator, User |
| Security Measures | User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering |
| **Integration** |
| Alarm Input | 1-ch inputs (0-5vDC) |
| Alarm Output | 1-ch relay outputs, alarm response actions configurable |
| Alarm Action | SD recording/Relay output/Smart capture/FTP upload/Email linkage |
| Audio Input | 1 3.5mm Mic in/Line in interface. Line input: 2-2.4V[p-p], output impedance:1KΩ±10% |
| Audio Output | Linear Level; Impedance: 600Ω |
| Reset | 1 Reset Button |
| Ethernet | 1 RJ45 10M/100M Self-adaptive Ethernet interface, 1 RS-485 interface |
| SD Memory Card | Built-in Micro SD card slot, support Micro SD/SDHC/SDXC card (up to 256G), support manual/alarm recording |
| Analog Video Output | 1.0V [p-p]/75Ω, PAL/NTSC/BNC |
| Application Programming | Open-ended API, support ISAPI, HIKVISION SDK and third-party management platform |
| Client | iVMS-4200 |
| Web Browser | IE9+, chrome31-chrome44, Firefox 30-Firefox51, Safari 5.02+(mac) |
| **General** |
| Menu language | English |
| Power | 12 VDC± 20%, two-core terminal block PoE (802.3af, class 3) |
| Power Consumption | 12 VDC ± 20%: 0.7 A, max. 8WPoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 8.5W |
| Working Temperature/Humidity | -30 °C to 60 °C (-22 °F to 140 °F), 95% or less |
| Protection Level | IP67 StandardTVS 6000V Lightning protection, surge protection, voltage transient protection |
| Dimensions | 134.2 mm × 123.9 mm × 107.7 mm (5.28 " × 4.87" × 4.24 ") |
| Weight | TBD |



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| **VCA Range (Vehicles: 1.4×4.0m)** | **VCA Range (Humans: 1.8×0.5m)** | **Temperature Measurement (Object:2×2 m)** | **Temperature measurement (Object:1×1 m)** | **Fire Detection (Object:2×2 m)** | **Fire Detection (Object:1×1 m)** |
| 63 m | 21 m | 66 m | 33 m | 180 m | 90 m |

### Wide Range Coverage

**Detection Range Table**

***\**** *The table is only for reference, the performance may vary from camera to camera.*

**Smart functions Range**

Different targets trigger the VCA events within different range limits.

There is range limit for detecting, recognizing, and identifying human/vehicle targets.

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| **Detection Range (Vehicles: 1.4×4.0m)** | **Detection Range (Humans: 1.8×0.5m)** | **Recognition Range (Vehicles: 1.4×4.0m)** | **Recognition Range (Humans: 1.8×0.5m)** | **Identification Range (Vehicles: 1.4×4.0m)** | **Identification Range (Humans: 1.8×0.5m)** |
| 280 m | 91 m | 70 m | 23 m | 35 m | 11 m |

**Available Model**

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## Dimensions

