

# HP-TVC Series

## Dual Sensor Thermal Security Camera



\*The picture is for reference only, the appearance of the product is subject to the actual production

### System Overview

This series Long Range Thermal Imaging Camera products are based on the latest 7th generation uncooled infrared technology and with continuous zoom infrared optical technology. It also equipped with high resolution daylight camera with defog function for long distance daytime details observation. Support GPS, electronic map option with auto-tracking, fire-alarm, and smart analysis functions.

### Technical Specification

#### Thermal Camera

Image Sensor	Vox Detector
Effective Pixels	640(H)x512(V)/ 384(H)x288(V)
Pixel Size	12/17μm
Thermal Sensitivity (NETD)	≤40mK@f/4.0
Spectral Range	7 ~ 14μm
SDE	Support SDE digital image processing
Pseudo Color	16 pseudo color and B/W, B/W inverse
AGC	Support
Digital Zoom	8X
Strong Light Protect	Support
Temp Correction	Thermal imaging clarity is not affected by temperature
Scene mode	Support multi-configuration scenarios
Lens Servo	Support lens preset, focal length return and location
Azimuth Information	Support angle real-time return and positioning
Parameter Setting	OSD Menu Remote Call Operations.
Life Index Recording	Working/shutter times, ambient/sensor temperature

- 384x288, 640x512 thermal sensor
- 105/120/155/190/230/300mm zoom thermal lens
- 30x/36X/47/64/83X CCTV lens with 16X digital zoom
- NETD 40mk enhance the imaging details
- IP66 and - 40 °C low temperature resistance

### Thermal Lens

Focal Lens	21-105mm; 30-120mm; 31-155mm; 38-190mm 22-230mm; 20-300mm
FOV (384x288, 17μm)	21-105mm: 18.5°x13.9°~3.7°x2.8° 30-120mm: 12.4°x9.3°~3.1°x2.3° 31-155mm: 12.4°x9.3°~2.5°x1.8° 38-190mm: 10.6°x8°~2.1°x1.6° 22-230mm: 17°x12.6°~1.7°x1.3° 20-300mm: 18.5°x14.0°~1.2°x1.9°
FOV (640x512, 17μm)	21-105mm: 30°x23°~6.2°x4.6° 30-120mm: 20°x15°~5°x3.8° 31-155mm: 20°x15°~4°x3° 38-190mm: 17.6°x13.2°~3.5°x2.6° 22-230mm: 28°x21°~2.7°x2° 20-300mm: 30.4°x24.6°~2.1°x1.6°
Effective Distance (Vehicle: 2.3x2.3m) D: Detection R: Recognition I: Identification	21-105mm: 8.6km (D); 2.4km (R); 1.18km (I) 30-120mm: 10km (D); 2.8km (R); 1.3km (I) 31-155mm: 13km (D); 3.4km (R); 1.7km (I) 38-190mm: :16.4km (D); 4.2km (R); 2.1km (I) 22-230mm: 18km (D); 4.8km (R); 2.5km (I) 20-300mm: 20km (D); 6.7km (R); 3.3km (I)
Effective Distance (Human: 1.8x0.5m) D: Detection R: Recognition I: Identification	21-105mm: 3.4km (D); 1.7km (R); 0.9km (I) 30-120mm: 4km (D); 2km (R); 1km (I) 31-155mm: 4.8km (D); 2.5km (R); 1.3km (I) 38-190mm: 5.8km (D); 3km (R); 1.6km (I) 22-230mm: 6.8km (D); 3.8km (R); 1.8km (I) 20-300mm: 8km (D); 5km (R); 2.5km (I)
IVS Range	21-105mm: 3km for Vehicle; 1.1km for Human 30-120mm: 3.7km for Vehicle; 1.3km for Human 31-155mm: 4.6km for Vehicle; 1.6km for Human 38-190mm: 5.8km for Vehicle; 2.1km for Human 22-230mm: 7km for Vehicle; 2.5km for Human 20-300mm: 9km for Vehicle; 3.3km for Human

## Visible Camera

Sensor	180/240/330mm: 1/2.8" Star Level CMOS 500/860/1000/2000mm: 1/2.8" Star Level CMOS
Resolution	1920(H)x1080(V)
Frame Rate	32Kbps~16Mbps, 60Hz
Min. Illumination	0.0005Lux (Color), 0.0001Lux (B/W)
SD Card	Support
Defog	Support SDE digital image processing
BLC/WDR/HLC	Yes
AGC	Support
Digital Zoom	16X

## Visible Lens

Focal Lens	4.7~141mm 30X 6.5~240mm 36X 8~320mm 40X 8~500mm 62X 11~860mm 83X 12~1000mm 83X 24~2000mm 83X
Image Stabilization	Support
Focus Control	Manual/Auto

## PTZ

Patrol	16*Patrol Route, 256 Preset for each route
Rotation	Pan: 0~360°, Tilt: -45~+45°
Speed	Pan: 0.01~30°/S, Tilt: 0.01~15°/S
Preset	3000

## Interface

Ethernet	RS-485, RS-232, RJ45
Protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, ONVIF
Video Output	PAL/NTSC
Power	AC12V /DC24V
Compression	H.265 / H.264 / MJPEG

## Environmental

Operate Temp	-25°C~+55°C (-40°C optional)
Storage Temp	-35°C~+75°C
Humidity	<90%
Ingress Protect	IP66
Housing	PTA t coating, Seawater corrosion resistance
Anti-fog/salty	PH 6.5~7.2
Power	150W (Peak)

## Video

Thermal Resolution	1920×1080; 1280×1024; 1280×960; 1024×768; 1280×720; 704×576; 640×512; 640×480; 400×300; 384×288; 352×288; 352×240
Visible Resolution	2592×1520; 2560×1440; 1920×1080; 1280×1024; 1280×960; 1024×768; 1280×720; 704×576; 640×512; 640×480; 400×300; 384×288; 352×288; 352×240
Record Rate	32Kbps~16Mbps
Audio encoding	G.711A/ G.711U/G726
OSD settings	Support OSD display settings for channel name, time, gimbal orientation, field of view, focal length, and preset bit name settings

## Smart

Fire Detection	threshold 255 levels, targets 1-16 can be set, hot spot tracking
AI Analysis	Support intrusion detection, boundary crossing detection, entering/leaving area detection, motion detection, wandering detection, people gathering, fast moving, target tracking, items left behind, items taken; people/vehicle target detection, face detection; and support 16 area settings; support intrusion detection people, vehicle filtering function; support target temperature filtering
Auto-tracking	Single/multi scene tracking; panoramic tracking; alarm linkage tracking
AR Fusion	512 AR intelligent information fusion
Distance Measure	Support passive distance measurement

## Order Information

TVC4511-1930WZ	Thermal: 21~105mm, 384x288 Visible: 2mp, 5.5~180mm
TVC6511-1930WZ	Thermal: 21-105mm, 640x512 Visible: 2mp, 5.5~180mm
TVC6512-2121WZ	Thermal: 30-120mm, 640x512 Visible: 2mp, 6.5~240mm
TVC6516-2132WZ	Thermal: 31-155mm, 640x512 Visible: 2mp, 7~330mm
TVC6519-2150WZ	Thermal: 38-190mm, 640x512 Visible: 2mp, 8~500mm
TVC61023-2186WZ	Thermal: 22~230mm, 640x512 Visible: 2mp, 11~860mm
TVC61530-21100WZ	Thermal: 15-300mm, 640x512 Visible: 2mp, 12~1000mm
TVC61530-22200WZ	Thermal: 15-300mm, 640x512 Visible: 2mp, 24~2000mm