

# TC800PTZ

## Heavy-Duty Dual-Spectrum Pan/Tilt

TC800PTZ infrared thermal imaging camera is composed of large-caliber continuous zoom infrared thermal imaging camera, full HD color B&W dual-mode low-illumination visible light camera, 360° omni-directional high-precision pan&tilt and fully sealed anti-corrosion shield, laser lighting or laser ranging, Beidou/GPS and electronic multi-disk module can be selected as required; It is a camera specially designed and developed for the field of remote day and night monitoring. It can detect and alarm fire sources within 6KM to ensure the safety of life and property. It is suitable for remote monitoring in scenes such as border and coastal defense bases.

### Features

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The thermal image detector is based on the new generation MEMS technology, NETD $\leq$ 50 mk, the picture quality is more delicate, and it is less affected by fog, rain and snow weather

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Support hot spot detection and alarm, based on front-end raw data algorithm

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Can expand laser ranging or laser lighting, Beidou/GPS, electronic compass and other sensors

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Adopt high-definition network camera and large zoom lens, with fog penetration function and various user-defined automatic configuration modes to meet various scene detection requirements

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Unique AS + DOE advanced optical continuous zoom design and 3CAM high-precision optical-mechanical design make zoom smooth and stable, which is conducive to large-scale search and long-distance identification;

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SDE image detail enhancement technology, the image is smooth and noise-free, a variety of pseudo-color and hot black, hot white polarity image mode switching, strong adaptability, easy to find low contrast hidden targets

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### Applications

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Border security, shore security, city high point

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Port wharf, offshore base

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Forest fire prevention, oil field, oil depot security, iron tower

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## Technical Specifications

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| Item                                 | TC800PTZ  |
| Detector Data                        |   |
| Detector type                        | VOx Uncooled FPA  |
| IR resolution                        | 640×512   |
| Pixel pitch                          | 17μm  |
| Spectral range                       | 8 ~ 14μm  |
| NETD/Sensitivity                     | ≤50mK   |
| Infrared lens                        |   |
| Lens type                            | Continuous zoom   |
| Focal distance                       | 31mm~155mm  |
| FOV                                  | Wide FPV: 19.9°×16°   |
|                                      | Narrow FOV: 4.0°×3.2°   |
| Focusing                             | Electric zoom manual/automatic focusing, adaptive active focusing algorithm, supporting multiple trigger modes, accurate and high speed   |
|                                      | High infrared transmittance, no virtual focus in zoom process, small axis   |
| Detect                               | 4.8KM/13KM/6KM(fire source target2X2m)  |
| Identify people/vehicles             | 1.3KM/3.4KM   |
| Infrared imaging performance         |   |
| Image enhancement                    | Second generation SDE digital image enhancement algorithm, improving image details, NUC correction: automatic/manual correction, background correction                                      |
| Image parameters                     | AGC automatic gain control, brightness, contrast  |
| Frequency                            | 50Hz  |
| Electronic Zoom                      | 2X, 4X, supports global synchronous display   |
| Polarity/LUT mode                    | black hot/white hot 16 kinds of pseudo-color images   |
| Contrast/Brightness                  | Automatic/Manual  |
| Thermal imaging spot detection alarm |   |
| Alarm threshold                      | Level 255 can be set  |
| Target Size                          | The range can be set to automatically identify targets of different sizes   |
| Number of Alarm Targets              | 1-16 settable to automatically select the most prominent target display   |
| Alarm mode                           | Video overlay alarm box + switch value (or data return) multiple alarm modes, the alarm is intuitive and easy to read   |
| Front-end algorithm                  | Optimized front-end fast processing algorithm, based on the analysis of each frame of the original heat map data, the alarm response is 0.1s, and there is no delay and no information loss |
| Remote parameter adjustment          | All alarm parameters and indications can be remotely set through the video OSD menu, which has strong universality  |
| Special platform                     | Special warning platform software can be selected to realize various requirements and functions   |
| CCD Video Camera                     |   |
| Resolution                           | 1920×1080 200W pixels   |

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|-----------------------------|---|
| CCD type                    | Ultra low illumination starlight CMOS   |
| Lens Data                   | 11mm~860mm, HD electric zoom, (multiple focal lengths available)  |
|                             | With optical infrared correction design, the focus is consistent day and night  |
| through-fog                 | Support electronic fog and optical fog  |
| minimum illumination        | Color: 0.0005 Lux; B&W: 0.0001Lux, 0Lux (IRON)  |
| Coding                      | H.265/H.264/MPEG4/MIPEG video format with multi-stream support  |
| Video bit rate              | 32Kbps ~ 16Mbps, 60Hz 30 frames/second  |
| Performance                 | Support SD card local storage, support movement detection, occlusion alarm, cross-border detection, area intrusion detection  |
|                             | Support heat wave suppression, electronic anti-shake, white balance, electronic shutter, strong light suppression, 3D digital noise reduction, wide dynamic, anti-infrared overexposure, ABF automatic back focus adjustment function |
| Pan & Tilt                  |   |
| Angle back function         | PELCO-D support   |
| Pan angle                   | 0°~ 360° accuracy: ±0.1°  |
| Tilt angle                  | -45° ~ +45°   |
| Pan speed                   | 0.01°~ 30° /s supports lens focal length adaptation   |
| Tilt speed                  | 0.01°~ 15° /s supports lens focal length adaptation   |
| Interface                   |   |
| Format                      | Aviation interface  |
| Network interface           | 1 RJ45 10M/100M Adaptive Ethernet Port  |
| Communication               | RS485   |
| Power System                |   |
| Working voltage             | AC: 24V±10%   |
| Power consumption           | ≤120W(normal)   |
|                             | ≤180W(heated)   |
| Environment Parameters      |   |
| Operating temperature range | -25°C ~ +65°C(-40°C optional) humidity < 90%  |
| Storage temperature         | -45°C ~ +70°C   |
| Encapsulation               | IP66 (IP67 optional)  |
| Lightning surge protection  | Power supply 4000V, communication video signal 2000V  |
| Earthquake resistance       | 0.2g (in accordance with GB/T15211-2013 5.4 Hardness Class 2)   |
| Impact resistance           | 15g (in accordance with GB/T15211-2013 5.3 Hardness Class 3)  |
| Anti-salt fog               | When the PH value is 6.5 ~ 7.2, the surface does not change after continuous spraying for 48 hours  |
| Physical data               |   |
| Size                        | 590mm(L)×485mm(W)×600mm(H)  |
| Weight                      | ≤50kg   |
| Packing                     |   |
| Standard                    | Thermal imaging camera, user manual, warranty card, packing box   |
| Option                      | Laser ranging or laser lighting, GPS/Beidou, electronic compass, special software   |

