

# Colour CCD & Thermal Imaging Camera

## PL-4700TI

### PL4000 Series Integrated Thermal PTZ Camera

PL4700TI unit is integrated with a thermal infrared imager, high-zoom colour CCD camera and high-performance pan/tilt. It uses the latest 50mm un-cooled FLIR thermal imager to provide a range of enhanced viewing options such as spectral heat variance and hot and cold spot highlights to a distance of over 780 metres. The FLIR thermal imager has built-in sun protection that allows the camera to self-heal should it be pointed directly at the sun. It uses unique technology in drive, processing and display to produce a high quality, stable image.

#### Main Features:

##### Unique Features

- The head is made from aluminum alloy with a thickness of 5mm-15mm - solid and airtight
- Flat designed optical lens (5mm tempered glass) for maximum prevention of image distortion and protection of the built-in integrated camera.
- 360° continuous pan rotation, 125° tilt rotation

##### Integrated structure

- Built-in high resolution 36x integrated colour CCD camera
- Built-in high performance FLIR thermal infrared imager
- Built-in wiper
- Built-in heater
- Built-in defroster

##### Pan/Tilt Features

- Stepper motor with gearbox: for steady rotation, accurate positioning and fast response
- Manual control speed for pan: 0.1°-90°/s
- Manual control speed for tilt: 0.1°-40°/s
- Preset target speed : 90°/s for pan; 40°/s for tilt
- Variable Pan auto scan speed : 1°-40°/s can be set



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### Camera Features

- Built-in high-resolution and high-zoom integrated camera
- Backlight compensation function
- Color image and Black&White image can be set
- WDR
- Video Stabilizer function
- Privacy Zone Masking Function, up to 24 privacy zones.
- High-speed preset video freeze function

### Built-in Decoder Features

- Communication by **plettac's** proprietary FWS 2-wire protocol
- Built-in unique interface for communication with **plettac** range of DVR systems
- Can make soft address and hard address setting
- English OSD menu to set the camera and pan tilt function
- Environment checking function, check the inside temperature real time; Will automatically open the fans once the inside temperature exceeds the setting limit value.
- Powering on self-restoring function: users can assign the camera movement after powering on.
- Proportional pan function: Pan/tilt speed reduces inversely to the depth of zoom.
- The Pan/tilt orientation and camera zoom displays over image
- With pan auto scan function, the pitch angle can be set
- Virtual home position can be set
- 2 pattern function
- 4 presets tour function, dwell time can be set
- 255 preset positions with precision error less than  $\pm 0.1^{\circ}$
- 5 channels fixed time auto activate function, to run the preset movements
- 3 modes to control the wiper function
- Camera orientation display function (N,NE,E,SE,S,SW,W,NW total 8 orientations)
- 2 alarms input, 1 AUX output

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### OSD Menu Features :

- Built-in English OSD menu.
- With OSD passport protect function
- Can edit title of the user name, camera position and preset position
- Can set, run, clear presets, preset tours, privacy zone by menu
- Inside temperature and pan tilt orientation information display

### Protect Features :

- Embedded surge and lightning protector
- Meeting IP66 standards, CE,ROHS, FCC standards

### Technical Parameters

#### Thermal Imager detector features

- Lens: 50mm
- Type: uncooled Focal Plane Array(FPA). v
- Detector material: Vanadium Oxide microbolometer
- Picture resolution: 320x240
- Detection range: 780 m for human detection  
2.2 km for object detection
- Spectral response: 7.5 to 13.5  $\mu\text{m}$
- thermal sensitivity: 85mk at F1.6
- Features: White hot, black hot and false color

#### Camera Parameter

- Sensor: 1/4" Exview HAD CCD
- S/N Ratio: >50 dB
- Effective Pixel: 752Hx582V
- Shutter Speed: 1/2~1/10,000s
- Minimum illumination: 0.01Lux
- Sync system: Inner/Outer Sync
- Signal Output: 1.0Vp-p/75 $\Omega$
- Iris Control: Auto/Manual first
- White balance: Manual/Auto
- Focus Control: Manual/Auto
- Scanning system: 15.625KHz(H) 50Hz(V)
- Zoom: 36X f=3.4~122.4mm
- Horizontal pixel: 540TVL

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### Mechanical structure

- Al-alloy housing
- Weight: 18KGs
- High strength optical window uses toughened coated glass, of 5mm thickness.

### Electrical features

- Voltage Input: 18VAV--24VAC/18VDC—24VDC
- Working temperature: -40°C ~ +55°C
- Power consumption: 60W

### Applications :

- Public Border Surveillance
- Air/ sea Search and Rescue
- Key Zone Security
- Industry Surveillance, Temperature testing
- Electrical Problems Diagnosis
- Medical Care and Hygiene
- Remote Sensing
- Forest Fire-protection

### Dimensional Drawing (unit: MM)

