Integrated Intelligent P/T/Z Thermal Image System

Main Features

- It adopts thermal imaging technology and has a clear image, not restricted by light.
- low light color to black camera, can realize continuous monitoring day and night
- integrated pan-tilt, realize all directions, no blind spot monitoring and high accurate orientation
- high intelligent, easy to operate and maintain
- uneasy to be discovered
- smart shell with professional design, light, firm, thermo stabilization, anti-corrosion, waterproof and acid rain proof
- low power consumption, little heat, stable performance

Technical Indicators

1. Configuration and relevant indicators

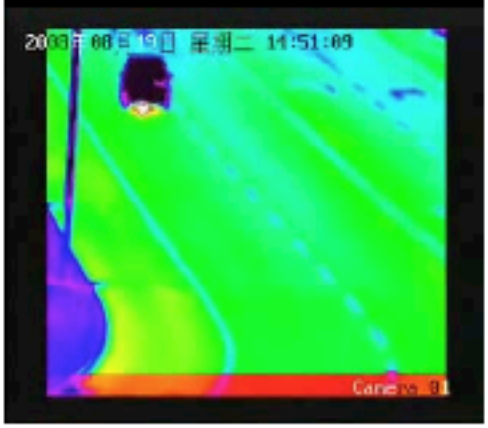
Configuration	camera	Integrated camera
	Thermal imager	Uncooled microbolometer focal plane arrays
	Power supply	AC24V±10%　I_{in}≥2.5A
	interface	RS485、video output、AC 24V power supply
Technical indicators	capability	Night vision distance＞500m、daytime vision distance＞800m
	Power consumption	≤30W

	weight	6.5Kg
	dimensions	372mm×343mm×343mm
	MTBF	≥10000 hours
Environment indicators	Operating temperature	-25℃~+55℃
	Storage temperature	-40℃~+65℃
	Anti-vibration	150m/s 2　11ms
	Salt-fog proof	continuously spray fog for 48 hours under PH6.5-7.2

2. Key Components Indicators:

Camera Indicators	Scanning method	Scanning line-by-line
	zoom	432 times zoom（36 times optical,12 times digital）
	Image inductor	1 / 4" IT Exview HAD CCD
	Valid pixel	752（H）X582（V） 440,000
	Focus	automatic, one push, manual, unlimited far
	Focal length	f＝3.5~91.0.mm
	Signal-to- noise	≥50db
	Video output	VBS:1.0Vp-p（simultaneous negative）,Y/C output
	Lowest illumination	0.01Lx
	Electronic shutter	1/3~1/10,000s
	Simultaneous system	Simultaneous inside or outside
	White balance	automatic，broad dynamic，inside，outside，single key，manual
	Back light compensation	ON / OFF
Basic function of pan-tilt head	Tilt speed	1.5~40°/s
	Pan speed	1.2~60°/s
	Pre-setting points	128 at most
	Scan speed	0.5~30°/s
	Cruising function	6 cruising paths
	Track self-inspection	40s
Thermal imager	Detector type	Focal Plane Array(FPA), uncooled microbolometer 320 X 240 pixels
	Spectral range	8~14μm
	Thermal sensitivity	50mK @F1.0, 300K
	Detection distance	800meters (to human)
	Minimum Object Distance	10m
	Field of view	10°(H)×7°(V) with 50mm lens
	Thermal control	Automatic / manual menu control

Effect display



Function Introduction

1. **Thermal image system**
   a. It adopts passive thermal imaging technology, imaging clear, excellent hiding feature, not restricted by light source.
   b. It can achieve switch between thermal imager and color CCTV camera. In daytime, CCTV camera works to output image while thermal imager doesn't work; screen will switch to thermal image when illumination lower than customized.
   c. Image switch control: System default is on "OFF", and finish switching between CCTV and thermal image according to temperature outside. If users need to switch to thermal image, it can be set "ON" directly via menu, and the same with switching back to CCTV.
2. **Low illumination color to black CCTV camera**
   a. The function of camera can be set via menu.
   b. Automatic switch between color and black/white: when the light intensity is higher than set, the camera is in a state of "color"; Also, when the light intensity is lower than set, the camera will automatically change into a state of "black/white".

c. Zoom rate adjust: you can move the lens “NEAR” or “FAR” to adjust image.
d. Focal length automatic adjusts: camera uses image identity technology to achieve automatic focus.
e. Back light compensation: when the background is dark or unclear, you can open the back light compensation.
f. White balance: Users can choose the best imaging mode when image color distortion (there are six mode to choose) 1, indoor mode 2, outdoor mode 3,one push mode 4, white balance automatic following mode ATW 5, manual mode 6, automatic mode
g. Low illumination set: Usually camera is in a state of automatic working; when environment brightness is lower than 1Lux, it will automatically change to zero level, which is also set manually.
h. You can also use menu to set other functions of the camera

3. Integrated full range pan-tilt

a. Pan rotate 360º, tilt rotate -85º~90º
b. Pan rotate can realize 1.2~60° /s continuous shift adjust, tilt rotate can realize 1.5~40° /s continuous shift adjust
c. Low speed steady rotate, little noise, clear and steady image
d. Reach full range no spot monitoring, exact orientation be ±0. 1°.

4. High intelligence level

a. Can save at most 128 pre-setting points
b. Pan scanning between two points. You can choose the scanning speed and direction. Thermal camera could scan about 180°between two points via menu.
c. Six tracking paths can be programmed: Each path has 16 pre-setting points. You can separately set the speed and staying time between two points.
d. Self-inspection function: The system can remember the PTZ paths in 40 seconds and imitate; it can finish the action according to your operation; and data saves when power off.
e. Character adding function: Screen can show camera’s address and number of pre-setting.
f. Short/long focal length automatic shift function: according to camera’s focal length, system could automatically adjust its pan and tilt rotating speed