

RTPT6436LPZ-Z

Thermal & Optical Bi-spectrum Stable PTZ Camera



- VOx uncooled focal plane detector with 640×512 resolution
- NETD $\leq 40\text{mK}$
- 26 to 105mm motorized thermal lens optical, 37x optical zoom module
- Support human/vehicle detection
- Support smoke & fire detection and fire point detection
- Smart events: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F)
- Power off self-locking, strong wind resistance
- Anti-frozen, NDA Compliance IP66

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Technical Specification

Thermal Module

Image Sensor	Uncooled VOx Focal Plane Arrays
Resolution	Sensor is 640x512. Image can be scaled up to 1280x1024
Pixel Pitch	12μm
NETD	≤ 40mK
Spectral Range	8 to 14 μm
Image Setting	Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes

Thermal Lens

Focus Control	Motorized Focus
Focal Length	26 to 105mm
Aperture	F1.6
Angle of View	H: 16.8°–4.2° V: 13.4°–3.4°
Detection Distance (Human: 1.8x0.5m)	1,082 to 4,369m (3,549.9 to 14,334ft)
Detection Distance (Vehicle: 4x1.5m)	3,322 to 13,417m (10,899 to 44,019ft)
Recognition Distance (Human: 1.8x0.5m)	270 to 1,092m (885.8 to 3,582.7ft)
Recognition Distance (Vehicle: 4x1.5m)	831 to 3,354m (2,726.4 to 11,003.9ft)
Identification Distance (Human: 1.8x0.5m)	135 to 546m (442.9 to 1,791.3ft)
Identification Distance (Vehicle: 4x1.5m)	415 to 1,677m (1361.5 to 5502ft)

* The table is only for reference and the performance may vary according to different environment.

* The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels

Detection Range Table

VCA Detection Distance (Human: 1.8 × 0.5m)	Up to 705m (2,313.0ft)
VCA Detection Distance (Front/Rear of Vehicle: 4 × 1.5m)	Up to 1,200m (3,937.0ft)
Temperature Measurement (Object: 1 × 1m)	433 to 1,750m (1,420.6 to 5,741.5ft)
Temperature Measurement (Object: 0.2 × 0.2m)	87 to 350m (285.4 to 1,148.3ft)
Fire Detection (Object: 1 × 1m)	1,083 to 4,375m (3,553.1 to 14,353.7ft)
Fire Detection (Object: 0.2 × 0.2m)	217 to 875m (712 to 2,870.7ft)

Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

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Optical Module

Image Sensor	1/1.8" CMOS
Max. Resolution	2592 (H)×1520 (V), 4MP
Shutter Speed	1/5 to 1/20,000s
Min. Illumination	Color: 0.001 Lux @ (F1.5, AGC ON) B/W: 0.0001 Lux (F1.5, AGC ON); 0 Lux with light
WDR	True WDR
Focal Length	6.8 to 251 mm, 37x optical zoom
Aperture	F1.5 to F4.8
Angle of View	H: 60.7° to 2.33° V: 36.8° to 1.38°
Digital Zoom	16x
Focus Control	Auto/Manual/Semi-automatic
Mirror	Support
Defog	Support
Privacy Masking	Support

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: -90° to +90°
Pan/Tilt Speed	Pan speed: 0.1° to 60°/s Preset speed: 300°/s
Wiper	Support
Preset Accuracy	± 0.1°
Presets	400
Scan	8 scans
Patrol	12 patrols, up to 32 presets per patrol
Track	6 tracks
3D Positioning	Support
Speed Setup	Auto/Manual (0-8)
Power Off Memory	Support
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run

Illuminator

Illuminator Type	Laser
Illumination Distance	Up to 800m (2,624.7ft)

Video & Audio

Main Stream	Thermal: 1280×1024, 1280×720, 640×512 @ 25/30fps Optical: 2592×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @ 25/30fps
Sub Stream	Thermal: D1, CIF @ 25/30fps Optical: D1, VGA @ 25/30fps
Bit Rate Control	CBR/VBR
Bit Rate	Thermal: Main stream: 100Kbps to 8Mbps Sub stream: 100Kbps to 6Mbps Optical: Main stream: 100Kbps to 16Mbps Sub stream: 100Kbps to 6Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Audio Compression	G711: 64kbps, RAW_PCM: 128kbps

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Smart Function

Smart Alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm
Smart Detection	Support human/vehicle detection, fire point detection and smoke & fire detection (ship detection optional)
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 functions support accurate detection of people/vehicles), People counting

Temperature Detection

Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line)
Temperature Alarm	Over temperature alarm, Temperature difference alarm
Accuracy	±2°C / ±2%
Response Time	≤ 30ms
Temperature Range	-20°C to 150°C (-4°F to 302°F)

Network

Protocols	IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x
Interoperability	ONVIF, SDK, CGI
Max. User Access	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian

Interface

Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	2ch Audio In, 2ch Audio Out
Alarm Interface	9ch Alarm In, 4ch Alarm Out
RS-485	Support
BNC Output	Support
Reset Button	Support (Built-in)
SD Card Slot	Built-in, up to 256GB

General

Power Supply	DC36V
Power Consumption	Max 150W
Working Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	Less than 90% RH
Ingress Protection	IP66
Certifications	CE; FCC; NDAA Sec. 889
Casing	Metal
Dimensions	594 x 350 x 337mm (23.39 x 13.78 x 13.27")
Net Weight	≤ 26.6Kg (58.6lb)

Ordering Information

RTPT6436LPZ-Z4-ZSD37	Thermal Focal Length: 26 to 105mm Optical Focal Length: 6.8 to 251 mm, 37x optical zoom
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Dimensions (mm)

