The Inspector T20 camera is a bispectral thermography PTZ system. Integrating a 37x zoom QHD visual module, a VGA thermography module and a nimble positioning system, T20 gives operators the ability to monitor large areas in any light condition and adverse weather. Built-in machine learning algorithms of the camera accurately detect and classify human and vehicle threats moving, minimizing false alarms and daily operations costs. The exceptional detection and accurate temperature measurement capabilities of Inspector T20 help integrators provide solutions for critical infrastructure sites like energy facilities, chemical plants.

Features

Human & Vehicle Classification

With a variety of in-house machine learning algorithms supported, the Inspector T20 notifies you of people, vehicles or anomalies to help you identify potential threats.

Large Area Coverage

6.5-240mm 37x visible zoom lens with Optical Defog, Inspector T20 perfectly balances the field of view with maximizing the detection distance.

Easy Maintenance and Operator Comfort

Single IP address for visible, thermal offers easy-to-use experience for every operator.

See Clearly in All Light Conditions

1/1.8" 4MP Starvis sensor, along with high-end VGA (640*512) Vox uncooled FPA detector and advanced IR LED Array, T20 presents every detail even in full darkness and adverse weather.

Temperature Measurement

With $\pm 3℃$ thermography capability, Inspector T20 can detect a potential fire hazard, such as sudden temperature rise or abnormal temperature reaching a given threshold. By this early warning, it helps prevent fire in advance and allows timely response before the hazard develops and spreads.

Technical Specs

Visible Camera

Image Sensor	1/1.8" STARVIS progressive scan CMOS
Resolution	2688 x 1520, 4MP
Lens	6.5-240mm, 37x motorized zoom, F1.5-4.8 Field of view: 61.8°x 37.2°(H x V)-1.86°x 1.05°(H x V) Near focus distance: 1-5m Zoom speed: <4s(W-T) Focus modes: Semi-auto/Auto/Manual/One-push
Min. illumination	Color: 0.0005Lux, B/W: 0.0001Lux, AGC&AI-NR ON, F2.8
Electronic Shutter Speed	1/3-1/30000s
Noise Reduction	2D/3D/AI-NR
Image Stabilization	EIS
Day/Night	Auto(ICR)/Manual
White Balance	Auto/Manual/ATW/Indoor/Outdoor/Sodium Lamp/Streetlight/Natural
WDR	120dB
Optical Defog	Auto/Manual
Anti-heatwave	Auto/Manual
Digital Zoom	16x

DORI Ratings*	Detection	Observation	Recognition	Identification
Human (1.7 x 0.6m)	3310m	1314m	662m	331m

*The DORI standard (based on the IEC EN62676-4:2015 international standard) defines different levels of detail for detection (25PPM), observation (62PPM), recognition (125PPM), and Identification (250PPM). This table is for reference only and performance may vary depending on the environment.

Thermal Camera

Imager	Un-cooled FPA Vanadium Oxide microbolometer Pixel pitch: 12µm Spectral range: 8-14µm Sensitivity (NETD): <50mK
Resolution	640 x 512, VGA

Lens	RT6055	RT6035	RT6025
	55mm, F/1.0	35mm, F/1.0	25mm: F/1.0
	Field of view (H x V):	Field of view (H x V):	Field of view (H x V):
	8°x 6.4°	12.5°x 10°	17°x 14°

Color Modes	White hot, Black hot, Fusion, Rainbow, etc. 20 user-selectable
Image Stabilization	EIS(Electronic)
Digital Zoom	8x

DRI Ratings*

RT6055	Detection	Recognition	Identification
Human (1.7 x 0.6m)	2292m	573m	286m
Vehicle (1.4 x 4.0m)	7028m	1757m	878m

RT6035	Detection	Recognition	Identification
Human (1.7 x 0.6m)	1458m	365	182m
Vehicle (1.4 x 4.0m)	4472m	1118m	559m
RT6025	Detection	Recognition	Identification
Human (1.7 x 0.6m)	1042m	260m	130m
Vehicle (1.4 x 4.0m)	3194m	799m	399m

*The DRI distances are calculated according to Johnson criteria: detection(1.5 or more pixels), recognition(6 or more pixels), identification(12 or more pixels). This table is for reference only and performance may vary depending on the environment.

IR

IR Distance	Up to 60m

Pan/Tilt

Pan	Range: 360° continuous rotation Speed: 0.1°- 30°/s
Tilt	Range: -90° to +90° Speed: 0.1°-15°/s
Positioning Accuracy	±0.1°
Preset	255
Tour	8, Up to 32 presets per tour
Scan	5
Pattern	5
Park	Preset/Tour/Scan/Pattern
Scheduled Task	Preset/Tour/Scan/Pattern
Power-off Memory	Support
Snap Positioning	Support
Proportional P/T to Zoom	Support
Heater/Fan	Optional
Wiper	Integrated, Manual/Scheduled

Video and Audio

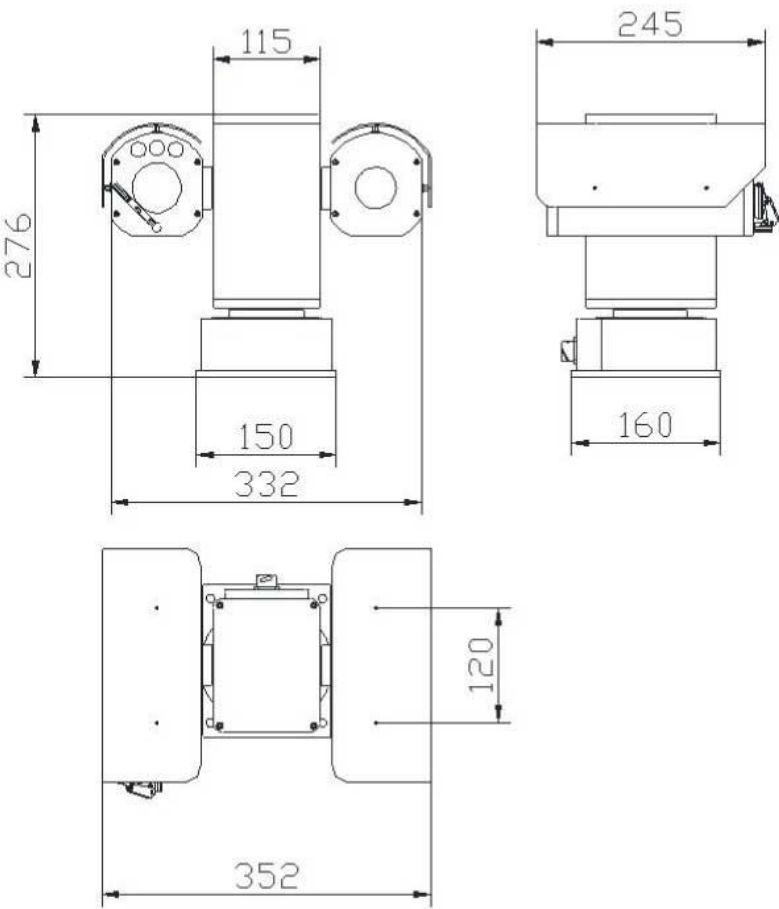| Video Compression	H.265/H.264/H.264H/ H.264B/MJPEG
Main Stream	Visible: 25/30fps (2688 x 1520, 1920 x 1080, 1280 x 720), 16fps@MJPEG Thermal: 25/30fps (1280 x 1024, 704 x 576)
Sub Stream	Visible: 25/30fps (1920 x 1080, 1280 x 720, 704 x 576, 352 x 288) Thermal: 25/30fps (704 x 576, 352 x 288)
Image Encoding	JPEG, 1-7fps (2688 x 1520)
OSD	Name, Time, Preset, Temperature, P/T Status, Zoom, Address, GPS, Image overlay, Abnormal info
Audio Compression	AAC (8/16kHz), MP2L2(16kHz)

Network

Network Protocols	IPv4, IPv6, HTTP, HTTPS, TCP, UDP, RTSP, RTCP, RTP, ARP, NTP, FTP, DHCP, PPPoE, DNS, DDNS, UPnP, IGMP, ICMP, SNMP, SMTP, QoS, 802.1x, Bonjour
API	ONVIF(Profile S, Profile G, Profile T), HTTP API, SDK
User	Up to 20 users, 2 level: Administrator, User

Security	User authentication (ID and password), IP/MAC address filtering, HTTPS encryption, IEEE 802.1x network access control
Web Browser	IE, EDGE, Firefox, Chrome
Web Languages	English/Chinese
Storage	MicroSD/SDHC/SDXC card (Up to 1Tb) edge storage, FTP, NAS

Analytics

Perimeter Protection	Line crossing, Fence crossing, Intrusion
Temperature Measurement	Support real-time point temperature measurement function; Support temperature alert; Support real-time analysis of temperature and historical temperature query;
Temperature Range	Low temperature mode: -20℃ - 150℃ (-4°F - 302°F) High temperature mode: 0℃ - 550℃ (32°F - 1022 °F)
Temperature Accuracy	Max（±3℃，±3%）
Cold and Hot Spot Tracking	Support automatic tracking of the hottest and coldest points
Target Distinction	Human/Vehicle Classification
Behavioral Detection	Object left in area, Object removal, Fast moving, Gathering, Loitering, Parking
Events Detection	Motion, Masking, Scene change, Audio detection, SD card error, Network disconnection, IP conflict, Illegal network access
Fire Detection	Support
Smoke Detection	Support
Strong Light Protection	Support
Auto Tracking	Multiple detection tracking modes

Interface

Alarm Input	1-ch
Alarm Output	1-ch
Audio Input	1-ch
Audio Output	1-ch
Ethernet	1-ch RJ45 10M/100M
RJ485	1-ch

General

Casing	IP 67
Power	24V DC, typical 15W, max 24W, DC24V/3.1A Power adapter included Military-grade aviation port TVS 6000V, Surge protection, Voltage transient protection
Operating Conditions	Temperature: -40℃ to +65℃/-40°F-149°F, Humidity: <90%
Dimensions	332*245*276mm (W×H×L)
Weight	7.5kg

Ordering Information

Model No.	Description
VS-PTZ4037KI-RT6055-T20	4MP 37x Mid-range Bispectral VGA Thermography Positioning Camera
VS-PTZ4037KI-RT6035-T20	4MP 37x Mid-range Bispectral VGA Thermography Positioning Camera
VS-PTZ4037KI-RT6025-T20	4MP 37x Mid-range Bispectral VGA Thermography Positioning Camera

Dimensions

VISHEEN

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