

# VT242 SERIES

## HD 2MP/4MP SMART STARLIGHT LASER PTZ INTEGRATED CAMERA SYSTEM

**Infinova**<sup>®</sup>



## FEATURES

- The chip is integrated with TPU module, and supports video structuration function based on deep learning algorithm.
- HD network video output: 2560x1440 @30 fps/1920x1080@60fp
- Built-in 30X HD integrated camera module
- 1/1.8" Large area progressive scanning CMOS sensor
- Ultra-low illumination: 0.0005 lux
- Supports frame integration WDR, with dynamic range up to 120dB
- Built-in laser irradiation, night vision distance up to 500 or 800 meters. The angle of laser is adjusted automatically
- H.265/H.264/M-JPEG/SVC video encoding, quad video streams
- Support vivid smart functions such as video anomaly detection, behaviour-analysis detection, sound detection, statistics detection, intelligent grouping detection
- Supports the simultaneous output of vehicle panorama, vehicle details and license plate.
- Able to detect human face when tilting up or down  $\pm 45^\circ$ , turning right or left  $\pm 45^\circ$ , or leaning right or left  $\pm 45^\circ$
- Able to detect face images with a minimum of 60\*60 pixels.
- Able to detect 30 target objects simultaneously in a single scene
- Up to 8 ROI (Region of Interest) areas.
- Onvif Profile S/G/T and RTSP compliant
- Micro SD card (support a single SD card)
- Support multiple ways to trigger alarms, such as I/O input, smart detection, SD card removal, SD card full of videos, SD card full of images, network disconnection and heartbeat loss; support flexible alarm associated settings: like I/O output, email, image upload via FTP, audio, SD card recording and SD card snapshot.
- Supports preset, auto pan, pattern, auto scan, timed tour, normal tour, home return, etc.
- Bi-directional audio, G.711-A/G.711-U/AAC /G.726 standard optional
- 1 alarm inputs, 1 on-off output
- Support real-time access and parameter configuration via Web
- Standard SDK is provided to be integrated with other digital systems
- The maximum speed can be adjusted automatically according to the lens magnifications.
- High strength aluminium-alloy casting, heat and corrosion resistant
- With built-in heater and window defroster for various weather conditions
- Operational in 144km/h wind conditions, withstanding wind velocity of up to 208 km/h. Intelligent motor self-locking, prevent external force such as strong winds change camera direction
- IP66

# DESCRIPTION

Embedded with auxiliary laser source and 30X HD integrated camera module, the HD laser Integrated IP PTZ camera system features with wide surveillance range, long distance, high resolution, high frame rate, high S/N ratio and extra low light, applicable for urban security surveillance, highway monitoring and other occasions requiring strict surveillance demands. The inbuilt laser source ensures a night vision distance of 500m or 800m. The camera supports H.265/H.264/M-JPEG/SVC encoding and video preview and control of quad video streams. The embedded 30X HD integrated camera module delivers a resolution up to 1920×1080@60fps (2MP camera) and 30fps@2560×1440 (4MP camera).

The camera supports 360° auto-pan and +40°~80° vertical rotation for panoramic surveillance. The front of the camera adopts windscreen, which achieves better transmittance compared with the arc-shaped clear bubble of the high-speed dome, preventing video definition reduction due to refraction.

The camera supports defrosting and defogging and boasts of excellent waterproof features and high and low temperature resistance. It has a rugged structure and full-sealing enclosure, supporting IP66 environmental rating. The PTZ camera is able to provide weather-proof and long-term service in various harsh environments like highway and tunnel-bridge.

# TECHNICAL SPECIFICATIONS

<b>Lens (Visible)</b>	
Image Sensor	1/1.8" progressive Scan CMOS
Optical Zoom	30X
Digital Zoom	12X
Focal Length	f=6~180mm
Iris	F1.6~F4.8
Focus	Auto, Manual
FOV(H/V/D)	H: 59.6°-2.3°
Lens Mount	-
<b>Lens (Thermal)</b>	
Imager Type	-
Lens Type	-
Spectral Band	-
Pixel Size	-
NETD	-
Focal Length	-
FOV	-
<b>Video</b>	
Camera Resolution (Visible Lens)	2MP/4MP
Camera Resolution (Thermal Lens)	-
Max. Coding Capacity (Visible Lens) 2MP	Major stream: H.264/H.265 -60fps@1920x1080 Minor stream: H.264/H.265 -30fps@1920x1080 Third stream: H.264/H.265 -30fps@384x256 Fourth stream: H.264/H.265 -30fps@384x256 Major stream: H.264/H.265 -60fps@1920x1080 Minor stream: H.264/H.265 -30fps@1920x1080 Third stream: MJPEG -30fps@1920x1080 Fourth stream: H.264/H.265 -30fps@384x256
Max. Coding Capacity (Visible Lens) 4MP	Major stream: H.264/H.265 -30fps@2560x1440 Minor stream: H.264/H.265 -30fps@1920x1080 Third stream: H.264/H.265 -30fps@384x256 Fourth stream: H.264/H.265 -30fps@384x256 Major stream: H.264/H.265 -30fps@2560x1440 Minor stream: H.264/H.265 -30fps@1920x1080 Third stream: MJPEG -30fps@1920x1080 Fourth stream: H.264/H.265 -30fps@384x256
Max. Coding Capacity (Thermal Lens)	-
Data Rate	2MP: 128kbps~1024kbps 4MP: 128kbps~16384kbps

Video Compression	H.265 /H.264/M-JPEG/SVC independent encoding
Multi-Streaming	Four stream independent output
Video Rotation	-
<b>Audio</b>	
Audio Compression	G.711-A/ G.711-U/ G.726/ AAC
Sample Rate	8KHz (for G.711-A/G.711-U/G.726), 16KHz, 32KHz, 44.1KHz and 48KHz (for AAC)
Audio Interface	1 input, Linear level; 1 output, Linear level
Two-way Audio	Available
Mic & Speaker	-
<b>Image</b>	
Shutter	Auto/Manual (1/1s ~ 1/32000s)
WDR	Up to 120dB
Exposure	Auto/Manual/Shutter
Sensitivity	Color mode: 0.005lux @F1.6 (AGC ON) B/W mode: 0.0005lux @F1.6 (AGC ON)
White Balance	Auto/Manual/Outdoor
Video Adjustment	Brightness, contrast, saturation, hue, sharpness
Noise Reduction	3D
S/N Ratio	>62dB
Defog	Available
EIS	Available
Mirror	Horizontal/Vertical
Corridor Mode	-
Day/Night Switching	ICR
AGC	Auto/Manual, up to 64X
BLC	Available
HLC	Available
Privacy Mask	Up to 4 definable zones
ROI	Up to 8 definable zones
OSD	Supported
<b>Pan/Tilt Functions</b>	
Preset	1024
Pattern	12
Autopan	12
Normal Tour	16 (each tour associates with 14 actions, optional with Preset 1~32, Pattern 1~4, Auto Pan 1~4)
Home Return	Available
Timing Tour	Available

# TECHNICAL SPECIFICATIONS

Auto scan	Available
Area Zoom	Available
<b>IR Illumination</b>	
Smart-IR (Laser)	Available
Wave Length	860±5nm
Night Vision Distance	500m or 800m
<b>Temperature Measurement</b>	
Screening Function	-
Measurement Distance	-
Measurement Range	-
Accuracy	-
<b>Smart Analytics</b>	
Video Analytics	Video Anomaly Detection - Camera tampering, camera shifting, defocus detection, high brightness detection, low brightness detection, video loss detection, Color cast detection, and motion detection
	Behaviour Analysis Detection - Wire crossing detection, intrusion detection, object abandoned detection, object lost detection, loitering detection, crowd detection, fast moving detection and target fall detection
	Sound Detection - Abnormal sound detection
	Statistics Detection - Counting, density detection, queue length detection and dwelling detection
	Intelligent Grouping Detection - Structurized face detection grouping, behaviour analysis grouping, and people and vehicle coexistence detection grouping
	Multi-object detection - Support face, pedestrian, motor vehicle, and non-motor vehicle detection
	Capture - Support target detail capture
	Optimum Selection - Support optimum selection and duplicate removal for captured images to deliver the best-quality images
	Video Structurization - Support Structurized object attributes:
	- Face attributes: gender, glasses, eyes open, mask, mouth open and facial expression (angry, disgusted, fearful, happy, sad, surprised, or neutral)
- Pedestrians attributes: gender, age (youth, middle-aged, elderly or teenager), top style (long sleeve, short sleeve, robe or trench coat, stripe, logo, plaids, matching or splicing), top Color (white, black, red, yellow, grey, blue, green, dark grey or purple), bottom style (long pants, shorts, skirt, stripes or patterns), bottom Color (white, black, red, yellow, grey, blue, green, dark grey or purple), glasses, hat, backpack, shoulder bag, holding kids, objects in hand, protective clothing, safety helmet, direction (front, back, side)	
- Motor vehicle attributes: Types (car, tricycle, truck, pickup trucks, van, bus), vehicle brands, vehicle body Color (black, blue, brown, green, grey, white, red, yellow, pink, purple, dark grey, silver, orange, green and other), license plate number, license plate Color (yellow, blue, black, white, and green), license plate types (small car plate, large car plate, new energy vehicle license plate, large truck or trailer license plate),	

	direction (front, rear, left, right, left front, right front, left rear and right rear) - Non-motor vehicle attributes: type (bicycle, motorcycle), equipped with umbrella, helmet, overload, direction (front, rear, left, right, left front, right front, left rear and right rear).
<b>Storage</b>	
Storage Slots	Support a single card
Built-in Storage	Up to 256GB
NAS Storage	Available
Local PC Recording	Available
<b>Alarm</b>	
Alarm Ports	1 alarm inputs, 1 on/off output
Alarm Input	I/O input, smart analysis, SD card removal, SD card full with videos, SD card full with images, network disconnection, heartbeat loss
Alarm Association	I/O output, email, FTP picture uploading, audio, SD card recording, SD card snapshot, alarm info push
<b>System Functions</b>	
Operating System	Windows 7 and higher versions
Browser	IE8 and higher versions
Access Protocol	ONVIF Profile S/G/T, CGI 2.7
Multiple Access	Up to 20-ch simultaneous access
Web Server	Available
Remote Upgrade	Available
Password Protection	Available
RS485 Port	-
Analog Video Output	-
Maximum Number of Users	64, with 3 types of users available: administrator, normal user, and operator
Wiper	Available
<b>Network</b>	
Network Interface	1*RJ45 10/100M self-adaptive Ethernet port
Network Protocols	IPv4/IPv6, TCP, UDP, IGMP, ICMP, IGMPv2/3, DHCP, SNMP (V1, V2, V3), FTP, SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, SSL, 802.1x, QoS, PPPoE, DNS, DDNS, ARP, UPnP, IP Filter, TLS, Multicast, SIP
IP Address Filtering	Support blacklist and whitelist filtering
Network Delay	<250ms
<b>Environmental</b>	
Anti-Static	Contact protection 8KV, Air discharge 9KV
Surge Protection	Differential mode 4KV, common mode 4KV
Operating Temperature	-40°F~140°F (-40°C~+60°C)
Storage Temperature	-4°F~140°F (-20°C~+60°C)
Operating Humidity	≤ 95% RH
Environmental Rating	IP66
Impact Resistance	IK10
<b>Mechanical</b>	
Manual Speed	Pan: 0.1°~100°/s; Tilt: 0.1°~ 60°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 60°/s (max.)
Rotation Angle	Pan: 360°; Tilt: +40° ~ -85°
Preset Accuracy	<±0.1°
Electric Motor	Stepping motor
<b>Electrical</b>	
Power Supply	24VDC
Power Consumption	80W (max.)
<b>Physical</b>	
Product Dimension	-

Package Dimension (L x W x H)	21.49"x8.22"x19" (546mm×209mm×482mm)
Unit Weight	44.09 lbs (20kg)
Shipping Weight	50.7 lbs (23kg)

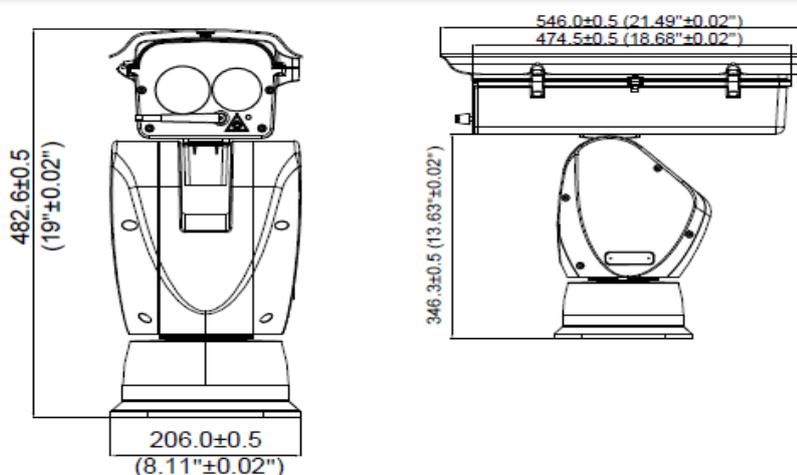
<b>Certifications</b>	
Product Certifications	CE, FCC, IK10, IP66, RoHS

## ORDERING INFORMATION

VT242-C230-A2J	HD Megapixel IP Laser PTZ Camera, WDR, 2MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 500m, 24VDC
VT242-C230-A2K	HD Megapixel IP Laser PTZ Camera, WDR, 2MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 800m, 24VDC
VT242-C430-B2J	HD Megapixel IP Laser PTZ Camera, WDR, 4MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 500m, 24VDC
VT242-C430-B2K	HD Megapixel IP Laser PTZ Camera, WDR, 4MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 800m, 24VDC
VT242-D230-A2J	HD Megapixel IP Laser PTZ Camera, WDR, 2MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 500m, 24VDC, with wiper
VT242-D230-A2K	HD Megapixel IP Laser PTZ Camera, WDR, 2MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 800m, 24VDC, with wiper
VT242-D430-B2J	HD Megapixel IP Laser PTZ Camera, WDR, 4MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 500m, 24VDC, with wiper
VT242-D430-B2K	HD Megapixel IP Laser PTZ Camera, WDR, 4MP, 30X Optical zoom, Day/Night, 1/1.8-inch CMOS, H.265/H.264/MJPEG, With audio alarm, night vision distance up to 800m, 24VDC, with wiper
<b>Accessories</b>	
<b>Mount</b>	
V1663-W2	Wall Mount
V1663-S2	Pole Mount
V1663-C2	Corner Mount
<b>Power Supply</b>	
N3922-24D-3	AC to DC Power Supply, Plug-In, 230VAC, Output 24VDC, 3A

**\*Note:** - "Confirmation of SD Card installation has to be notified with the Camera Purchase Order. Such confirmation if received on Order Readiness will attract additional cost. Please contact Infinova to know more"

## DIMENSIONS

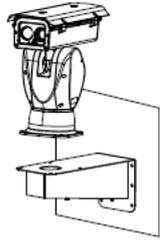


(Unit: inch, in the parentheses is mm)

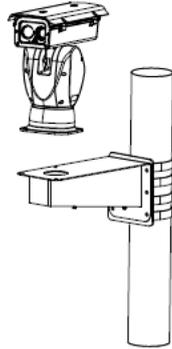
# MOUNTING



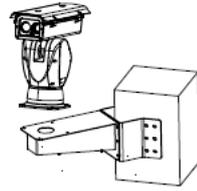
Surface Mount



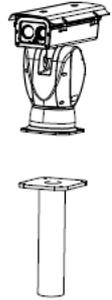
Wall Mount



Pole Side Mount



Corner Mount



Pole Top Mount