

VS231-A4 SERIES

HD 4MP SMART STARLIGHT IR IP PTZ DOME CAMERA

Infinova®



FEATURES

- The chip is integrated with TPU module, and supports video structuration function based on deep learning algorithm.
- HD network video output: 2560x1440@30fps
- Built-in 44X 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
- Inbuilt efficient infrared lamps of 850nm wave length to ensure stable long-term use and reduce maintenance cost. Night vision distance up to 300 meters
- The infrared power is adjusted automatically based on dome drive zooming or manually to optimize the night vision fill-in light effects
- H.265/H.264/M-JPEG/SVC video encoding, quad video streams
- Features rich smart functions such as video anomaly detection, behaviour-analysis detection, sound detection, statistics detection, intelligent grouping detection
- Support multi-target detection, tracking and snapshot; support optimum selection and duplicate removal for captured structured images; small face images and panoramic images are optional to be uploaded to platforms for secondary analysis and retrieval
 - Support structured object attributes: able to detect face, pedestrian, motor vehicle and non-motor vehicle. Supports vehicle-pedestrian mode and vehicle mode like Face attributes, Pedestrian attributes, Motor vehicle attributes, non-motor vehicle attributes
- 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 30*30 pixels at 1080P
- Able to detect 30 target objects simultaneously in a single scene
- Up to 8 ROI (Region of Interest) areas.
- Onvif Profile S/G and RTSP compliant
- Supports preset, autopan, pattern, autoscan, timed tour, normal tour, scene tour, power-on return, etc.
- 2 alarm inputs, 1 on-off output
- Micro SD card
- IP67 protection rate, inbuilt a heater and air circulation system to avoid icing
- Supports water-proof breather valve
- IK10
- UL

DESCRIPTION

Based on deep-learning algorithm, VS231-A4 series HD IR IP dome camera is endowed with vivid smart functions and video structuring functions such as face detection, pedestrian detection, motor vehicle detection and non-motor vehicle detection. It's able to output target attributes and images to the backend platform for big data analysis, which effectively reduces loads and costs of smart analysis and handling that the control platform bears. The camera can also connect to Infinova's smart structured big-data platform seamlessly. Standard http protocol and SDK are provided to connect to the third-party platform.

The camera has a built-in HD integrated camera module, utilizes large size progressive scanning CMOS sensor and has an internal 44X optical zoom lens. It provides high quality video with the resolution up to 2560x1440 @30 fps, adopts H.265/H.264/M-JPEG /SVC compression formats, outputs four video streams and boasts of excellent resolution and color reproduction ability to ensure richer and more accurate details to be acquired and also guarantee the accuracy of intelligent analysis in a more effective way.

The camera adopts large power LED infrared lamps, with infrared wave length of 850nm, covering up to 300m for night view. The IR lamps can turn on or off automatically based on environmental lighting conditions or can be adjusted manually. The IR illumination allows flexible adjustment so as to reduce IR lamp calorific value and extend its service life.

VS231-A4 can be widely used in city surveillance, road monitoring, entrance surveillance for subways, shopping mall, supermarket and large venues, crowded places like train stations, airports and other demanding applications.

TECHNICAL SPECIFICATIONS

Lens (Visible)		Audio	
Image Sensor	1/1.8" progressive scanning CMOS	Audio Compression	G.711-A/ G.711-U/ G.726/ AAC
Optical Zoom	44X	Sample Rate	8KHz (for G.711-A/G.711-U/G.726), 16KHz, 32KHz, 44.1KHz and 48KHz (for AAC)
Digital Zoom	16X	Audio Interface	1 input, Linear level; 1 output, Linear level
Focal Length	f=6~264mm	Two-way Audio	Available
Iris	F1.6~F5.3	Optical Out (Optional)	InBuilt Optical Module with FC Optic port
Focus	Auto/Manual	Image	
FOV(H/V/D)	H: 59.6° ~ 2.3°; V: 35.1° ~ 1.3°; D: 66.7° ~ 2.6°	Shutter	Auto/Manual (1/1s~1/100,000s)
Lens Mount	-	WDR	Up to 120dB
Lens (Thermal)		Exposure	Auto/Manual/Shutter
Imager Type	-	Sensitivity	Color mode: 0.005lux (IR OFF); B/W mode: 0.0005lux (IR OFF); 0 Lux (IR ON)
Lens Type	-	White Balance	Auto/Manual/Outdoor
Spectral Band	-	Video Adjustment	Brightness, contrast, saturation, hue, sharpness
Pixel Size	-	Noise Reduction	3D
NETD	-	S/N Ratio	≥62dB
Focal Length	-	Defog	Available
FOV	-	EIS	Available
Video		Mirror	Horizontal, Vertical
Camera Resolution (Visible Lens)	4MP	Corridor Mode	-
Camera Resolution (Thermal Lens)	-	Day/Night Switching	ICR
Max. Coding Capacity (Visible Lens)	Major stream: H.264/H.265 -30fps@2560x1440	AGC	Auto/Manual, up to 64X
	Minor stream: H.264/H.265 -30fps@1920x1080	BLC	Available
	Third stream: H.264/H.265 -30fps@384x256	HLC	Available
	Fourth stream: H.264/H.265 -30fps@384x256	Privacy Mask	Up to 4 definable zones
Max. Coding Capacity (Thermal Lens)	Major stream: H.264/H.265 -30fps@2560x1440	ROI	Up to 8 definable zones
	Minor stream: H.264/H.265 -30fps@1920x1080	OSD	Supported
	Third stream: MJPEG -30fps@1920x1080	Pan/Tilt Functions	
	Fourth stream: H.264/H.265 -30fps@384x256	Preset	1024
Data Rate	VBR/CBR	Pattern	12
	Major stream: 128kbps~16384kbps	Autopan	12
	Minor stream: 128kbps~8192kbps	Normal Tour	16 groups (each tour can link to 14 actions, optional with Presets 1~32, Patterns 1~4 and Autopans 1~4)
	Third stream: 128kbps~512kbps	Home Return	Available
Video Compression	H.265/H.264/M-JPEG/SVC independent coding	Timing Tour	Available
	Four-stream independent output	Autoscan	Available
Multi-Streaming	Four-stream independent output	Area Zoom	Available
Video Rotation	Video can be rotated by 0°, 90°, 180°, 270°	IR Illumination	
		Smart-IR	Available

TECHNICAL SPECIFICATIONS

Wave Length	850nm
Night Vision Distance	300m
Optical Port (Output)	
Port	1 FC Port
Wavelength	TX/RX: 1310nm / 1550nm
Standard	Inbuild Industrial Grade
	Optical module with FC port
	Supports 100base-FX
	Ethernet Standards
Smart Analytics	
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 and fight 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, PTZ tracking 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).
	PTZ tracking - Support human tracking; Supports capturing human body and human face during the tracking process
Storage	
Storage Slots	Supports single cards
Built-in Storage	up to 512GB
NAS Storage	-
Local PC Recording	Available
Alarm	
Alarm Ports	2 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
System Functions	
Operating System	Win 7 or above versions
Browser	IE8 or above 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	Supports, 1*RS485
Optical Output	Optional
Maximum Number of Users	64, with 3 types of users available: administrator, normal user, and operator
Wiper	-
Network	
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
Environmental	
Anti-Static	Air discharge 8KV, Contact protection 6KV
Surge Protection	Differential mode 4KV, common mode 6KV
Operating Temperature	-40°F ~ 158°F (-40°C ~ 70°C) (outdoor)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C) (PoE+, outdoor)
Operating Humidity	≤ 95% RH
Environmental Rating	IP67
Impact Resistance	IK10
Mechanical	
Manual Speed	Pan: 0.1° ~ 1000°/s; Tilt: 0.1° ~ 300°/s
Preset Speed	Up to 400°/s
Rotation Angle	Pan: 360°; Tilt: -4° ~ 90° (auto-flip)
Preset Accuracy	<±0.1°
Electric Motor	Stepping motor
Electrical	
Power Supply	PoE+ (IEEE802.3at type2 Class4)/ 24VAC/ 24VDC
Power Consumption	<17W (Idle state); <55W (Heater on, IR lamp manually adjusted to maximum); <50W (PoE+)

TECHNICAL SPECIFICATIONS

Physical

Product Dimension (L×W×H) or (H x D)	14.6" × Φ9.04" (370.4mm × Φ229.6mm)
Package Dimension (L x W x H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Unit Weight	12.79 lbs (5.8kg)
Shipping Weight	16.76 lbs (7.6kg)

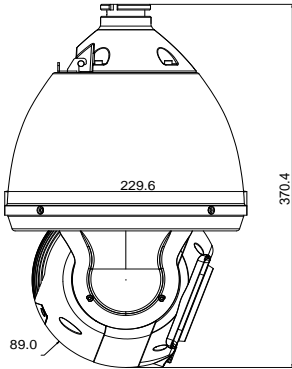
Certifications

Product	CE, FCC, RoHS, IP67, IK10, UL
Certifications	

ORDERING INFORMATION

VS231-A430-B061	HD Megapixel IR IP PTZ Dome Camera, Intelligent face capture, Starlight, WDR, 4MP, 44X, 1/1.8" CMOS, Day/night, H.265/H.264/M-JPEG, With audio alarm, Optical Output (Optional) Outdoor, Bracket mount, PoE/24VDC/24VAC
Accessories	
Mount	
V1761K	Wall Mount, bayonet, 10 inches
V1762K	Corner Mount, bayonet, 10 inches
V1763K	Pole-side Mount, bayonet, 10 inches
Power Supply	
N3922-24D-3	AC to DC Power Supply, Plug-In, 230VAC, Output 24VDC, 3A
N3922-24A-3	AC to AC Power Supply, Plug-In, 230VAC, Output 24VAC, 3A
N3922-75P-2	Smart POE Injector, 100VAC-240VAC input, 75W output

DIMENSIONS



MOUNTING

