

VH221-A5 SERIES

HD 5MP INTELLIGENT LOW LIGHT WDR IR IP MINIDOME CAMERA

Infinova[®]



FEATURES

- 1/2.8" HD progressive scan CMOS
- Sensitivity: 0.0005 lux
- Support multi-frame integrated WDR, with a range up to 120dB
- IR-Cut Removable (ICR) Filter for true Day/Night
- With Smart-IR technology, the power of the IR illuminator can be adjusted according to ambient lighting conditions
- IR illumination distance up to 50m
- Built-in motorized zoom lens, assistant to focus adjustment
- H.265/H.264/M-JPEG/SVC encoding formats, available with three video streams
- High-resolution image signal output: 2560×1920@30fps
- With embedded design and integrated TPU module, support face capture and face attribute extraction and behaviour analysis based on deep learning algorithm
- Support vivid smart functions such as video anomaly detection, behaviour-analysis detection, sound detection, statistics detection, intelligent grouping detection
- Support Structurized target attributes: able to detect face and pedestrian such as Face attributes: gender, glasses, eyes open, mask, mouth open and expression
- Able to detect human face when tilting up or down $\pm 45^\circ$, turning right or left $\pm 45^\circ$, or leaning right left 45°
- Able to detect face images with a minimum of 30*30 pixels at 1080P
- The face capture rate is $\geq 99\%$
- Able to detect 32 face images simultaneously in a single scene
- Support intelligent face exposure, automatic face position detection and dynamic area adjustment for face exposure to obtain clearer face images
- Onvif Profile S/G & T and RTSP compliant
- Support corridor mode
- Bi-directional audio, G.711-A/G.711-U/G.726/AAC
- 2 alarm inputs, 1 on-off output
- IK10 vandal-proof rating
- IP66 environmental rating for outdoor use
- UL

DESCRIPTION

Infinova VH221-A5 series HD 5MP Intelligent Low Light WDR IR IP minidome camera applies 1/2.8-inch CMOS sensor and 2.7~13.5mm HD motorized zoom lens. The built-in IR lights can cover up to 50m and its power can be automatically adjusted according to ambient lighting conditions, greatly reducing power consumption and extending its service life.

With H.265/H.264/M-JPEG/SVC video compression formats, the camera outputs high-quality images with resolution up to 2560×1920@30fps, which can provide marvelous definition, color restoration and accurate details.

The camera is endowed with vivid smart functions and video structuring functions such as face detection, and 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 Structurized big-data platform seamlessly. Standard http protocol and SDK are provided to connect to the third-party platform.

The camera can be widely used in ordinary buildings, supermarkets, hotels, shops, parks, schools, factories, warehouses, underground parking and other occasions with low light condition but requiring high-quality images.

TECHNICAL SPECIFICATIONS

Lens (Visible)		Sample Rate	8KHz (for G.711-A/G.711-U/G.726), 16KHz, 32KHz, 44.1KHz and 48KHz (for AAC)
Image Sensor	1/2.8" progressive scan CMOS	Audio Interface	1 input, Linear level; 1 output, Linear level
Optical Zoom	-	Two-way Audio	Supported
Digital Zoom	-	Mic & Speaker	-
Focal Length	f=2.7~13.5mm	Image	
Iris	F1.6	Shutter	Auto/Manual (1/1s~1/32,000s)
Focus	Available with online assistant focus	WDR	Up to 120dB
FOV(H/V/D)	H:93.4°~31°; V:67.2°~23.2; D:126°~38.6°	Exposure	Auto/Manual/Shutter
Lens Mount	M12	Sensitivity	Color mode: 0.005 lux (IR OFF); B/W mode: 0.0005 lux (IR OFF); 0 lux (IR ON)
Lens (Thermal)		White Balance	Auto/Manual/Outdoor
Imager Type	-	Video Adjustment	Brightness, Contrast, Saturation, Hue, Sharpness adjustable
Lens Type	-	Noise Reduction	3D
Spectral Band	-	S/N Ratio	≥65dB
Pixel Size	-	Defog	Available
NETD	-	EIS	Available
Focal Length	-	Mirror	Horizontal/Vertical
FOV	-	Corridor Mode	Available
Video		Day/Night Switching	ICR
Camera Resolution (Visible Lens)	5MP	AGC	Auto/Manual, up to 64X
Camera Resolution (Thermal Lens)	-	BLC	Available
Max. Coding Capacity (Visible Lens)	Major stream: H.264/H.265-30fps@2560×1920 Minor stream: H.264/H.265-30fps@1280×720 Third stream: H.264/H.265-30fps@384×256	HLC	Available
Max. Coding Capacity (Thermal Lens)	Major stream: H.264/H.265-30fps@2560×1920 Minor stream: H.264/H.265-30fps@1280×720 Third stream: MJPEG-15fps@1920×1080	Privacy Mask	Up to 4 definable zones
Data Rate	VBR/CBR Major stream: 128kbps~16384kbps Minor stream: 128kbps~4096kbps Third stream: 128kbps~512kbps	ROI	Up to 8 definable zones
Video Compression	H.265/H.264/M-JPEG/SVC independent coding	OSD	Supported
Multi-Streaming	Three-stream independent output	Pan/Tilt Functions	
Video Rotation	Video can be rotated by 0°, 90°, 180° or 270°	Preset	-
Audio		Pattern	-
Audio Compression	G.711-A/ G.711-U/ G.726/ AAC	Autopan	-
		Normal Tour	-
		Home Return	-
		Timing Tour	-
		Autoscan	-
		Area Zoom	-
		IR Illumination	
		Smart-IR	Available
		Wave Length	850nm
		Night Vision Distance	50m

TECHNICAL SPECIFICATIONS

Temperature Measurement	
Screening Function	-
Measurement Distance	-
Measurement Range	-
Accuracy	-
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, target stop detection, and fall over detection Sound Detection - Abnormal sound detection and fight detection Statistics Detection - Counting, density detection, queue length detection and dwelling detection Intelligent Grouping Detection- behaviour analysis grouping, face capture grouping. Face capture - Supports face detection, tracking and capturing. Optimum Selection- Supports optimum selection and duplicate removal for captured target images to deliver the best-quality images. Face Exposure - Available Face attributes - gender, glasses, eyes open, mask, mouth open and facial expression (angry, disgusted, fearful, happy, sad, surprised or neutral)
Storage	
Storage Slots	Supports single card
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 events, SD card full of videos, SD card full of images, network disconnection, heartbeat loss
Alarm Association	I/O output, email, image upload via FTP, audio, alarm info push, SD card recording, SD card snapshot
System Functions	
Operating System	Win 7 and higher versions
Browser	IE8 and higher versions
Access Protocol	ONVIF Profile S/G/T, Infinova CGI
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

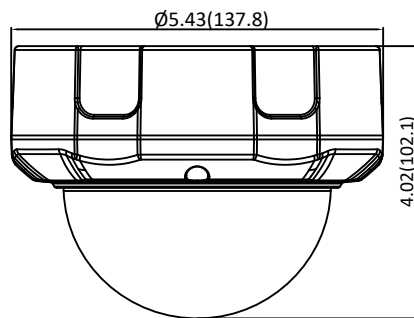
Wiper	-
Network	
Network Interface	1 RJ45 10M/ 100M self-adaptive Ethernet port
Network Protocols	IPv4/IPv6, TCP, UDP, IGMP, ICMP, IGMPv2/3, DHCP, SNMP (V1, V2, V3), FTP, SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, SSL, 802.1x, QoS, PPPoE, DNS, DDNS, ARP, UPnP, IP Filter, TLS, Multicast, SIP
IP Address Filtering	Available
Network Delay	<250ms
Environmental	
Anti-Static	Air discharge: 8KV; contact discharge: 6KV
Surge Protection	Difference mode ±1KV, common mode ±2KV
Operating Temperature	-40°F~131°F (-40°C~+55°C)
Storage Temperature	-4°F~131°F (-20°C~+55°C)
Operating Humidity	Less than ≤ 95% RH
Environmental Rating	IP66
Impact Resistance	IK10
Mechanical	
Manual Speed	-
Preset Speed	-
Rotation Angle	-
Preset Accuracy	-
Electric Motor	-
Electrical	
Power Supply	PoE (IEEE 802.3af)/ 12VDC/ 24VAC
Power Consumption	IR OFF: <5W; IR ON: <13W
Physical	
Product Dimension (L×W×H) or (H x D)	4.02" ×5.43" (102.1mm×137.8mm)
Package Dimension (L x W x H)	8.03" ×6.34" ×8.11" (204mm×161mm×206mm)
Unit Weight	1.98lbs. (0.9Kg)
Shipping Weight	2.54lbs. (1.15Kg)
Certifications	
Product Certifications	CE, FCC, IK10, IP66, RoHS, UL

ORDERING INFORMATION

VH221-A50B-Q022	HD IR IP Minidome Camera, 5MP, 1/2.8" CMOS, Day/night, WDR, Low Light, Structurized face or Pedestrian analysis, H.265/H.264/M-JPEG/SVC, 2.7~13.5mm motorized lens, IR illumination distance up to 50m, With audio alarm, Outdoor, Surface mounting, PoE/12VDC/24VAC
Accessories	
Mount	
V1761HA	Wall-mounting bracket
Power Supply	
N3921-12D-1	AC to DC Power Supply, Plug-In, 230VAC, Output 12VDC, 1.5A
N3922-30P-2	Smart POE Injector, 100VAC-240VAC input, 30W output
N3921-24A-2	AC to AC Power Supply, Plug-In, 230VAC, Output 24VAC, 1A

***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



MOUNTING

