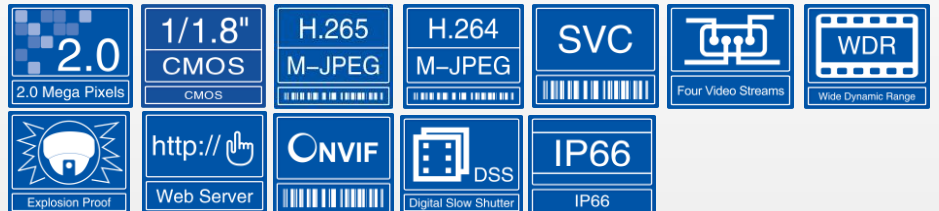


# V1421MN-A2 SERIES

HD 2MP INTEGRATED EXPLOSION-PROOF IP CAMERA

**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: 1920x1080@60fps
- 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
- H.265/H.264/M-JPEG/SVC video encoding, quad video streams
- HD network video output: 1920x1080@30fps
- 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
- Up to 8 ROI (Region of Interest) areas.
- Onvif Profile S/G/T and RTSP compliant
- Bi-directional audio, G.711-A/G.711-U/AAC /G.726 standard optional
- 2 alarm inputs, 1 on-off output
- Applicable for the first and second dangerous places which contain the explosive mixture constituted by T6 group, A, B and C grade, II class combustible gases/vapours and air
- IP66/IP68 rating
- Using fixed bracket to mount or adjustable wall bracket V1665-W1 to mount
- Window glass of front housing uses tempered glass while the main body and base use stainless steel

# DESCRIPTION

Based on deep-learning algorithm, Infinova V1421MN series HD network explosion proof 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 30X optical zoom lens. It provides high quality video with the resolution up to 1920x1080@60fps, 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.

This camera adopts explosion proof shield design, which can protect the webcam and the lens from damaging themselves under the outside explosion environment. The explosion proof shield structure as a whole is in cylindrical shape. The front end is flange cover while its rear end is cable flange cover. Window glasses made of toughened glasses are compressed on the flange cover by junk ring and sealed by specified sealant with O-ring. Rear cover is connected to the flange of cylinder through screws and is sealed by O-ring with specified rubber sealing ring. The base is linked to the cylinder by stainless steel hoop band.

All products shall meet the provisions of standard Ex db. IIC T6 Gb (-40 °C ≤ Ta ≤ +60 °C) /EX tb IIIC T80°C Db (-40°C≤Ta≤+60°C), IP66. They can be applied to the explosion environment (excluding mines) caused by the mixture of combustible gases and air. Boasting of IP66/IP68, the dust proof and water proof environmental rating, it means the dust cannot intrude into the products and there will be no damage to products when using water to clean them.

# TECHNICAL SPECIFICATIONS

<b>Lens (Visible)</b>	
Image Sensor	1/1.8" progressive scan CMOS sensor
Optical Zoom	30X
Digital Zoom	-
Focal Length	f=6~180mm
Iris	Auto/Manual/Manual priority
Focus	Auto/Manual/Manual priority
FOV(H/V/D)	H:59.8°-3.0°; V:44.4°-2.24°; D:70°-3.76°
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
Camera Resolution (Thermal Lens)	-
Max. Coding Capacity (Visible Lens)	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: MJPEGE -30fps@1920x1080 Fourth stream: H.264/H.265 -30fps@384x256
Max. Coding Capacity (Thermal Lens)	-

Data Rate	VBR/CBR Major stream: 128kbps~10240kbps Minor stream: 128kbps~4096kbps Third stream: 128kbps~512kbps Fourth stream: 128kbps~512kbps
Video Compression	H.265/H.264/M-JPEG/SVC independent coding
Multi-Streaming	Four stream independent output
Video Rotation	Video can be rotated by 0°, 90°, 180°, 270°
<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 scalable)
WDR	Up to 120dB
Exposure	Auto/Manual/Shutter
Sensitivity	Color mode: 0.005 lux @ F1.5 (AGC ON) B/W mode: 0.0005 lux @ F1.5 (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	Vertical/ Horizontal
Corridor Mode	-
Day/Night Switching	ICR
AGC	Available, 64 level adjustable
BLC	Available

# TECHNICAL SPECIFICATIONS

HLC	Available
Privacy Mask	Up to 4 definable zones
ROI	Up to 8 definable zones
OSD	Supported
<b>Pan/Tilt Functions</b>	
Preset	-
Pattern	-
Autopan	-
Normal Tour	-
Home Return	-
Timing Tour	-
Autoscan	-
Area Zoom	-
<b>IR Illumination</b>	
Smart-IR	-
Wave Length	-
Night Vision Distance	-
<b>Temperature Measurement</b>	
Screening Function	-
Measurement Distance	-
Measurement Range	-
Accuracy	-
<b>Smart Analytics</b>	
Video Analytics	<p>Video Anomaly Detection - Camera tampering, camera shifting, defocus detection, high brightness detection, low brightness detection, video loss detection, color cast detection, and motion detection</p> <p>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</p> <p>Sound Detection - Abnormal sound detection and fight detection</p> <p>Statistics Detection - Counting, density detection, queue length detection and dwelling detection</p> <p>Intelligent Grouping Detection - Structurized face detection grouping, behaviour analysis grouping, and people and vehicle coexistence detection grouping, PTZ tracking grouping</p> <p>Multi-object detection - Support face, pedestrian, motor vehicle, and non-motor vehicle detection</p> <p>Capture - Support target detail capture</p> <p>Optimum Selection - Support optimum selection and duplicate removal for captured images to deliver the best-quality images</p> <p>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</p>

Video Analytics	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 512GB
NAS Storage	-
Local PC Recording	Available
<b>Alarm</b>	
Alarm Ports	2 alarm inputs, 1 switching value output
Alarm Input	I/O input, motion detection, video tampering, smart analysis, SD card removal, network disconnection, heartbeat loss
Alarm Association	I/O output, email, FTP picture uploading, audio, TF card recording
<b>System Functions</b>	
Operating System	Win 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	IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP, SMTP, NTP, RTP, RTSP, RTCP, SFTP, HTTP, HTTPS, TLS, SSL, QoS, PPPoE, DNS, DDNS, ARP, ICMP, UPnP
IP Address Filtering	Support blacklist and whitelist filtering
Network Delay	<300ms
<b>Environmental</b>	
Anti-Static	Air discharge: 8KV, contact protection: 6KV (for all ports)
Surge Protection	Difference mode: ±1KV, common mode: ±2KV (For network port and power port)
Operating Temperature	-40°F~140°F (-40°C~+60°C)
Storage Temperature	-40°F~140°F (-40°C~+60°C)
Operating Humidity	≤ 95% RH
Environmental Rating	IP66/IP68 rating
Impact Resistance	IK10

<b>Mechanical</b>	
Manual Speed	-
Preset Speed	-
Rotation Angle	-
Preset Accuracy	-
Electric Motor	-
<b>Electrical</b>	
Power Supply	PoE+ (IEEE802.3at type2 Class4)/ 24VAC
Power Consumption	25W (max)

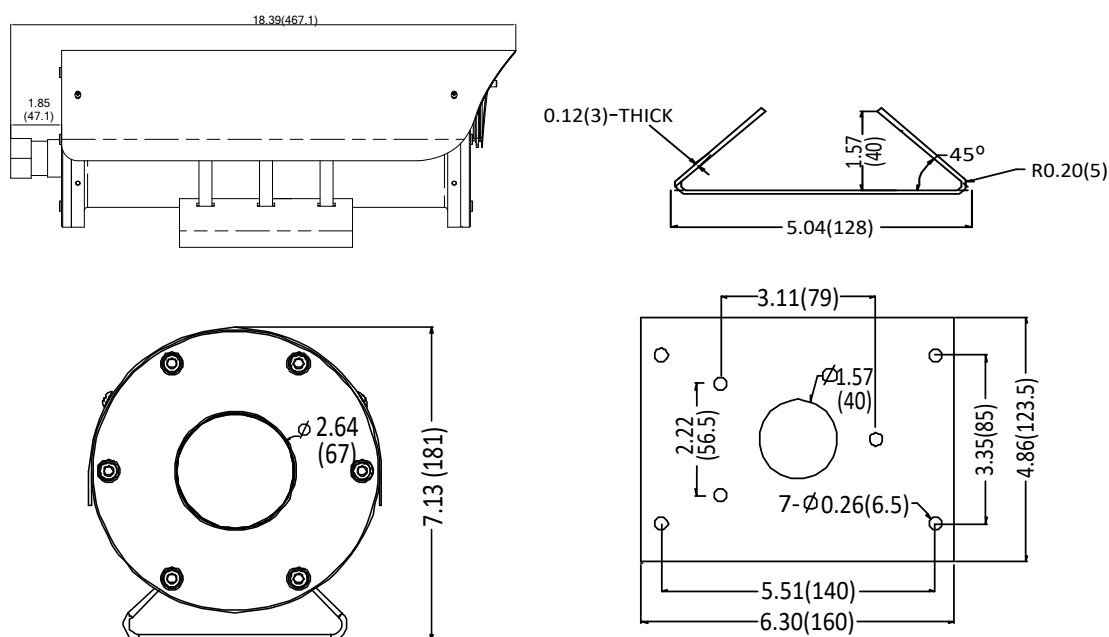
<b>Physical</b>	
Product Dimension (L×W×H) or (H x D)	467.1mm×181mm×123.5mm (length × width × height)
Package Dimension (L x W x H)	552mm×242mm×252
Unit Weight	33.07 lbs (14kg)
Shipping Weight	30.87 lbs (15kg)
<b>Certifications</b>	
Product Certifications	IECEX; CCOE/PESO; CE; FCC; IK10; IP66/IP68; RoHS

## ORDERING INFORMATION

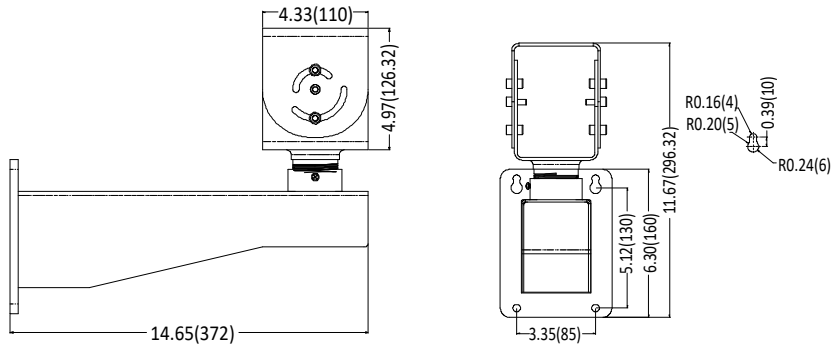
V1421MN-A222-A02	HD Megapixel Explosion-proof Integrated IP Fixed Camera, 2MP, 30X, 1/1.8"CMOS, Day/night, H.265/H.264/M-JPEG /SVC, 15" Explosion Proof Housing, With sunshield, Wiper, Heater, Blower, 316 Stainless Steel, With audio/alarm, 24VAC/PoE+
V1421MN-A222-A03	HD Megapixel Explosion-proof Integrated IP Fixed Camera, 2MP, 30X, 1/1.8"CMOS, Day/night, H.265/H.264/M-JPEG /SVC, 15" Explosion Proof Housing, With sunshield, Wiper, Heater, Blower, 316L Stainless Steel, With audio/alarm, 24VAC/PoE+
<b>Accessories</b>	
<b>Mount</b>	
V1665-W1	Adjustable Wall Mount, 316/316L Stainless Steel
<b>Power Supply</b>	
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



(Unit: inch, in the parentheses is mm)

## Installation

