VT241-A2 Series

HD 2MP Smart Starlight WDR Laser Integrated IP PTZ Camera System

Infinova®
The Integrator's Manufacturer

- Built-in with 30X HD integrated camera module
- 1/2" progressive scan CMOS sensor
- IR-Cut Removable (ICR) Filter for Day/Night switching
- Star-grade sensitivity: 0.0001Lux
- Built-in with laser source, the night illumination distance reaches up to 500m/800m
- Angles of laser beams can be auto-adjusted with the zoom module
- Support multi-frame WDR, up to 120dB
- Resolution up to 1920×1080@60fps
- H.265/H.264/M-JPEG video encoding, four streams
- Features rich smart functions:
  - 5 types of video anomaly detection: camera tampering, high brightness, low brightness, video loss and color cast
  - 10 types of behavior-analysis detection: motion detection, wire crossing detection, intrusion detection, loitering detection, object abandoned detection, object lost detection, abnormal sound detection, crowd detection, fast moving detection, and fighting detection
  - 1 statistics detection: crowd density detection
  - 3 types of feature detection: face detection, vehicle detection, and human body detection
- Support area zoom, image PTZ
- Support image OSD
- With built-in storage card (support dual SD cards)/NAS storage
- Two-way audio, G.711a/G.711u/G.726/AAC
- 2 alarm inputs, 1 alarm output
- Support multiple ways to trigger alarm: I/O input, network disconnection, motion detection, smart detection, heartbeat loss; support flexible alarm association settings: I/O output, email, FTP upload, audio, SD card snapshot, SD card recording
- Support Region of Interest (ROI), up to 8 areas
- Support real-time access and parameter configuration via Web Server by multiple users simultaneously
- Presets, Auto-Pans, Patterns, Auto-Scan, Timed Tour, Normal Tour and Home Return
- Compatible with Infinova digital video surveillance software, easy to integrate with other video surveillance software
- ONVIF Profile S, G & T complaint
- Standard SDK is provided to be integrated with other digital systems

- Smart motor is provided to auto-lock the camera so as to avoid altering the surveillance direction affected by strong wind or other severe conditions
- Provide extra-precise location information, and the zooming of the lens can be auto-adjusted as per the speed of the camera system
- High strength aluminum-alloy casting, heat and corrosion resistant
- 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
- IP66 environmental rating
- Upgrade online

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 high sensitivity, 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 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.

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 can lift higher than the high-speed dome, thus the view range is much further. The panning range is 0.5°~100°/s, and the tilting is 0.5°~60°/s. When calling presets, the max. panning speed reaches up to 100°/s and max. tilting speed to 60°/s.

The camera supports defrosting and defogging and boasts of excellent waterproof features and high and low temperature resistance. It has 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

Lens

Optical Zoom	30X, 12X Digitial Zoom
Image Sensor	1/ 2" Sony progressive scanning CMOS
Aperture/ Focal Length	F1.6~F4.8, f=5.5~210mm
Field of View	58.71°(Wide)~ 2.15°(Tele)
Min. Work Distance	0.01m (Wide) ~ 1.5m (Tele)
S/N Ratio	>62dB
Electronic Shutter	Auto/Manual (PAL: 1/1s-1/32000s)
DSS	Available
Day/Night Switch	ICR
Sensitivity	Color mode: 0.0003lux @F1.6 (AGC ON) B/W mode: 0.0001lux @F1.6 (AGC ON)

Video

Compression	H.265 /H.264 switchable M-JPEG independent encoding
Max. Encoding Capacity	H.264/H.265−60fps@1920×1080 + H.264/H.265−30fps@1920×1080 + MJPEG−30fps@1920×1080 + H264/H265−30fps@720x480
Multi-Stream	Four streams independent outputting
Network Delay	140ms

Audio

Compression	G.711-A/G.711-U/G.726/AAC
Sampling Rate	8KHz (for G.711-A/G.711-U/G.726) 16KHz, 32KHz, 44.1KHz or 48KHz (for AAC)
Ports	1 input, linear level, impedance: 1kΩ 1 output, linear level, impedance: 600Ω

Camera

White Balance	AUTO/MANUAL/OUTDOOR
WDR	120dB, multi-frame WDR
Video Adjustment	Brightness, contrast, saturation, hue, sharpness
DNR	3D
Defog	Available
EIS	Available
Image Mirror	H-mirror/V-mirror
AGC	Available
BLC	ON/OFF
HLC	ON/OFF
Privacy Mask	Up to 4 areas
ROI	Up to 8 areas
Smart Functions	**Abnormal video detections:** camera tampering, scene change, defocus, low brightness, high brightness, video loss, and color cast **Behavior-analysis detections**: motion detection, wire crossing detection, intrusion detection, loitering detection, object abandoned detection, object lost detection, abnormal sound detection, crowd detection, fast moving detection, and fighting detection **Statistics detections:** people counting, density detection, queue length detection, and dwelling detection **Feature detections:** face detection, vehicle detection, and people detection Support face detection, face tracking and snapshot based on deep learning Support snapshots priority selection and duplicate deletion. Face images or scene images can be uploaded to the platform for secondary retrieval and analysis Support intelligent exposure

Storage

Internal Storage	Supports dual cards, compatible with Micro SD/SDHC/SDXC card (single card up to 256G)

Alarm

Alarm Input	I/O input, motion detection, smart analysis, SD card removal, network disconnection, heartbeat loss
Alarm Association	I/O output, email, FTP upload, audio, SD card snapshot, SD card recording, alarm info push

Laser Lights

Night Illumination Distance	500m/800m

Wavelength	860±5nm
MTBF	6 Years

Functions

Programmable Presets	1024
Programmable Patterns	12
Programmable Auto-pans	12
Normal Tours	16 (each tour associates with 14 actions, optional with Preset 1~32, Pattern 1~4, AutoPan 1~4)
Home Return	Available
Timed Tours	Available
Auto Scan	Available
Area Zoom	Available

System Functions

Operating System	Windows XP, Win7, Win8
Browser	IE8, IE9, IE10, IE11
Access Protocols	ONVIF Profile S, G and T, Infinova CGI2.7
Web Server	Available
Online Upgrade	Available
Password Protection	Available
Black & White List	Available
RS485 Port	Available, 1-ch RS485
Analog Video Output	Available, 1-ch BNC port

IP

Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Network Protocol	IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP, SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, QoS, PPPoE, DNS, DDNS, ARP, ICMP, UPnP

Mechanical

Variable Speed	Pan: 0.5°~100°/s; Tilt: 0.5°~60°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 60°/s (max.)
Preset Accuracy	<±0.1°
Rotation Angle	Pan: 360°; Tilt: +40° ~ -85°

Electrical

Power Supply	24VDC (±10%)
Power Consumption	80W (max.)

Reliability

Anti-Static	Contact protection 8KV, Air discharge 9KV
Surge Protection	4KV

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~158°F (-40°C~+70°C)
Storage Temp.	-4°F~158°F (-20°C~+70°C)
Operating Humidity	0~95%RH (non-condensing)
Defroster	Thermostatically controlled, Turn on when below 59°F (15°C); Turn off when above 68°F (20°C)

Physical

Construction	High-strength aluminum alloy, stainless steel
Environmental Rating	IP66
Mounting	Surface, wall, pole side, corner, pole top
Window Type	HD clear glass
Window Size	2.32" × 2.32" (59mm×59mm)
Load	Pan: 77.16lbs. (35kg); Tilt: 22lbs. (10kg)
Unit Weight	44.09 lbs (20kg)
Shipping Weight	50.7 lbs (23kg)
Box Dimensions (L×W×H)	21.49"×8.22"×18.98" (546mm×209mm×482mm)

Certifications and Approval

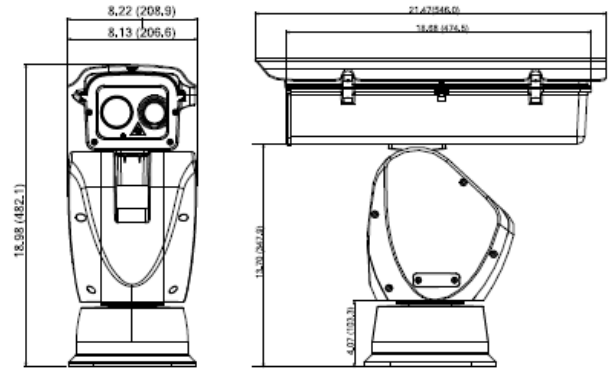|	
Product Certifications	CE, FCC, ISO 9001: 2008

Ordering information

VT241-A230-M1 HD 2MPSmart Starlight WDR Laser Integrated IP PTZ Camera System (2.0Mpx, 30X optical zoom, day/night, 1/2-inch progressive scan CMOS, H.265/H.264/M-JPEG, Night illumination distance up to 500m, 24VDC, w/ power adapter)

VT241-A230-M2 HD 2MPSmart Starlight WDR Laser Integrated IP PTZ Camera System (2.0Mpx, 30X optical zoom, day/night, 1/2-inch progressive scan CMOS, H.265/H.264/M-JPEG, Night illumination distance up to 800m, 24VDC, w/ power adapter

Note: Mounting brackets shall be ordered separately.

Recommended Installation Mounts

V1663-W2: Wall Mount
V1663-S2: Pole Side Mount
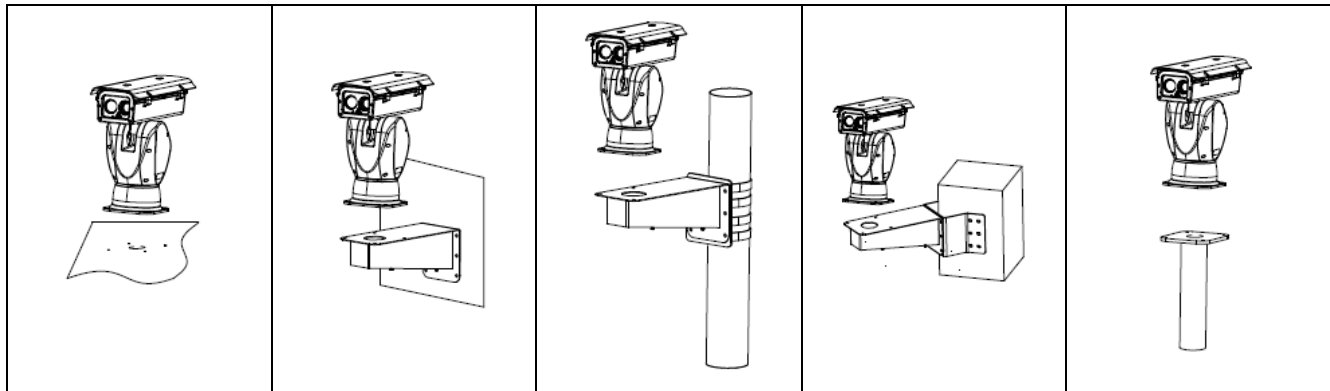V1663-C2: Corner Mount

Dimensions

Front View Side View

(Unit: inch, in the parentheses is mm)

Mounting

Surface Mount Wall Mount Pole Side Mount Corner Mount Pole Top Mount