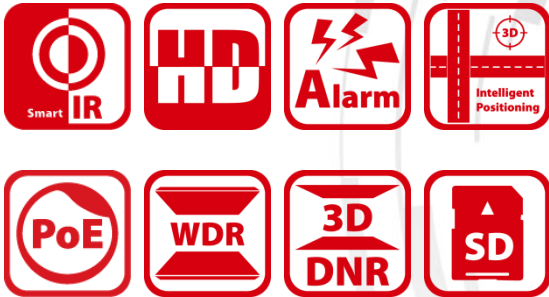# HIKVISION

DS-2DE4220W Series
2.0 MP 4-inch 20X Network PTZ Dome Camera

Hikvision DS-2DE4220W Series PTZ Dome Cameras are able to capture high quality images in low light environment.

Embedded with 1/2.8" progressive scan CMOS sensor makes DWDR and 2MP real-time resolution possible. With the 20X optical zoom Day/Night lens, the camera offers more details over expansive areas.

Hikvision DS-2DE4220W Series PTZ Dome Cameras also features a wide range of functions, and can be widely applied in forest, freeway, railway, airport, harbor, park, street, bus station, etc..

Key Features

- 1/2.8" Progressive Scan CMOS
- 1920 × 1080@30fps Resolution
- 20X Zoom
- DWDR
- 3D Positioning
- PoE (802.3at, class 4)
- Hik Cloud P2P
- IP66

Function Description

Basic Function

- H.264/MJPEG video compression, up to 1920 × 1080@30fps resolution
- PoE (802.3at)
- Mirror, and one-key restore
- Supports Hikvision SDK, ONVIF, CGI, PSIA, and Hik Cloud P2P
- 3D positioning
- ±0.1° preset accuracy
- Power-off memory: restore PTZ and Lens status after reboot

Smart Function

- Smart detection: intrusion detection, line crossing detection, audio exception detection, motion detection, and video tampering detection
- Smart recording: edge storage, smart search in smart NVR, and VCA playback
- Smart image enhancement: Digital WDR (Wide Dynamic Range), HLC (High Light Compensation), Defog, EIS (Electronic Image Stablization)
- Smart encoding: low bitrate, and ROI (Region of Interest) encoding
- Smart alarm: alarm for network disconnection, IP address conflict, HDD full, HDD error, and illegal login

Camera Function

- 20 × optical zoom, 16 × digital zoom
- Auto iris, auto focus, auto white balance, backlight compensation and 3D DNR
- Min. Illumination: 0.05Lux@(F1.6, AGC ON) (Color), 0.01Lux@(F2.0, AGC ON) (B/W)

PTZ Function

- 0° to 360° pan range, and 5° to 90° tilt range
- 0.1° to 160°/s manual pan speed, and 0.1° to 120°/s manual tilt speed
- 300 programmable presets
- 8 patrols, up to 32 presets for each patrol
- Proportional zoom, and park action
- 1 alarm input, 1 alarm output, and alarm linkage which is able to perform alarm actions, such as Send Email, Notify Surveillance Center, Upload to FTP/Memory Car/NAS, Trigger Recording, etc.

Network Function

- Micro SD/SDHC/SDXC card storage, up to 128GB
- Built-in microphone with 1 audio input and 1 audio output
- Supports NAS storage, and able to transmit the videos from memory card to the NAS after network resumed
- HTTPS encryption and IEEE 802.1x port-based network access control
- Supports three streams, H.264/MJPEG video compression, and baseline, main and high profiles
- Supports multiple network protocols: IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, DHCP, PPPoE, Bonjour

Specification

Camera Module	DS-2DE4220W
Image Sensor	1/2.8" progressive scan CMOS
Min. Illumination	Color: 0.05 Lux @ (F1.6, AGC ON), B/W: 0.01Lux @ (F1.6, AGC ON)
Day & Night	ICR Switch
Focus Mode	Auto/Semi-Auto/Manual
Shutter Speed	1/1 to 1/10,000s
Digital Zoom	16×
White Balance	Auto/manual/ATW (auto tracking white balance)/indoor/outdoor/daylight lamp/sodium lamp
AGC	Auto/Manual
Backlight Compensation	Support
Wide Dynamic Range	Support
DNR (Digital Noise Reduction)	Support
Privacy Mask	8 programmable privacy masks
Lens	
Focal Length	4.7 to 94mm, 20×
Field of View	61.4° to 2.9° (wide-tele)
Working Distance	10 to 1000mm (wide-tele)
Zoom Speed	Approx. 3s (optical lens, wide-tele)
Aperture Range	F1.6 to F3.5
Smart	
Smart Detection	Intrusion detection, line crossing detection, audio exception detection, motion detection, and video tampering detection
Smart Recording	Edge storage, smart search in smart NVR, and VCA playback
Smart Image Enhancement	WDR, HLC, Defog, EIS
Smart Encoding	Low bitrate, and ROI (Region of Interest) encoding
Smart Alarm	Alarm for network disconnection, IP address conflict, HDD full, HDD error, and illegal login
Network	
Main Stream	50Hz: 25fps (1920×1080,1280×960,1280×720), 50fps (1280×960,1280×720) 60Hz: 30fps(1920×1080,1280×960,1280×720), 60fps (1280×960,1280×720)
Sub-Stream	50Hz: 25fps(704×576,640×480,352×288) 60Hz: 30fps(704×480,640×480,352×240)
Third Stream	50Hz: 25fps (1920×1080,1280×960,1280×720,704×576,640×480,352×288) 60Hz: 30fps(1920×1080,1280×960,1280×720,704×480,640×480,352×240)
Video Compression	H.264/MJPEG
Audio compression	G.711alaw/G.711ulaw/G.722/G.726/MP2L2/PCM
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, DHCP, PPPoE, Bonjour
Simultaneous Live View	Up to 20 users
User/Host	Up to 32 users, 3 levels: Administrator, Operator, and User
Security Measures	User authentication (ID and PW), host authentication (MAC address), IP address filtering, HTTPS encryption and IEEE 802.1x port-based network access control
Pan and Tilt	
Movement Range	Pan: 360°, Tilt: 5° to 90°
Movement Speed	Pan: 0.1° to 160°/s, Tilt: 0.1°to 120°/s
Preset No.	300

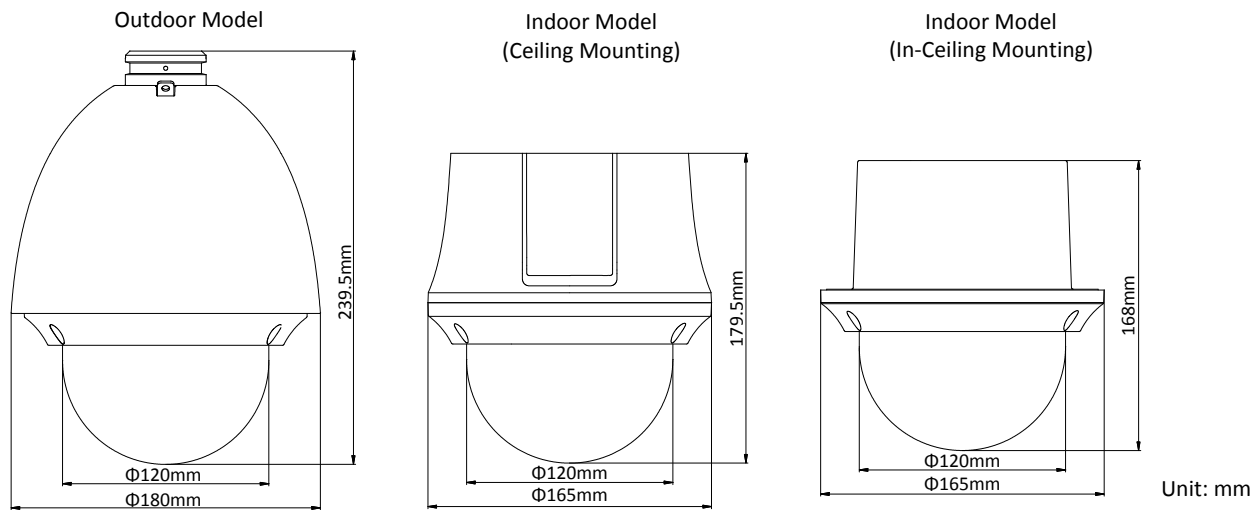| Patrol	8 patrols, up to 32 presets per patrol
Park Action	Preset/patrol/pattern/auto scan/tilt scan/random scan/frame scan/panorama scan
Scheduled Task	Preset/patrol/pattern/auto scan/tilt scan/random scan/frame scan/panorama scan/dome reboot/dome adjust/aux output
Proportional Zoom	Support
Power-off Memory	Support
Position Display	On/ Off
System Integration	
Alarm I/O	1 alarm input, 1 alarm output
Alarm Linkage	Alarm actions, such as Send Email, Notify Surveillance Center, Upload to FTP/Memory Car/NAS, Trigger Recording etc.
Audio I/O	1 audio input, 1 audio output
Ethernet	1 RJ45 10M/100M Ethernet interface
Memory Card	Built-in memory card slot, supporting SD/SDHC/SDXC, up to 128GB
Client	iVMS-4200
Web Browser	IE7+, Chrome18+, Firefox5.0+, Safari5.02+
General	
Power	AC 24V, and PoE (802.3at) Max.: 18W
Working Temperature	Indoor Models: -10°C to 50°C (-14°F to 122°F) Outdoor Models: -30°C to 65°C (-22°F to 149°F)
Working Humidity	≤ 90%
Protection Level	IP 66 (outdoor models), TVS 4,000V lightning protection, and surge protection
Dimensions(mm)	In-Ceiling Mounting Indoor Models: Φ165×168mm (Φ6.5"×6.6") Ceiling Mounting Indoor Models: Φ165×179.5mm (Φ6.5"×7.1") Outdoor Models: Φ179.4×239.5mm (Φ7.1"×9.4")
Weight	Approx. 2.0kg (4.4lb)

Available Model

DS-2DE4220W-AE: PoE (802.3at, class4) & AC24V, outdoor model

DS-2DE4220W-AE3: PoE (802.3at, class4) & AC24V, indoor model

* The indoor models support both the in-ceiling mounting and the ceiling mounting.

Dimension

Outdoor Model

239.5mm

Φ120mm
Φ180mm

Indoor Model
(Ceiling Mounting)

179.5mm

Φ120mm
Φ165mm

Indoor Model
(In-Ceiling Mounting)

168mm

Φ120mm
Φ165mm

Unit: mm

Accessories

DS-1618Z

Short-Arm Wall Mounting

DS-1661ZJ

Pendent Mounting (20cm)

DS-1662ZJ

Pendent Mounting (50cm)

DS-1663ZJ

Ceiling Mounting

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