

















- 1/1.8" Progressive Scan CMOS
- 1920 × 1080 @ 60fps
- MJPEG up to 1920 × 1080 @ 30fps
- 2.8 to 12 mm/8 to 32 mm motorized lens
- Color: 0.002 Lux @ (F1.2, AGC ON), 0.004 Lux @ (F1.6, AGC ON), 0 Lux with IR
- H.265, H.265+, H.264, H.264+
- 140dB WDR
- IR range: up to 30 m
- Alarm 1 input/1 output, audio 1 input/1 output, RS 485
- IK10
- 5 streams and up to 5 custom streams
- 6 behavior analyses, 3 exception detection, and face detection
- Built-in microSD/SDHC/SDXC card slot, up to 256 GB
- Metadata of intrusion detection, line crossing detection, region entrance detection, region exiting detection, unattended baggage detection, object removal, face capture and queue management are supported.



Function

Smooth Streaming

Smooth streaming offers solutions to improve the video quality in different network conditions. For example, in poor network conditions, adapting to the detected real-time network condition, streaming bit rate and resolution are automatically adjusted to avoid mosaic and lower latency in live view; in multiplayer network conditions, the camera transmits the redundant data for the self-error correcting in back-end device, so that to solve the mosaic problem because of the packet loss and error rate.

Metadata

Metadata uses individual instances of application data or the data content. Metadata can be used for third-party application development.

Face Capture

With embedded deep learning based algorithms, the camera is able to give the best shot of a target face through detecting, tracking, capturing, grading and selecting. The procedure reduces the happening of mistaken capture, and thus gets the best face shot, improving the accuracy rate of face comparison by the back-end devices. The camera uses face exposure function to dynamically adjusts face area exposure of captures and ensure high face picture quality.

Perimeter Protection

With embedded deep learning based target detection and classification algorithms, the camera carries out the duty of perimeter protection, monitoring the actions of line crossing, intrusion, region entrance and region exiting. The algorithms greatly reduce the mistaken alarm caused by the interference of leafs, lights and etc.

Power Protection

The camera supports a wide voltage range of 10 VDC to 48 VDC. If the voltage instability occurs, the camera still works properly. The camera supports reverse polarity protection which can avoid the camera malfunction caused by false operation.

Queue Management

With embedded deep learning based algorithms, the camera detects queuing-up people number and waiting time of each person. The body feature detection algorithm helps filter out wrong targets and increase the accuracy of detection.



Specifications

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.002 Lux @ (F1.2, AGC ON), 0.004 Lux @ (F1.6, AGC ON), 0 Lux with IR
Shutter Speed	1 s to 1/100,000 s
Slow Shutter	Yes
Day & Night	IR Cut Filter
WDR	140 dB
Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°
Lens	
Lens Type	Motorized lens, 2.8 to 12 mm and 8 to 32 mm optional
Aperture	2.8 to 12 mm: F1.2 to 2.5
	8 to 32 mm: F1.6, Constant F1.6 throughout the zoom range
Focus	Auto, semi-auto, manual
Auto-Iris	DC drive, P-iris
	2.8 to 12 mm, horizontal FOV 103.3° to 38.6°, vertical FOV 54.2° to 21.9°, diagonal
	FOV 124.2° to 44.3°
FOV	8 to 32 mm, horizontal FOV 42.5° to 13.4°, vertical FOV 23.4° to 7.7°, diagonal FOV 49°
	to 15.3°
Lens Mount	Integrated
Illuminator	
IR Range	Up to 30 m
Wavelength	850 nm
Video	
Max. Resolution	1920 × 1080
Video Stream	5 defined streams and up to 5 custom stream
Main Stream	50Hz: 50fps (1920 × 1080, 1280 × 960, 1280 × 720)
	60Hz: 60fps (1920 × 1080, 1280 × 960, 1280 × 720)
Sub Stream	50Hz: 25fps (704 × 576, 640 × 480)
	60Hz: 30fps (704 × 480, 640 × 480)
Third Stream	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480)
	60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)
	60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Eifth Stroom	50Hz: 25fps (704 × 576, 640 × 480)
Fifth Stream	60Hz: 30fps (704 × 480, 640 × 480)



Custom Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480)
Castom stream	60Hz: 30fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
	Main stream: H.265+/H.265/H.264+/H.264
Video Compression	Sub stream/third stream/fourth stream/fifth stream/custom stream:
	H.265/H.264/MJPEG
H.264 Type	Baseline Profile/Main Profile/High Profile
H.264+	Main stream support
H.265 Type	Main Profile
H.265+	Main stream support
Video Bit Rate	32 Kbps to 16 Mbps
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Audio	
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3
Audio Bit Rate	64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)/32Kbps(PCM)/
Audio bit hate	8-320Kbps(MP3)
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Smart Feature-Set	
	Line crossing detection, up to 4 lines configurable
	Intrusion detection, up to 4 regions configurable
	Region entrance detection, up to 4 regions configurable
Smart Event	Region exiting detection, up to 4 regions configurable
Smart Event	Unattended baggage detection, up to 4 regions configurable
	Object removal detection, up to 4 regions configurable
	Face detection: detects faces and upload images
	Scene change detection, audio exception detection, defocus detection
Basic Event	Motion detection, video tampering alarm, exception (network disconnected, IP
	address conflict, illegal login, HDD full, HDD error) Face detection performance: detects up to 30 faces at the same time
Face Capture	Detectable face position: supports swing left and right from -90° to 90°, tilt up and
	down from -30° to 60°
	Line crossing, intrusion, region entrance, and region exiting
Perimeter Protection	Support alarm triggering by specified target types (human and vehicle)
	Filtering out false alarm caused by target types such as leaf, light, animal, and flag, etc.
	Detects queuing-up people number, and waiting time of each person
Queue Management	Generates reports to compare the efficiency of different queuing-ups and display the
	changing status of one queue
Ctatistics	Supports raw data export for further analysis
Statistics	Counting
District Adams	Trigger recording: memory card, network storage, pre-record and post-record
Linkage Method	Trigger captured pictures uploading: FTP, SFTP, HTTP, NAS, Email
	Trigger notification: HTTP, ISAPI, alarm output (-S), Email



Region of Interest	Main stream/sub stream/third stream/fourth stream/fifth stream: 4 fixed regions and dynamic face tracking for each stream
Image	
Image Enhancement	BLC, HLC, 3D DNR, Defog, EIS, distortion correction
mage Emancement	Rotate mode, saturation, brightness, contrast, sharpness, AGC, and white balance are
Image Setting	adjustable by client software or web browser
Target Cropping	Yes
Day/Night Switch	Day/Night/Auto/Schedule/Triggered by Alarm In
Picture Overlay	LOGO picture can be overlaid on video with 128 $ imes$ 128 24bit bmp format
SNR	≥52dB
Network	
	microSD/SDHC/SDXC card (256 GB), local storage and NAS (NFS,SMB/CIFS), ANR
Network Storage	Together with high-end Hikvision memory card, memory card encryption and health
	detection are supported.
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE,
	NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
API	ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, Ehome
Smooth Streaming	Yes
	Password protection, complicated password, HTTPS encryption, 802.1X authentication
Socurity	(EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest
Security	authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTP/RTSP
	over HTTPS, control timeout settings, security audit log, TLS 1.2, TLS1.0, TLS1.1
Simultaneous Live View	Up to 20 channels
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	Plug-in required live view: IE8+
	Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+
	Local service: Chrome57.0+, Firefox52.0+
Interface	
Audio	1 input (line in, 3.5 mm), 1 output (line out, 3.5 mm), mono sound
Communication Interface	1 RJ45 10M/100M/1000M Ethernet port
	1 RS-485 interface (half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)
Alarm	1 input, 1 output (max. 24 VDC/VAC, 1A)
Video Out	1Vp-p composite output (75 Ω /CVBS), only for adjustment
Power Output	12 VDC, max. 200 mA
Interface Style	Connector panel
On-board Storage	Built-in microSD/SDHC/SDXC slot, up to 256 GB
General	
Firmware Version	5.6.0

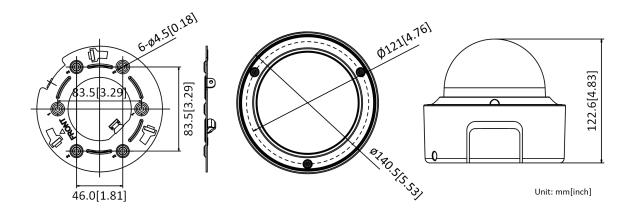


Web Client Language	32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil)
General Function	Anti-flicker, 5 streams and up to 5 custom streams, heartbeat, mirror, privacy masks, flash log, password reset via e-mail, pixel counter, HTTP listening
Reset	Reset via reset button on camera body, web browser and client software
Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F), humidity 95% or less (non-condensing)
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F), humidity 95% or less (non-condensing)
Power Supply	12 VDC is recommended, 10 to 48 VDC; reverse polarity protection; two-core terminal block; PoE (802.3af, class 3)
Power Consumption and Current	With extra load: 12 VDC, 0.8 A, max. 10.5 W; PoE (802.3af, 36 V to 57 V), 0.2 A to 0.3 A, class 3 Without extra load: 12 VDC, 0.6 A, max. 8.0 W; PoE (802.3af, 36 V to 57 V), 0.2 A to 0.3 A, class 3 "with extra load" means that an extra device is connected to and powered by the camera.
Material	Metal
Dimensions	Camera: Φ 140.5 × 122.6 mm (Φ 5.5" × 4.8") With package: 244 × 174 × 173 mm (9.6" × 6.9" × 6.8")
Weight	Camera: approx. 950 g (2.09 lb.) With Package: approx. 1300 g (2.87 lb.)
Approval	
EMC	47 CFR Part 15, Subpart B; EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014; AS/NZS CISPR 32: 2015; ICES-003: Issue 6, 2016; KN 32: 2015, KN 35: 2015
	III 600F0 1 IFC 600F0 1:200F + Am 1:2000 + Am 2:2012 FN 600F0 1:200F + Am
Safety	UL 60950-1, IEC 60950-1:2005 + Am 1:2009 + Am 2:2013, EN 60950-1:2005 + Am 1:2009 + Am 2:2013, IS 13252(Part 1):2010+A1:2013+A2:2015
Safety Chemistry	
·	1:2009 + Am 2:2013, IS 13252(Part 1):2010+A1:2013+A2:2015

^{*} Listed resolutions are only selectable options. It does not mean that all streams can work at their maximum resolution at the same time.



Dimension



Accessory

