

**PRO** 

PTZ Ultra Dome

AI 5X/12X/20X/23X PTZ Network Camera

AI Video Analytics

- 8 intelligent VCA modes powered by AI engine, which can intelligently filter objects to focus on human and vehicle detection.
- People Counting technology provides high accuracy and real-time data based on AI algorithm with statistic reports.
- Face Detection function detects human faces in the monitoring scene and captures the snapshots, which greatly enhances the monitoring efficiency.

3 in 1 Super WDR Pro & 0.001 Lux Ultra Low-light

140dB Super WDR Pro combines 3 frames with multiple exposures to get the optimal images especially moving subjects in high contrast lighting situations. Meanwhile, the cameras can capture full-color images in extremely low-light conditions reaching 0.001 Lux without extra light supplement.

23X Optical Zoom

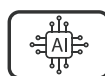
The 23X optical zoom can zoom up to distant subjects while still maintaining the clarity, delivering high quality video over the entire zoom range.

30fps@4K

Providing 4K HD resolution with frame rate of 30fps, the camera performs well in catching detailed image regardless of the moving speed.

FEATURES

- Smart IR II Combining the High Beam and Low Beam to adjust IR intensity.
- Smart Stream saves on H.265+ 70%~80% bandwidth that of H.264.
- Smart PTZ Motion Detection .
- Keyboard Control.
- New-generation PTZ Motor.



PRO SERIES

TECHNICAL SPECIFICATION

CAMERA

	MV-P228-X12-PTZ-UD (2MP)	MV-P220-X20-PTZ-UD (2MP)	MV-P228-X23-PTZ-UD (2MP)	MV-P528-X12-PTZ-UD (5MP)
Image Sensor	1/2.8" Progressive Scan CMOS	1/2" Progressive Scan CMOS	1/2.8" Progressive Scan CMOS	
Min. Illumination	Color: 0.002Lux@F1.2 Color: 0.005Lux@F1.6 B/W: 0Lux with IR on	Color: 0.001Lux@F1.2 Color: 0.002Lux@F1.6 B/W: 0Lux with IR on	Color: 0.002Lux@F1.2 Color: 0.005Lux@F1.5 B/W: 0Lux with IR on	Color: 0.005Lux@F1.2 Color: 0.008Lux@F1.6 B/W: 0Lux with IR on
WDR	140dB Super WDR Pro	140dB Super WDR (Super WDR Pro is optional for T Series)	140dB Super WDR (Super WDR Pro is optional for T Series)	120dB Super WDR
Shutter Time	1/100000s~1s			
Digital Zoom	16X			
Day/Night Mode	Day/Night/Auto/Customize/Schedule			
S/N	>55dB			

LENS

Focal Length	5.3~64mm, 12X Optical Zoom	6.4~128mm, 20X Optical Zoom	5~117mm, 23X Optical Zoom	5.3~64mm, 12X Optical Zoom
Zoom Speed	Approx 4s (Wide-Tele)	Approx 5s (Wide-Tele)	Approx 6s (Wide-Tele)	Approx 4s (Wide-Tele)
Field of View	H61°~H5°/D69°~D5°/V36°~V2°	H60°~H3°/D67°~D4°/V37°~V1°	H60°~H3°/D69°~D4°/V35°~V2°	H57°~H4°/D69°~D5°/V44°~V1°
Focus Control	Auto/Semi-Auto/Manual			
Minimum Working Distance	1000/1500mm (Wide/Tele)	1000/2000mm (Wide/Tele)	100/1500mm (Wide/Tele)	
Aperture	F1.6~F2.8	F1.6~F4.0	F1.5~F3.5	F1.6~F2.8
Iris Control	Auto			

PTZ

Pan Range/Pan Speed	360° endless; Pan Manual Speed: 0.1°~450°/s, Pan Preset Speed: 450°/s
Tilt Range/Tilt Speed	-5°~90° (Auto Flip); Tilt Manual Speed: 0.1°~360°/s, Tilt Preset Speed: 360°/s
Proportional Zoom	Support
Preset Quantity	300
Patrol	8 Patrols, up to 48 presets each patrol
Pattern	4 Patterns
Auto Tracking	Support
Power Off Memory	Support
Other Function	Auto Scan, Auto Home, Preset Freezing, 3D Positioning, PTZ Limits, Initial Position

IR

IR Distance	Up to 160m
IR Angle	Auto/Manual

VIDEO

Max. Image Resolution	1920x1080	2592x1944
Primary Stream	60Hz: 100fps@(1920x1080)(Optional for T Series), 60fps@(1920x1080, 1280x960, 1280x720, 704x576) 50Hz: 100fps@(1920x1080)(Optional for T Series), 50fps@(1920x1080, 1280x960, 1280x720, 704x576)	60Hz: 30fps@(2592x1944), 45fps@(2048x1536), 60fps@(1920x1080, 1280x960, 1280x720, 704x576) 50Hz: 25fps@(2592x1944), 45fps@(2048x1536), 50fps@(1920x1080, 1280x960, 1280x720, 704x576)

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TECHNICAL SPECIFICATION

VIDEO

	MV-P228-X12-PTZ-UD (2MP)	MV-P220-X20-PTZ-UD (2MP)	MV-P228-X23-PTZ-UD (2MP)	MV-P528-X12-PTZ-UD (5MP)
Secondary Stream	60Hz: 60fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180) 50Hz: 50fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)			60Hz: 30fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180) 50Hz: 25fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)
Tertiary Stream	60Hz: 30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192, 320x180) 50Hz: 25fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192, 320x180)			
Video Compression	H.265+/H.265(HEVC)/H.264+/H.264/MJPEG			
Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)			
Privacy Masking	Up to 28 areas(24 mask areas and 4 mosaic areas)			
ROI	Up to 8 areas			
Image Setting	Brightness/Contrast/Saturation/Sharpness			

INTERFACE

Ethernet	1*RJ45 10M/100M Ethernet Port
Audio I/O	1/1
Alarm I/O	1/1

NETWORK

Network Storage	NAS(Support NFS, SMB/CIFS), ANR(Automatic Network Replenishment)
Protocol	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP, ICMP, SSL

AUDIO

Audio Compression	G.711/AAC/G.722/G.726
Audio Sampling Rate	8/16/32/44.1/48KHz
Audio Bit Rate	16~256kbps
Two-way Audio	Support

INTELLIGENT ANALYTICS

Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Object Left, Object Removed
Face Detection	Detect and capture faces, get real-time snapshots
People Counting& Report	Count the number of people entering or exiting, up to 4 detection areas for regional people counting

SYSTEM

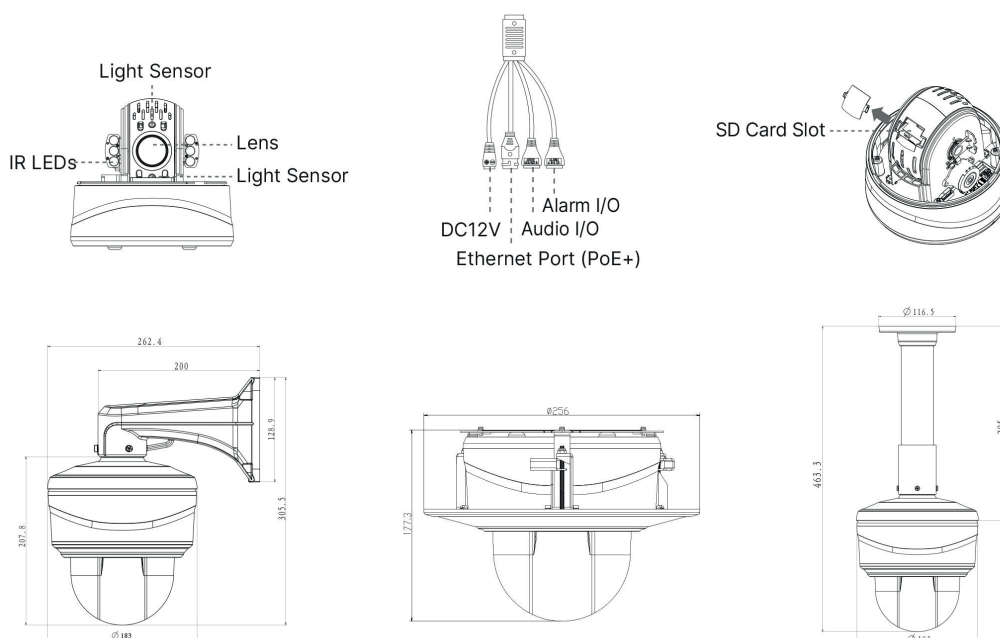
Storage	Support microSD/SDHC/SDXC Card Local Storage, up to 256Gb
Advanced Function	BLC, HLC, 2D DNR, 3D DNR,Defog, AWB, EIS, IP Address Filtering,AGC, Anti-flicker, Corridor Mode, Deblur, Watermark
SIP/VoIP Support	Yes, Voice & Video-over-IP
Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc.
Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, PTZ Motion, HTTP Notification, etc.
System Compatibility	ONVIF Profile G & Q & S & T, API

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GENERAL

	MV-P228-X12-PTZ-UD (2MP)	MV-P220-X20-PTZ-UD (2MP)	MV-P228-X23-PTZ-UD (2MP)	MV-P528-X12-PTZ-UD (5MP)
Working Condition	-40°C~60°C/ Humidity: 0~90%(Non-condensing)			
Power Supply	PoE (802.3at) / DC 12V/3A±10%			
Power Consumption	11W MAX, 19W MAX (With IR on)			
Weather Proof/Housing	Up to IP66-rated for Weather-resistant Performance			
Surge Protection	2.9Kg			
Dimensions/Weight	110mmX337mmX220mm			
Warranty	2 Years / 3 Years (Optional)			

STRUCTURE DIAGRAMS



ACCESSORIES

Units: mm

A01 Pole Mount

Weight: 720g
Dimensions: 170*51.5*152.6mm



A03 External Corner Bracket

Weight: 900g
Dimensions: 170*152.5*76.3mm



A42-L Extension Lever

Weight: 325g
Dimensions: 57*255mm



A43 Junction Box

Weight: 1000g
Dimensions: 195*164*80mm



A77 Wall Mount

Weight: 650g
Dimensions: 262*185*138mm



A78 Recessed Mount

Weight: 715g
Dimensions: 256*94mm



A79 Pendant Mount

Weight: 850g
Dimensions: 185*295mm



AC-71 Smoked Dome Cover

For concealing where a camera is pointed

