

NP503A-IR-36X

3 MP High Frame Rate Smart PTZ Camera



NP503A-IR-36X Smart PTZ Dome Cameras are able to capture high quality images of fast moving objects with its high frame rate technology (up to 30 fps @ 3 MP). The embedded 1/3" progressive scan CMOS chip makes true WDR (120 dB) and 2 MP real-time resolution possible. With the 36x optical zoom Day/Night lens, the camera offers more details over expansive areas.

NP503A-IR-36X Smart PTZ dome cameras also feature a wide range of Smart functions, including face detection, intrusion detection, line crossing detection, and audio exception, benefitting users with great improvement on security efficiency, more importantly, with key events/objects being recorded for further forensic needs. These features are combined with smart tracking, which enables the camera to detect any progressively moving object and follow it within the camera's area of coverage without fault. Smart defog and HLC/BLC are further supported to improve image quality in challenging conditions.

Key Features

- 1/3" HD CMOS Sensor
- 3 MP (2048 x 1536) Resolution
- High Frame Rate, up to 30 fps @ 3 MP
- 36x Optical Zoom
- 120 db Ultra WDR
- Smart Tracking
- Smart Detection
- Defog
- 200 m IR Distance
- Optional Wiper (-W)
- Hi-PoE/24 VAC Power Supply



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Function Description

Basic Functions:

- High Performance CMOS, Up to 2048 x 1536 Resolution
- $\pm 0.1^\circ$ Preset Accuracy
- ONVIF (Open Network Video Interface Forum), CGI (Common Gateway Interface), PSIA (Physical Security Interoperability Alliance), to ensure greater interoperability and compatibility between different platforms

- 3D Intelligent Positioning Function
- High Frame Rate at 3 MP
- 3D DNR
- 120 dB WDR
- IP66 Standard
- 7 Alarm Inputs and 2 Alarm Outputs
- Scheduled PTZ Movement
- Optional Wiper (-W)

Smart Functions:

- Smart Tracking Modes: Supports manual/panorama/intrusion trigger/line crossing trigger, support smart tracking when patrol between multiple scenarios
- Smart Detection: Supports face detection, intrusion detection, line crossing detection, audio exception detection
- Smart Recording: Supports edge recording, dual-VCA for smart search in Smart NVR
- Smart Image Processing: Defog, HLC/BLC, smart IR
- Smart Codec: Low bit rate, ROI

Camera Functions:

- Auto iris, auto focus, auto white balance, backlight compensation, and auto day/night switch
- Minimum Illumination: 0.05 lux @ f/1.6, AGC on (color), 0.01 lux @ f/1.6, AGC on (B/W)
- Supports privacy mask with multiple colors and mosaics on polygonal areas

PTZ Functions:

- 360° endless pan range and -20° to 90° tilt range
- 240°/s Pan Preset Speed and 200°/s Tilt Preset Speed
- 0.1° to 160°/s Manual Pan Speed and 0.1° to 120°/s Manual Tilt Speed

- 300 presets programmable; preset image freezing capability
- 16 patrols, up to 32 presets per patrol
- 10 patterns, with the recording time not less than 10 minutes per pattern
- Proportional zoom function
- Park Action: Auto call up of PTZ movement, after a defined time of inactivity
- Power-Off Memory: Restore PTZ and lens status after reboot

Network Functions:

- H.264/MJPEG video compression
- H.264 encoding with Baseline/Main/High profile
- ROI (Region of Interest) encoding (support 24 areas with adjustable levels)
- Built-in Web server
- Onboard storage, up to 64 GB
- Supports up to 8 NAS storage; Edge recording (transmits videos from SD card to NAS after network resumes)
- HTTPS encryption and IEEE 802.1X port-based network access control
- Supports trip-streams
- Multiple network protocols supported: IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
- 1 audio input and 1 audio output

IR Functions:

- 0 lux minimum illumination
- Up to 200 m IR distance
- IR light MTBF reaching up to 30,000 hours



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Model	NP503A-IR-36X
Camera Module	
Image Sensor	1/3" progressive scan CMOS
Minimum Illumination	f/1.6, AGC on: Color: 0.05 lux, B/W : 0.01 lux , 0 lux with IR
Maximum Image Resolution	2048 x 1536
Focal Length	4.5 to 162 mm, 36x
Digital Zoom	16x
Zoom Speed	Approximately 3.3 s (optical wide to tele)
Angle of View	60.6° to 3.68° (wide to tele)
Minimum Working Distance	10 to 1500 mm (wide to tele)
Aperture Range	f/1.6 to f/4.4
Focus Mode	Auto/Semiautomatic/Manual
WDR	120 dB
S/N Ratio	≥55 dB
Shutter Time	60 Hz: 1 to 1/30,000 s
AGC	Auto/Manual
White Balance	Auto/Manual/ATW/Indoor/Outdoor/Daylight Lamp/Sodium Lamp
Day/Night	TRUE, IR Cut Filter
Privacy Mask	24 privacy masks programmable; optional multiple colors and mosaics
Enhancement	3D DNR, Defog, HLC/BLC, SVC
Pan and Tilt	
Range	Pan:360° endless; Tilt: -20° to 90° (auto flip)
Speed	Pan Manual Speed: 0.1° to 160°/s, Pan Preset Speed: 240°/s Tilt Manual Speed: 0.1° to 120°/s, Tilt Preset Speed: 200°/s
Number of Presets	300
Patrols	16 patrols, up to 32 presets per patrol
Patterns	10 patterns, with the recording time not less than 10 minutes per pattern
Park Actions	Preset/Patrol/Pattern/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan
Scheduled Tasks	Preset/Patrol/Pattern/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Dome Reboot/Dome Adjust/Aux Output
Smart Features	
Smart Tracking	Manual/Panorama/Intrusion Trigger/Line Crossing Trigger/Region Entrance Trigger/Region Exiting Trigger Smart tracking when patrol between multiple scenarios
Smart Detection	Face detection, intrusion detection, line crossing detection, audio exception detection, region entrance, region exiting
ROI Encoding	Support 24 areas with adjustable levels
Infrared	
IR Distance	Up to 200 m
IR Intensity	Automatically adjusted, depending on the zoom ratio
Alarm	
Alarm I/O	7/2
Alarm Trigger	Face detection, intrusion detection, line crossing detection, region entrance, region exiting, audio exception detection, motion detection, dynamic analysis, tampering alarm, network disconnect, IP address conflict, storage exception
Alarm Action	Preset, Patrol, Pattern, microSD/SDHC card recording, Relay Output, Notification on Client
Input/Output	
Monitor Output	1.0 V _[p-p] /75 Ω, NTSC (or PAL) composite, BNC
Audio Input	1 mic in/line in interface, line input: 2 to 2.4 V _[p-p] ; output impedance: 1K Ω, ±10%
Audio Output	1 audio output interface, line level, impedance: 600 Ω
Network	
Ethernet	10Base-T/100Base-TX, RJ-45 connector
Main Stream	60 Hz: 30 fps (2048 x 1536), 60 fps (1920 x 1080), 30 fps (1280 x 720)
Sub Stream	60 Hz: 30 fps (704 x 480, 352 x 240, 176 x 120)
Third Stream	60 Hz: 30 fps (2048 x 1536), 30 fps (1920 x 1080), 30 fps (1280 x 720), 30 fps (704 x 480), 30 fps (352 x 240), 30 fps (176x120)
Image Compression	H.264/MJPEG, H.264 encoding with Baseline/Main/High profile

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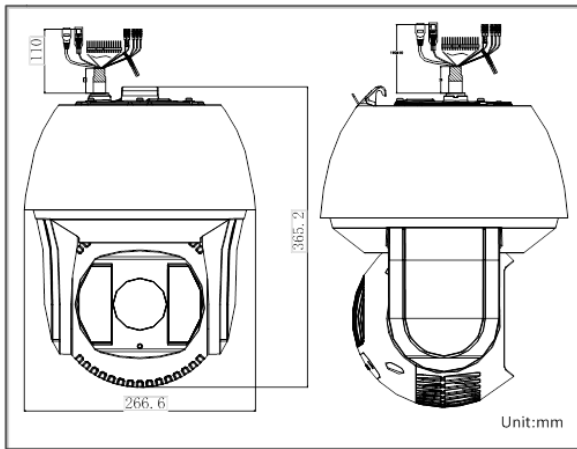
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Audio Compression	G.711ulaw/G.711alaw/G.726/MP2L2/G.722
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
Simultaneous Live Views	Up to 20 users
Memory Card	Supports up to 64 GB microSD/SDHC/SDXC card, Edge recording
User/Host Level	Up to 32 users, 3 Levels: Administrator, Operator, and User
Security Measures	User authentication (ID and PW); host authentication (MAC address); IP address filtering

System Integration

Application Programming	Open-ended API, supports ONVIF, PSIA, CGI, and Genetec
Web Browser	IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+, supports multi-language
RS-485 Protocols	HIKVISION, Pelco-P, Pelco-D, self-adaptive
Power	High-PoE and 24 VAC, maximum 60 W
Working Temperature	-40°C to 65°C (-40°F to 149°F)
Humidity	90% or less
Protection Level	IP66, IK10, TVS 6,000 V lightning protection, surge protection and voltage transient protection
Certification	FCC, CE, UL, RoHS, IEC/EN 61000, IEC/EN 55022, IEC/EN 55024, IEC/EN60950-1
Dimensions	Φ266.6 mm × 365.2 mm
Weight (approximate)	8 kg (approximately)
Mount Options	Long-arm wall mount: WMP-L; corner mount: CMP; pole mount: PMP; power box mount: JBP; short pendant mount: CPM-S; long pendant mount: CPM-L

Dimensions



Accessories



WMP-L Long-Arm Wall Mount



CMP Corner Mount (shown with WMP-L)



PMP Pole Mount (shown with WMP-L)



JBP Power Box Mount (shown with WMP-L)



CPM-S Pendant Mount



CPM-L Pendant Mount



Network Keyboard



USB Joystick KB1005KI