

Milesight

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

NDA A

IP66

Ik10



DATASHEET

Key Features

- ▶ NDA A Compliance (The fully NDA A-compliant products are well suited for government, defense and a range of projects subject to the NDA A.)
- ▶ 0.002Lux Starlight (Delivering detailed color image even in the low light environments reaching 0.002Lux(Color) or 0Lux(B/W).)
- ▶ 140dB Super WDR (Excellent performance even when the ratio of the luminosity of brightest and darkest is up to 140dB.)
- ▶ Advanced Functions (Boasting to support various advanced functions such as HLC, ROI.)
- ▶ 300 Preset Positions (The user can easily control the lens position via mouse to monitor interested area and set up to 300 preset positions for patrolling.)
- ▶ Keyboard Control (Shortcut keys for PTZ control via Keyboard.)
- ▶ Smart Stream (Bandwidth, storage and bit rate are saved with Smart Stream On, eg, H.265+ saves 70%~80% bandwidth that of H.264.)

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/Vehicle 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.



High Speed & Precise Movement

With a sophisticated pan/tilt mechanism, the 12X/20X/23X AI PTZ Dome Network Camera provides fast, precise movement with 360° endless pan and -5~90° (Auto Flip). Maximum pan speed of 350°/s and tilt speed of 360°/s make the camera a mighty Speed Dome model.



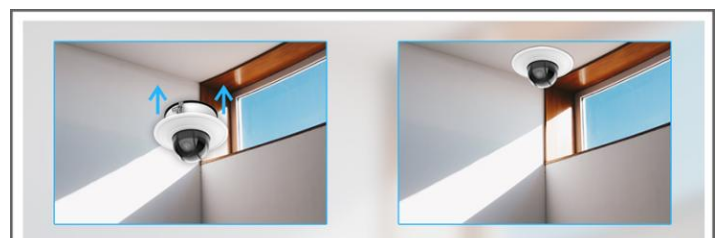
Smart IR II Technology

It allows the camera to catch better images regardless of object distance with High Beams and Low Beams whose brightness could be adjusted manually or automatically. Also, the innovative IR Anti-reflection Panel protects the lens from IR interference.



Recessed Installation

With recessed installation, the 12X/20X/23X AI PTZ Dome Network Camera is easily blend in with the environment to provide discreet surveillance.



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



	Model	MS-C2971-X12R(T)PE (2MP)	MS-C2971-X23R(T)PE (2MP)	MS-C4471-X20RPE (4MP)
Camera	Image Sensor	1/2.8" Progressive Scan CMOS	1/2.8" Progressive Scan CMOS	1/1.8" Progressive Scan CMOS
	Min. Illumination	Color: 0.005Lux@F1.6 B/W: 0Lux with IR on	Color: 0.005Lux@F1.5 B/W: 0Lux with IR on	Color: 0.002Lux@F1.6 B/W: 0Lux with IR on
	WDR	140dB Super WDR		
	Shutter Time	1/1000000s~1s		
	DORI Distance	D: 82.5~996m O: 32.5~392m R: 16~196m I: 8~99m	D: 85.5~1710m O: 33.5~673m R: 17~337m I: 8.5~168m	D: 120~2110m O: 47~831m R: 23.5~415m I: 12~208m
	Digital Zoom	16X		
	Day/Night Mode	Day/Night/Auto/Customize/Schedule		
	S/N	>55dB		
Lens	Focal Length	5.3~64mm, 12X Optical Zoom	5~117mm, 23X Optical Zoom	6.4~128mm, 20X Optical Zoom
	Zoom Speed	Approx 4s (Wide-Tele)	Approx 6s (Wide-Tele)	Approx 5s (Wide-Tele)
	Field of View	H61°~H4.8°/D69°~D5.7°/V36°~V2.8°	H60°~H2.8°/D69°~D3.2°/ V35°~V1.5°	H60°~H3.4°/D67°~D3.9°/V37°~V1.9°
	Focus Control	Auto/Semi-Auto/Manual		
	Minimum Working Distance	1000/1500mm(Wide/Tele)	100/1500mm (Wide/Tele)	100/2000mm(Wide/Tele)
	Aperture	F1.6~F2.8	F1.5~F3.5	F1.6~F4.0
	Iris Control	Auto		
PTZ	Pan Range / Pan Speed	360° endless; Pan Manual Speed: 0.1°~350°/s, Pan Preset Speed: 350°/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	1920x1080	2688x1520
	Primary Stream	60Hz: 90fps@(1920x1080)(Optional for T Series), 60fps@(1920x1080, 1280x960, 1280x720, 704x576) 50Hz: 90fps@(1920x1080)(Optional for T Series), 50fps@(1920x1080, 1280x960, 1280x720, 704x576)	60Hz: 90fps@(1920x1080)(Optional for T Series), 60fps@(1920x1080, 1280x960, 1280x720, 704x576) 50Hz: 90fps@(1920x1080)(Optional for T Series), 50fps@(1920x1080, 1280x960, 1280x720, 704x576)	60Hz: 60fps@(2688x1520, 2304x1296, 1920x1080, 1280x720) 50Hz: 50fps@(2688x1520, 2304x1296, 1920x1080, 1280x720)
	Secondary Stream	60Hz: 60fps@(704x576, 640x480, 640x360, 352x288, 320x240) 50Hz: 50fps@(704x576, 640x480, 640x360, 352x288, 320x240)		

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Video	Tertiary Stream	60Hz: 30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240) 50Hz: 25fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240)	60Hz: 30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240) 50Hz: 25fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240)	60Hz: 30fps@(1280x720, 704x576, 640x480, 640x360, 320x240), 60Hz: 15fps@(1920x1080) 50Hz: 25fps@(1280x720, 704x576, 640x480, 640x360, 320x240), 50Hz: 15fps@(1920x1080)
	Video Compression	H.265+/H.265(HEVC)/H.264+/H.264/MJPEG		
	Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)		
Image	Privacy Masking	Up to 8 Areas (Mask Area and Mosaic Area are optional)		
	ROI	Up to 8 areas		
	Image Setting	Brightness/Contrast/Saturation/Sharpness		
	Image Enhancement	BLC, HLC, 2D DNR, 3D DNR, AGC, Defog, AWB, Deblur, Anti-flicker, Corridor Mode, LDC		BLC, HLC, 2D DNR, 3D DNR, AGC, Defog, AWB, Deblur, Anti-flicker, Corridor Mode
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		
	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,TLS 1.2		
Audio	Audio Compression	G.711/AAC/G.722/G.726		
	Audio Sampling Rate	8/16/32/44.1/48KHz		
	Audio Bit Rate	16~256kbps		
Intelligent Analytics	Video Analysis	VCA 2.0: Intrusion Detection, Region Entrance, Region Exiting, Advanced Motion Detection, Line Crossing, Loitering, Object Left, Object Removed		
	Attribute Extraction	Simultaneously detect up to 50 targets and capture humans and vehicles in real time. Recognize attributes including Upper and Lower Clothing Color, Hat, and Vehicle Types (Bicycle, Car, Motorcycle, Bus, Truck, E-scooter).		
	Face Detection&Face Attribute Recognition	Detect and capture faces, get real-time snapshots; The attributes include Age, Gender, Glasses, Mask and Cap; Support Faces Privacy Mode, the detected faces in the face detection area will be mosaic automatically.		
	Object Counting & Report	Count the number of objects crossing the line, optionally human and vehicle, Support regional people counting for up to 4 detection areas		
Event	Basic Event	Motion Detection, Tamper Detection, Network Disconnection, External Input, Audio Alarm, etc.		
	Exception	Network Disconnection, IP Address Filtering, Record Failed, SD Card Full, SD Card Uninitialized, SD Card Error, No SD Card, Watermark		
	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, PTZ Motion, HTTP Notification, etc.		
System	Storage	Support microSD/SDHC/SDXC Card Local Storage, up to 1TB		
	SIP/VoIP Support	Yes, Voice & Video-over-IP		
	System Compatibility	ONVIF Profile G & M & S & T, API		

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General	Working Condition	Temperature: -40℃~60℃ / Humidity: 0~95%(Non-condensing)		
	Power Supply	PoE (802.3at) / DC 12V/3A±10%		
	Power Consumption	Min.: 7.1W (DC 12V), 8.6W(PoE) Max.: 15W (DC 12V), 17W(PoE)	Min.: 7.2W (DC 12V), 8.5W(PoE) Max.: 16W (DC 12V), 19W(PoE)	Min.: 7.7W (DC 12V), 9.6W(PoE) Max.: 16.4W (DC 12V), 20.3W(PoE)
	Surge Protection	4KV		
	Dimensions/Weight	Φ183mmX174.8mm/Approx. 2.6Kg		
	Warranty	2 Years / 3 Years (Optional)		
Certifications	EMC	CE-EMC (EN 55032, EN 55035), FCC (PART 15B)		
	Safety	CE-LVD (EN IEC 62368-1)		
	Environment	CE-ROHS (Directive (EU) 2015/863 amending 2011/65/EU)		
	Protection	IP66, IK10		

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



Camera	Model	MS-C5371-X12PE (5MP)
	Image Sensor	1/2.8" Progressive Scan CMOS
	Min. Illumination	Color: 0.008Lux@F1.6 B/W: 0Lux with IR on
	WDR	120dB Super WDR
	Shutter Time	1/100000s~1s
	DORI Distance	D: 110~1330m O: 43~522m R: 21.5~261m I: 11~131m
	Digital Zoom	16X
	Day/Night Mode	Day/Night/Auto/Customize/Schedule
	S/N	>55dB
Lens	Focal Length	5.3~64mm, 12X Optical Zoom
	Zoom Speed	Approx 4s (Wide-Tele)
	Field of View	H57°~H4.8°/D69°~D5.7°/V44°~V2.8°
	Focus Control	Auto/Semi-Auto/Manual
	Minimum Working Distance	1000/1500mm(Wide/Tele)
	Aperture	F1.6~F2.8
	Iris Control	Auto
PTZ	Pan Range / Pan Speed	360° endless; Pan Manual Speed: 0.1°~350°/s, Pan Preset Speed: 350°/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	2592x1944
	Primary Stream	60Hz: 30fps@(2592x1944, 2592x1520), 45fps@(2048x1536), 60fps@(1920x1080, 1280x960, 1280x720) 50Hz: 25fps@(2592x1944, 2592x1520), 45fps@(2048x1536), 50fps@(1920x1080, 1280x960, 1280x720)
	Secondary Stream	60Hz: 30fps@(704x576, 640x480, 640x360, 352x288, 320x240) 50Hz: 25fps@(704x576, 640x480, 640x360, 352x288, 320x240)
	Tertiary Stream	60Hz: 30fps@(2048x1536, 1920x1080, 1600x1200, 1280x720, 704x576, 640x480, 640x360, 320x240) 50Hz: 25fps@(2048x1536, 1920x1080, 1600x1200, 1280x720, 704x576, 640x480, 640x360, 320x240)
	Video Compression	H.265*/H.265(HEVC)/H.264*/H.264/MJPEG
	Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)
Image	Privacy Masking	Up to 8 Areas (Mask Area and Mosaic Area are optional)
	ROI	Up to 8 areas

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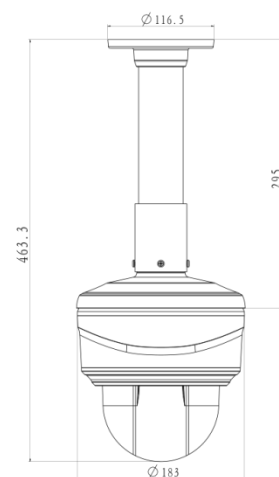
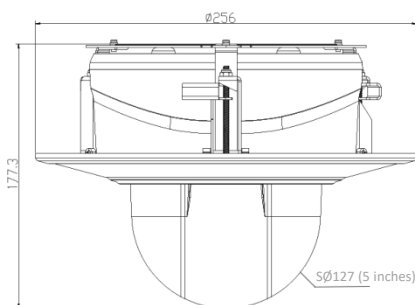
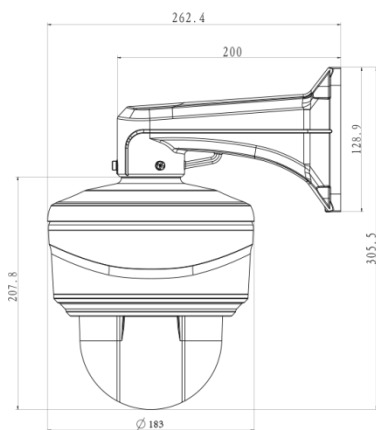
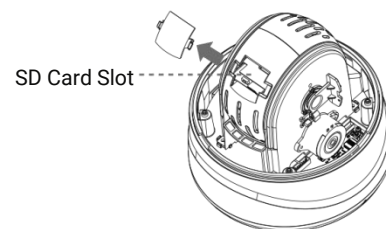
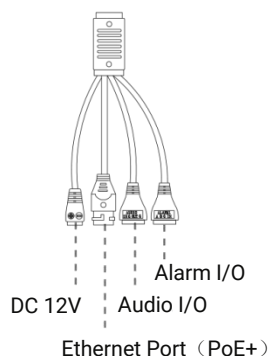
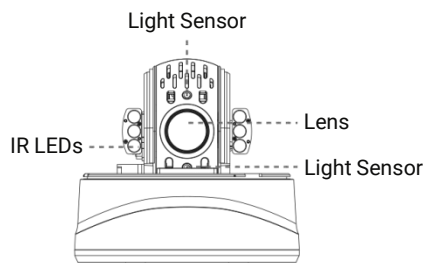


Image	Image Setting	Brightness/Contrast/Saturation/Sharpness
	Image Enhancement	BLC, HLC, 2D DNR, 3D DNR, AGC, Defog, AWB, Deblur, Anti-flicker, Corridor Mode, LDC
Interface	Ethernet	1*RJ45 10M/100M Ethernet Port
	Audio I/O	1/1
	Alarm I/O	1/1
Network	Network Storage	NAS(Support NFS, SMB/CIFS), ANR
	Protocol	IPv4/IPv6, ARP, TCP, UDP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP, ICMP, SSL,TLS 1.2
Audio	Audio Compression	G.711/AAC/G.722/G.726
	Audio Sampling Rate	8/16/32/44.1/48KHz
	Audio Bit Rate	16~256kbps
Intelligent Analytics	Video Analysis	VCA 2.0: Intrusion Detection, Region Entrance, Region Exiting, Advanced Motion Detection, Line Crossing, Loitering, Object Left, Object Removed
	Attribute Extraction	Simultaneously detect up to 50 targets and capture humans and vehicles in real time. Recognize attributes including Upper and Lower Clothing Color, Hat, and Vehicle Types (Bicycle, Car, Motorcycle, Bus, Truck, E-scooter).
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	Exception	Network Disconnection, IP Address Filtering, Record Failed, SD Card Full, SD Card Uninitialized, SD Card Error, No SD Card, Watermark
	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, PTZ Motion, HTTP Notification, etc.
System	Storage	Support microSD/SDHC/SDXC Card Local Storage, up to 1TB
	SIP/VoIP Support	Yes, Voice & Video-over-IP
	System Compatibility	ONVIF Profile G & M & S & T, API
General	Working Condition	Temperature: -40℃~60℃ / Humidity: 0~95%(Non-condensing)
	Power Supply	PoE (802.3at) / DC 12V/3A±10%
	Power Consumption	Min.: 7.6W (DC 12V), 9.3W(PoE) Max.: 15.5W (DC 12V), 17.3W(PoE)
	Surge Protection	4KV
	Dimensions/Weight	Φ183mmX174.8mm/Approx. 2.6Kg
	Warranty	2 Years / 3 Years (Optional)
Certifications	EMC	CE-EMC (EN 55032, EN 55035), FCC (PART 15B)
	Safety	CE-LVD (EN IEC 62368-1)
	Environment	CE-ROHS (Directive (EU) 2015/863 amending 2011/65/EU)
	Protection	IP66, IK10

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



Structure Diagrams



Accessories Support

A02 V2 Pole Mount

Weight: 1kg

Dimensions: 180*136*46mm



A03 External Corner Bracket

Weight: 900g

Dimensions: 170*152.5*76.3mm



A42-L Extension Lever

Weight: 330g

Dimensions: Ø55*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: Ø256*94mm



A79 Pendant Mount

Weight: 850g

Dimensions: Ø185*295mm



AC-71 Smoked Dome Cover

Weight: 120g

Dimension: Ø136.8*92.5mm



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