



Network

Dome

# XND-8093RV

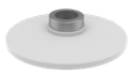
6MP AI IR Dome Camera



## Key Features

- 6MP resolution
- 10.9~29mm (2.7x) motorized varifocal
- Color: 0.06 Lux (F1.7, 1/30sec, 30IRE), 0 Lux (IR LED on)
- Maximum 30fps (H.265/H.264)
- WiseIR: IR viewable length 70m(229.66ft)
- Day & Night (ICR), extremeWDR (120 dB)
- Hard-coated dome bubble
- WiseNR II (Based on AI engine), WiseStreamIII (Based on AI engine)
- Analytics events based on AI engine (NPU) : Object detection (Person/Face/Vehicle - car, truck, bus, bicycle, motorcycle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion)
- Analytics events : Defocus detection, Motion detection, Tampering, Fog detection
- Audio detection, Sound classification, Shock detection, Appear/Disappear
- IP52, IK10

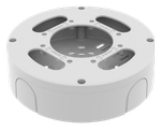
## Compatible Devices



SBP-167HMW



SBP-160HMW1



SBV-180BW



SBV-180WW



SBP-150CMI



SBP-300CMI



SBP-300CMW1



SBP-900CMW



SBP-300CMTW



SBP-300CMTS



SBP-300WMW



SBP-300WMW1



SBP-390WMW2



SBP-160WMW1

## XND-8093RV

6MP AI IR Dome Camera



### Specifications

Video		
Imaging Device	Size	1/1.8"
	Type	CMOS
Resolution		3328x1872, 3072x1728, 2688x1520, 2592x1944, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@6MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.06
	BW(1/30sec, 30IRE)	0.006
Video Out		CVBS: 1.0 Vp-p / 75Ω composite for installation. USB: Micro USB Type B
Lens		
Focal Length (mm)		10.9~29
Zoom Ratio	Optical	2.7x
Max Aperture Ratio (F number)	Wide	1.7
	Tele	1.73
Angular Field of View	Horizontal	42°~15°
	Vertical	23°~8°
	Diagonal	49°~17°
Min. Object Distance		Wide: 2.5m(8.20ft), Tele: 6m(19.69ft)
Focus Control		Simple focus, Manual
Lens Type		Adaptive P iris(IR corrected)
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	Pan	0°~360°
	Tilt	0°~85°
	Rotate	0°~355°
Operational		
Day & Night		Auto(ICR)

## Operational

<b>Backlight Compensation</b>		BLC, HLC, WDR, SSSDR
<b>Wide Dynamic Range (dB)</b>		120
<b>Digital Noise Reduction</b>		WiseNR II (Based on AI engine), SSNR V
<b>Digital Image Stabilization</b>		Support(built-in gyro sensor)
<b>Defog</b>		Support
<b>Motion Detection</b>	Quantity	8ea
	Shape	8point Polygonal zones
<b>Privacy Masking</b>	Quantity	32ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic
<b>Gain Control</b>		Off, Max gain, Manual
<b>White Balance</b>		ATW, NarrowATW, AWC, Manual, Indoor, Outdoor
<b>LDC</b>		Support(Fill/stretch mode)
<b>Electronic Shutter</b>	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/12,000sec
<b>Video Rotation</b>		Flip, Mirror, Hallway view(90°/270°)
<b>Alarm Interface</b>	In/Out	2 configurable I/O ports
	Others	12VDC output
<b>Alarm Triggers</b>		Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription
<b>Alarm Events When Alarm Trigger Occurred</b>		File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication
<b>Audio In</b>		Selectable(mic in/line in), Built-in mic
<b>Audio Out</b>		Line out
<b>Light Type</b>		IR LED
<b>Light Viewable Length</b>	IR	WiseIR 70m(229.66ft)
<b>IR Wavelength</b>		850nm

## Analytics

<b>Classified Object Type</b>		Person, Face, Vehicle, License plate
<b>Attributes</b>	Vehicle	Type(car, bus, truck, motorcycle, bicycle)
<b>Thumbnail</b>		DetectionShot
<b>Analytics Events</b>	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection
	Normal	Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)

## Analytics

<b>Business Intelligence</b>	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting
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## Network

<b>Ethernet</b>		Metal shielded RJ-45(10/100/1000BASE-T)
<b>Video Compression</b>		H.265/H.264: Main/Baseline/High, MJPEG
<b>Audio Compression</b>		G.711 u-law /G.726 selectable,G.726(ADPCM) 8kHz,G.711 8kHz, G.726: 16kbps,24kbps,32kbps,40kbps, AAC-LC: 48kbps at 16kHz
<b>Smart Codec</b>		Manual, WiseStreamIII
<b>Bitrate Control</b>		H.265/H.264: CBR or VBR, MJPEG: VBR
<b>Streaming</b>	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 10 profiles
<b>Protocol</b>		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT
<b>Application Programming Interface</b>	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
<b>Direct Cloud Connection</b>		Support

## Security

<b>OS / Firmware Protect</b>		Encrypted firmware, Secure boot, Signed firmware
<b>User authentication</b>		Digest authentication, Prevent brute-force attack
<b>Network authentication</b>		IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
<b>Secure Communication</b>		HTTPS, WSS(WebSocket Secure), SRTP
<b>Access Control</b>		IP-based access control
<b>Data Protect</b>		Encryption credentials, Encrypt compress for live recording file export
<b>Audit</b>		Access / System / Event Log management
<b>Device ID</b>		Device certificate(Hanwha Vision Root CA)
<b>Secure Storage</b>		TPM(Trusted platform module), HTPM(Hanwha Trusted Platform Module), SDcard partition encrypt(AES-256)
<b>Security Certificate</b>		TPM 2.0 with FIPS 140-2 level2

## General

<b>Memory</b>	RAM	4GB
	Flash	512MB
<b>Edge Storage</b>	Micro SD/SDHC/SDXC	Max. 512GB x 2slot(Total 1TB)
<b>Edge Storage(OnCloud)</b>	Micro SD/SDHC/SDXC	Max. 1TB x 2slots (Total 2TB) *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.

## Environmental & Electrical

Operating Condition	Temperature	-25°C~+50°C(-13°F~+122°F)
	Humidity	0~100% RH(condensing)
	Others	Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE	Max. 22.5W, typical 17.9W
	12VDC	Max. 20W, typical 15.6W
Power Redundance Failover		Support

## Mechanical

Color	White
Material	Aluminum
RAL Code	RAL9003
Product Dimensions	ø160x125mm(6.30x4.92")
Product Weight	1,600g(3.53lb)
Compatible Conduit Hole	12.7mm(1/2")(M20)
Compatible Gang Box	Single, Double, 4" Octagon, Square

## Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
Environment	IEC/EN 63000, IEC 60529 IP52, IEC 62262 IK10

## DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	173.4m(568.88ft)
	Tele	505.6m(1,658.71ft)
Observe (63PPM/ 19PPF)	Wide	69.4m(227.55ft)
	Tele	202.2m(663.48ft)
Recognize (125PPM/ 38PPF)	Wide	34.7m(113.78ft)
	Tele	101.1m(331.74ft)
Identify (250PPM/ 76PPF)	Wide	17.3m(56.89ft)
	Tele	50.6m(165.87ft)

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**CAD**

Unit: mm [inch]

