

Network

PNM-9022V

8MP Panoramic Camera

Key Features

- Max. 2MP x 4CH
- 209° Mode, 180° Mode support
- 2.8mm fixed focal lens x 4
- H.265/H.264 : Max. 30fps
- MJPEG : Max. 30fps
- extreme WDR (120dB)
- H.265, H.264, MJPEG codec, WiseStreamII supported
- Digital PTZ Support (2CH)
- Tampering, Heatmap
- IP66, IK10, NEMA4X

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8MP Panoramic Camera



Specifications

Video

Imaging Device	Size	1/2.8"
	Type	CMOS
Resolution		4608x1800, 4096x1800, 4032x1576, 3584x1576, 3456x1352, 3072x1352, 2864x1124, 2560x1124, 2304x900, 2048x900, 1728x676, 1536x676, 1152x452, 1024x452, 720x576, 560x224, 512x224
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.1
	BW(1/30sec, 30IRE)	0.01
Video Out		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focal Length (mm)		2.8
Max Aperture Ratio (F number)	Wide	1.6
Angular Field of View	Horizontal	209°
	Vertical	83.3°
Min. Object Distance		1.5m(4.92ft)
Focus Control		Fixed

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Pan	0°~355°
	Tilt	0°~60°

Operational

Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR
Wide Dynamic Range (dB)	120
Digital Noise Reduction	SSNR V
Defog	Support

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Operational

Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker
	Speed Range	2~1/12,000sec
Digital PTZ		Support
Video Rotation		Flip, Mirror
Alarm Interface	In/Out	2 configurable I/O ports
Alarm Triggers		Analytics, Network disconnect, Alarm input
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output
Audio In		Selectable(mic in/line in)
Audio Out		Line out

Analytics

Analytics Events	Normal	Defocus detection, Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual area(Appear/Disappear), Virtual line(Crossing, Direction)
Business Intelligence	Normal	Heatmap

Network

Ethernet		Metal shielded RJ-45(10/100BASE-T)
Video Compression		H.265/H.264: Main/Baseline/High, MJPEG
Audio Compression		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
Smart Codec		Manual, WiseStream II
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 10 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast), PIM-SM

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Network

Application Programming Interface	ONVIF	S, G, T
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection		Optional (needs gateway)

Security

User authentication	Digest authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP)
Secure Communication	HTTPS
Access Control	IP-based access control
Data Protect	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Vision Root CA)
Secure Storage	SDcard partition encrypt(AES-256)

General

Memory	RAM	4GB
	Flash	512MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 512GB x 2slot(Total 1TB)

Environmental & Electrical

Operating Condition	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~95% RH(non-condensing)
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. 18W, typical 10.4W
	12VDC	Max. 16W, typical 9W

Mechanical

Color	White
Material	Aluminum
RAL Code	RAL9003
Product Dimensions	ø253x165mm(9.96x6.5")
Product Weight	3,200g(7.05lb)
Compatible Conduit Hole	19.1mm(3/4")(M25)
Compatible Gang Box	Single, Double, 4" Octagon, Square

Certifications & Standards

Environment	IEC 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X

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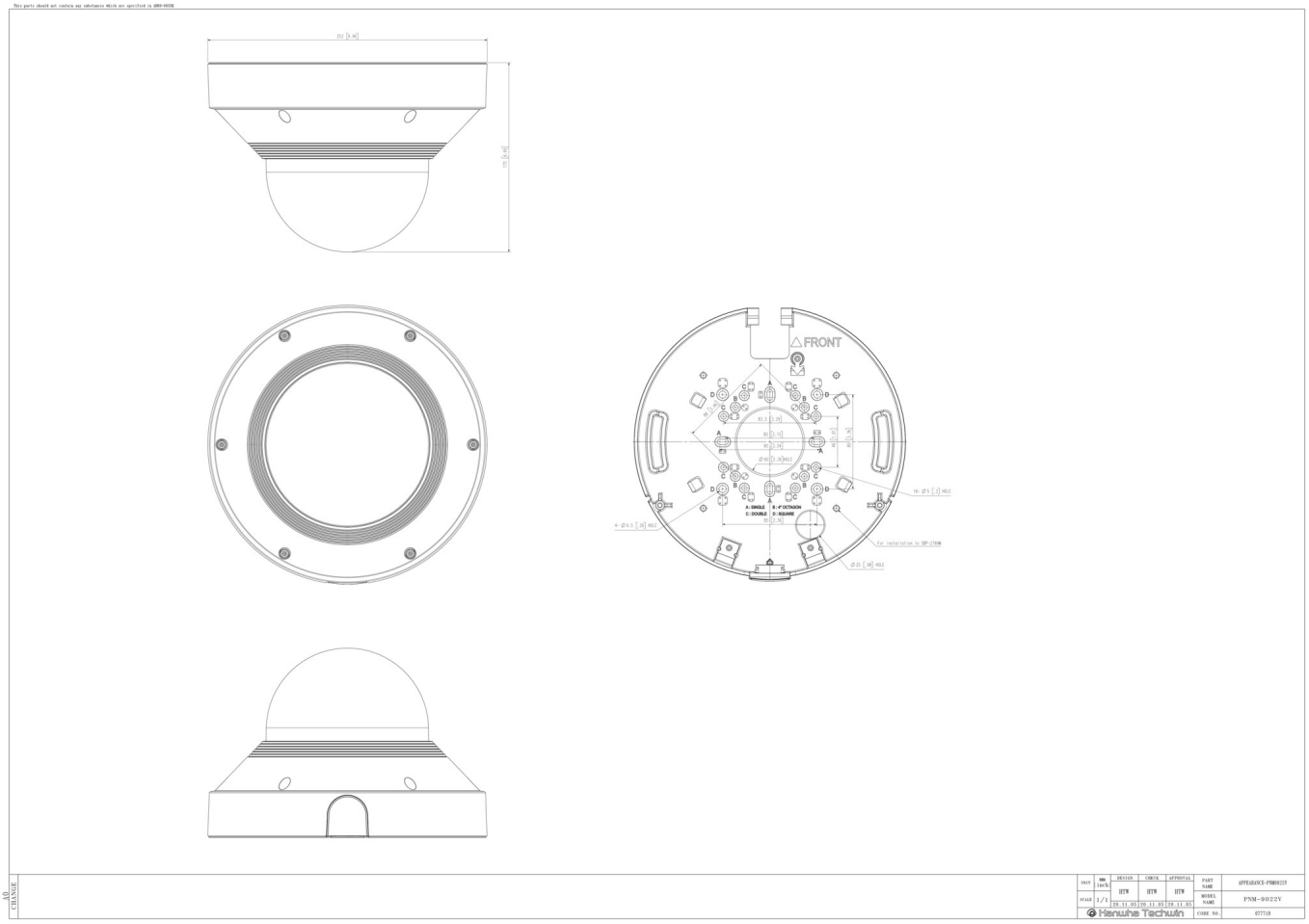
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CAD

Unit: mm [inch]



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