

Network

TNM-P9022EPT3-Z

Explosion-proof Panoramic Camera

Key Features

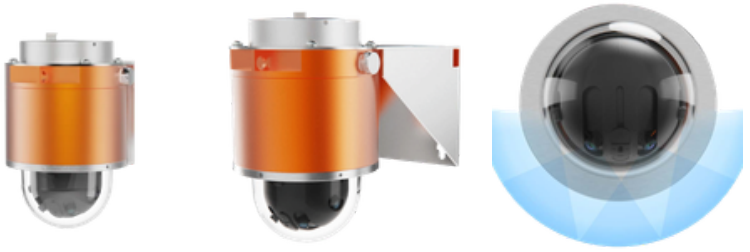
- FM (Factory Mutual Insurance) certified, C1/D1 certification
- Marine-ready Aluminum and Dual patented technology
- PoE+ powered
- 180° and 209° mode switchable
- Extreme WDR (120db)
- Intelligent Video analytics
- Optional mounts required for installation

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

© Hanwha Vision CO., LTD. All rights reserved.

TNM-P9022EPT3-Z

Explosion-proof 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(@8MP Max. 5fps)
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°
Min. Object Distance		1.5m(4.92ft)
Focus Control		Fixed

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Pan	0°~355°
	Tilt	0°~60°
Sequence		Preset(255ea)

Operational

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

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

© Hanwha Vision CO., LTD. All rights reserved.

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
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, Handover: PTZ preset
Audio In		Selectable(mic in/line in)
Audio Out		Line out

Analytics

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

Network

Ethernet		Metal shielded RJ-45(10/100BASE-T)
Video Compression		H.265: Main, 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
Application Programming Interface	ONVIF	S, G, T
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

© Hanwha Vision CO., LTD. All rights reserved.

Network

Direct Cloud Connection	Optional (needs gateway)

Security

User authentication	Digest authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP)
Secure Communication	HTTPS, SRTP
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	-20°C~+55°C(-4°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)
Power Consumption	PoE	Max. 18W, typical 10.4W

Mechanical

Color	Orange
Material	Aluminum
RAL Code	RAL2000-Yellow Orange
Product Dimensions	ø218.44x347.27mm(8.59x13.67")
Product Weight	12,247g [27lbs]

Certifications & Standards

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

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

© Hanwha Vision CO., LTD. All rights reserved.