

#### TKH SECURITY

# PD950

# 5MP intelligent IP outdoor PTZ camera 40x zoom, IR, Wiper

#### DESCRIPTION

The PD950 is a 5-megapixel IP outdoor PTZ camera. A powerful high-grade 40x optical zoom lens ensures sharp and clear images over a wide range. Built-in IR for zero lux operation. The high-speed pan, tilt, and zoom mechanism and auto-focus give instantaneous and stable focused images. Due to its unique servo feedback control the camera will always maintain its original (PT) position. When forced away from its original position the camera will return immediately.

#### FEATURES

1/2.7 inch Progressive scan CMOS imager

Quad stream H.264, H.265 and MJPEG

Max 5MP 30fps, 1080p 60fps

40x optical zoom, 10x digital zoom

20° tilt above horizon without optical distortion

Secured Streaming, IEEE 802.1x authentication

120 dB WDR (HDR)

Built-In Gyro, EIS

PT servo feedback, built-in Wiper

ONVIF Profile S, G, T, M





## Multi-stream high definition

The camera has the capability to stream simultaneous 4 video streams in H.265, H.264 and MJPEG. Multiple combinations of encoding, resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. Each selected resolution-frame rate combination can be freely set to a stream number. Also, the optimized encoding H.265/HEVC streaming provides the clear images with less transmission bandwidth and storage capacity required.

## Open standards

Multiple options are available to easily integrate the PD950 to a video management system. In support of open standards, the PD950 is compliant with a range of VMS's, it supports ONVIF (Profiles S, G, T, M) and the Sigura API.

### PT Servo feedback

The PD950 pan and tilt motors are controlled by servo feedback, keeping track of the PTZ position at all times. No more drifting PTZ head due to shocks, vibration or vandalism. When the head is forced from its position, it will return immediately.

#### Power source choices

The PD950 can be powered with 24 Vac or over the network with PoE++ (802.3bt) sources.



Camera	
Image Sensor	1/2.7" Progressive CMOS
Effective pixels	2720x1976 (5MP)
Minimum scene illumination	Color: 0.05 lux, B/W: 0.005 lux, 0lux with IR illumination on, F1.6
Shutter Speed	1 sec. to 1/10,000 sec.
Lens	40x, 4.3-170mm, Piris, F1.6
Field of view	1.8° to 64.5° horizontal, 1.4° to 48.6° vertical
Focus Control	Autofocus
Slow Shutter	Supported
Day/Night	Automatic IR-cut Filter
РТZ	
Pan range	360° Continuous rotation
Tilt range	-20° to +90°
Tilt travel	-20° to +200° (Mechanical Flip)
Number of presets	256
Pan speed	0.1 ~ 200°/s
Tilt speed	0.1 ~ 200°/s
Preset accuracy	0.16°
Functions	Sequence Scan, Cruise Scan, Auto pan, Image Freeze, sets new pan 0°,
	Speed by Zoom, Azimuth
Smart Tracking	Manual, event, schedule, Auto-tracking
Video	
Video Compression	H.265 (Main Profile) / H.264 (High Profile/Main Profile) / MJPEG
Max. Resolution	2688x1944 30fps(WDR Pro on), 1920x1080 60fps (WDR Pro off)
Supported Resolution	2688x1944 (5MP), 2560x1920 (5MP), 1920x1080, 1280x1024, 1280x720,
	1360x768, 800x600, 640x360, 480x272
Frame Rate	25/30fps, 50/60fps
Number of simultaneous streams	
	Quad streams
Max. Streaming	
30fps (dual shutter WDR)	Quad streams
30fps (dual shutter WDR) Bitrate Control	Quad streams 2688x1944:1280x720
Max. Streaming 30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output	Quad streams 2688x1944:1280x720 Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate
30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output	Quad streams 2688x1944:1280x720 Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate Up to 10 (RTSP)
30fps (dual shutter WDR) Bitrate Control Number of video output streams	Quad streams   2688x1944:1280x720   Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate   Up to 10 (RTSP)   1 Vp-p; 2-pin to BNC patch cable (For test/installation only)
30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output Region of interest Image	Quad streams   2688x1944:1280x720   Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate   Up to 10 (RTSP)   1 Vp-p; 2-pin to BNC patch cable (For test/installation only)
30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output Region of interest	Quad streams 2688x1944:1280x720 Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate Up to 10 (RTSP) 1 Vp-p; 2-pin to BNC patch cable (For test/installation only) Support 120dB
30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output Region of interest Image Wide dynamic range White Balance	Quad streams   2688x1944:1280x720   Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate   Up to 10 (RTSP)   1 Vp-p; 2-pin to BNC patch cable (For test/installation only)   Support   120dB   Auto (normal, wide, all), Smart, One push, Smart Touch, Manual
30fps (dual shutter WDR) Bitrate Control Number of video output streams Video output Region of interest Image Wide dynamic range	Quad streams 2688x1944:1280x720 Constant bit rate (CBR), variable bit rate (VBR), Smart bitrate Up to 10 (RTSP) 1 Vp-p; 2-pin to BNC patch cable (For test/installation only) Support 120dB

# Specs



Image	
SNR	>52dB
Day/Night Switch	Auto/Scheduled/Triggered by Alarm In
Image Enhancement	2DNR, 3DNR, ColorNR
Image Stabilization	Gyro, support
Digital Zoom	10x
Image Rotation	90°, 180°, 270° rotation
privacy masks	16x, Color & Mosaic
Text and picture overlay	Date & time, 3x line (54 characters each), Preset title, Image,
	Image transparency, Text string, Zoom ratio, Compass and Azimuth
Analytics	
Smart Analytics	Abandoned Object, Intrusion Detection, Camera Sabotage
	Wrong Direction, Loitering Detection, Object Counting
	Object Removal, Stopped Vehicle, Face Detection
	Face Recognition, License Plate Recognition
	Person detection and auto tracking
Event detections	External Input, Periodical Event, Tampering, Audio Detection, Manual Trigger,
	Recording Notification
Event Action	Alarm output, Record video clip to NAS/SD card, Send alarm message and image
	by E-mail/FTP, Send HTTP notification
Audio	
Capability	Two-way stereo audio
Audio Interface	1x 3.5 mm audio in (line in) ; 1x 3.5 mm audio out interface
Compression	G.711, G.726, AAC, LPCM
Data	
Serial port	RS485
Protocols	Pelco-D, Pelco-P, Diamond protocol
Alarma	
Alarm	A
Input	4x 2x
Output Operational modes	Cell-based motion detection, Network Failure Detection, Tampering alarm, Alarm I/O
Network	
Communication Interface	10/100/1000 Mb (RJ45)
Network protocols	IPv4/IPv6, HTTP, HTTPS (TLS1.2), 802.1x, Qos, FTP, SMTP(SSL), UPnP,
	SNMP(v1/v2/v3/Traps), DNS, DDNS, NTP, RTSP, RTCP, RTP/UDP, TCP/IP, IGMP(v2/v3)
	DHCP, PPPoE, SSL/TLS, Pelco D (TCP/UDP), Diamond (TCP/UDP), NTCIP (TCP/UDP),
	ONVIF Profile S/G/T/M, Siqura Protocol
Security	User authentication, Syslog(SSL/TLS), Digest authentication (RTSP, HTTP), HTTPS
	encryption (TLS1.2); IEEE 802.1x port-based network access control, IP filtering,

# Specs



#### Network

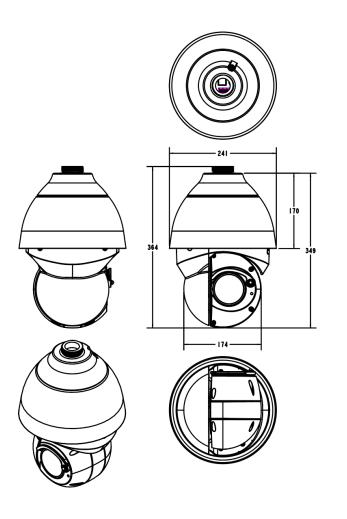
Network	
	Brute attack protection
Web Viewer	Internet Explorer 11, Microsoft Edge, Google Chrome, Mozilla Firefox
General	
Protection Level	IK10, IP66
Material	Aluminum alloy(ABS) and Plastic
Edge Storage	Built-in micro SD/SDHC/SDXC slot, up to 512 GB
Power	24 VAC +/- 10%; PoE++ (IEEE 802.3bt type 3 class 6)
Power Consumption	Max. 51W (PoE), Max 78W (24VAC)
	Heater: 10W
	Lamps: 18W (PoE), 20W (24VAC)
	Wiper: 1W
IR illumination	200 meters, 850nm IR LEDs
Wiper	Built-in
Overvoltage protection	Lightning Protection, Surge Protection and Voltage Transient Protection
Ambient temperature (NEMA TS-2)	-40 °C to +74 °C (-40 °F to +165 °F)
Relative humidity	5 to 100%
MTBF (@40°C)	>130,000 h
Vibration (NEMA TS-2)	5 to 30 Hz, 0.5 g during 1 h. (x, y, and z)
Shock (NEMA TS-2)	10 g (x, y, and z)
Max wind velocity	225 km/h (150 mph)
Dimensions(camera body)	diameter241x349 mm with Sunshield
Weight	6.1 kg
Colour	RAL 9003 (Signal white)
Ordering Information	
PD950	5MP intelligent IP outdoor PTZ camera 40x zoom, IR, Wiper
WM27	Wall mount, for PD9x0
CM27	Ceiling mount 25cm for PD9x0
CM27A	Extension 25cm for CM27
WM12	Wall mount for PD110x and PD9x0 PTZ dome series
WM12B	Wall mount incl. junction box for PD110x and PD9x0 series
WM16	Gooseneck bracket for PD110x and PD9x0 PTZ dome series
WM17	Corner mount for PD110x and PD9x0 PTZ dome series
WM17B	Corner mount incl. junction box for PD110x and PD9x0 series
PM06	Pole mount, for PD9x0-series, 1100-series
PM07	Pole mount for PD110x and PD9x0 PTZ dome series
PM07B	Pole mount incl. junction box for PD110x and PD9x0 series
PM08	Parapet wall mount for PD110x and PD9x0 PTZ dome series
PTM02	Bracket adapter for PD9x0 series
CM11	Ceiling mount for PD110x and PD9x0 PTZ dome series
CM12	Ceiling mount for PD110x and PD9x0 PTZ dome series, 50 cm
CM15	Ceiling mount for PD110x and PD9x0 PTZ dome series, 25 cm

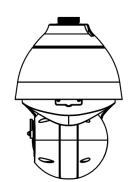


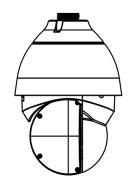
Ordering Information











#### RELATED





**TKH Security WM27** Wall mount, for PD9x0



TKH Security PM01 Pole mount, for WM01A, WM27



TKH Security WM05 Corner mount, for WM01A, WM27



Junction box, for WM01A, WM27

**TKH Security CM27** Ceiling mount 25cm for PD9x0

**TKH Security CM27A** Extension 25cm for CM27

TKH Security JB27

TKH Security CTA02 Cable tail adapter for PD950, PD980 (Preliminary)