

# FW9709-KNR

8MP IR Speed Dome

FW9709-KNR is a high quality Laser and IR PTZ IP camera which is equipped with 8.41MP Progressive Scan CMOS image Sensor. With the highest sensitivity sensor, it is especially superior in low light condition. As it supports simultaneous H.265, H.264 and MJPEG Video Compression, less network bandwidth and storage space required. It also delivers high quality video image at 30fps@8M in progressive mode.

## Key Features

- Backdoor Issue free
- Sony 1/1.8" 8.41MP PS CMOS sensor
- Optical 18x zoom, Digital 32x zoom
- 4 steps zoom proportional IR LED working up to 400m
- Quadruple Stream H.265, H.264, M-JPEG, JPEG
- Max. 30fps @ 8MP
- Built-in FAN/HEATER
- OnVIF Profile S standard
- AI function (optional)
- Auto tracking (optional)
- WIPER (optional)



WIPER (Option)

## Tech Notes

### Intelligent Varifocal IR LED control: IR PTZ

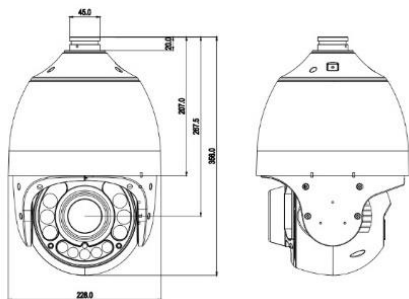
The IR beam automatically adapts becoming wider or narrower as the camera zooms in or out.

### Text OSD

User can set 9 set of text strings to display direction of the camera or location of the camera. Each string can be extended up to 24 alphanumeric characters. When PTZ moves to the pre-set PAN angle up to 8, it automatically displays the text string set on the PAN angle like "to Las Vegas" or "-> Los Angeles"

## FW9709-KNR

## Technical Specifications



Camera	
Image Sensor	1/1.8" Sony 8.41MP CMOS
Lens	Optical 18x (Digital 32x) f=6.8~120.0mm (F1.6~F4.1) FOV(H) : 58.5° ~ 3.7°
Day & Night	True Day & Night (ICR)
Min. Illumination	Color 1/30s : 0.2 lux, B&W 1/30s : 0.05 lux Color DSS on : 0.02 lux, B&W : 0.005 lux
IR illumination	400m, 13ea. 850nm IR hi-power LED
Pan Tilt Zoom	Pan : 360° Endless Tilt : 0° ~ 90° Optical Zoom 30x, Digital Zoom 32x 255 Presets, 8 Group, 8 Tour, 8 Swing, Auto flip, Auto parking, Power-up action. Text display by 9 Pan angles.
Video Stream	
System	Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  (optional: 64bit RISC-V Quad Core up to 594MHz, NOR Flash 512 Mb / LPDDR3 4Gb)
Compression	H.265, H.264, M-JPEG, JPEG
Video Stream	Quadruple Streaming
Resolution	3840x2160, 2560x1440, 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240
Max. Frame rate	Max. 30fps/25fps @ 8MP
Bit Rate Control	VBR/AVBR/CBR/ACBR, GOP
Video Setting	
Exposure Control Mode	Auto/ Manual/ Shutter Priority/ Iris Priority
Focus Control	Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger
Electronic Shutter	1/6~1/30,000s
Exposure Compensation	-12dB ~ +12dB
Slow Shutter	Off / On
AGC	0 ~ 10
Back Light Mode	BLC, HLC, WDR, ACE
Day-Night Mode	Auto/ Day/ Night
White Balance	Auto/ Indoor/ Outdoor/ OnePush/ Manual
Digital Noise Reduction	Off/ Auto/ Low/ Mid/ High
Image Adjustment	HLC, Stabilizer, Gamma
Text OSD	9 lines, settable size, color, position, etc.
Smart Video	ROI (Region of Interest) 8 areas

Privacy Masking	8 Areas
Analytics	
Motion Detection	4 areas
Object Detection (optional)	Deep learning based AI Person, Bicycle, Motorcycle, Car, Truck, Bus, Face detection
Video Analytic (optional)	Intrusion Detection, Line Crossing, Object Counting, Object Tracking, Tampering, Auto Tracking
Network	
Security	IP Filtering, HTTPS, Encrypted & Basic Authentication, Management White List
Supported Protocols	HTTP, RTP/RTSP (Uni/Multicast), TCP/IP (v4/v6), UDP, FTP, Telnet, HTTPS, RARP, SNMP (option), DHCP, NTP, SMTP client, uPnP, ZeroConf
DDNS	www.ipcctvdns.com
Interface	RJ45 Ethernet 10/100Mbps
Cybersecurity	
Asymmetric Encryption Algorithm	RSA 2048 bits
Digital Signature Algorithm	RSA 2048 bits
Symmetric Encryption Algorithm	AES-128, AES-256
Cryptographic Hash Functions	SHA-256, MD5
Token Authentication Code	SHA-256, MD5
Key Exchange Protocols	RSA Key Exchange
Certificate	X.509
System Integration	
Application Programing Interface	SDK, ONVIF Profile S
Event Condition	Motion detection, audio detection, external digital input, external input data, SD card error
Event Action	Pre-alarm & Post-alarm buffer Image upload: FTP (periodic, buffer) Notification: email, HTTP, TCP, UDP External digital output
Peripheral & Auxiliary I/O	
Onboard Recording	MicroSD card slot
Audio	Line in, line out Audio compression: G.711-ulaw, Sampling rate 8KHz, 16bit, Mono Audio streaming: 2-way
External alarm	4 digital input, 2 digital output (NO/NC)
Serial interface	1 RS485
Video out	CVBS (SD analog)
Software	
Web Browser	IE, Chrome, Edge
Mobile Viewer	iOS, Android
CMS	Smart Multi Viewer and Player
NVR	SmartNVR (up to 9 channels free license)
Device manager	IP Installer
General	
Case/ Color	Metal
Power Supply	AC to AC Adapter, Output : AC24V / 3A

	PoE : 60W (optional)
Power Consumption	Max. 42W
Operating Environment	-35°C ~ +60°C, 10% ~ 90% RH
Dimension	228Φ x 356(H)mm
Weight	About 6,000g without Bracket & Adapter
Protection	IP66, IK10
Certifications	KC, CE, FCC, RoHS
Included Accessories	AC adapter 24V/3A, waterproof RJ45 connector cap, hexagon key L-wrench

Note :

- \* Specifications are subject to change without notice for product improvement.
- \* AI capabilities may not perform perfectly all the time because their performance can be affected by the environment and the content they are trained on.
- \* IR illumination's range is dependent on the scene.