



QVP9021PZ



H.265



PoE



IP66



Smart IR



WDR



Starvis



Product Features

- ▲ 1/2.8" 2MP CMOS
- ▲ True WDR
- ▲ STARVIS
- ▲ Powerful 20× optical zoom
- ▲ Max. 25/30fps @2M
- ▲ Support PoE
- ▲ Smart IR with distance to 150m
- ▲ IP66

FEATURES

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, and substantially improved video quality at the same bit rate, compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and different coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

Smart IR (2.0)

The product updates its IR lighting sub-system to Smart IR 2.0. The Infrared illumination lens adopts new freedom surface design pattern, and improves the uniformity of illumination above 0.5, compared to 0.3 of the older TIR fashion. And the new hardware is able to accurately adjust the IR LED driving current, step by step. Mixing the auto-exposure algorithm and IR LED control algorithm together makes the IR brightness control self-adaptive and no more over-exposed for most conditions.

Smart TM 1.0 (Thermal Management)

The camera has built-in temperature sensor, high-efficient turbofan, as well as high power heater. The system uses PID control algorithm to adjust the turbofan's speed and heater's power to make the camera working in a suitable temperature chamber.

Superior Image Quality

The product adopts high MTF 20x zoom lens and Sony latest STARVIS image sensor so that it can capture vivid color image at low light conditions, avoid Smear for very bright objects, such as street road lamp, car's bright lamp, and output high-quality image. Besides, when WDR is selected, the camera will combine long exposure frame and short exposure frame into one frame-the so called physical WDR (true WDR).

Working Environment and Interoperability

This product is rated for use in temperatures from -30 °C to +55 °C, under 90% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating, makes it work well outdoor. The special design eyebrow upon the lens window, which could reduce the lens temperature and avoid the image flare when the sun direct glare the camera lens. This product allows for 4KV lightning rating, which provides effective protection against lightning. The camera conforms to the ONVIF specifications, ensuring interoperability between network video products regardless of manufacturer.

SPECIFICATION

Camera Module

Image Sensor	1 / 2.8 "progressive scan CMOS
Gain	Auto/Manual
S/N ratio	More than 50dB
Shutter Time	50Hz: 1 / 1 s ~ 1 / 25, 000 s; 60Hz: 1 / 1 s ~ 1 / 30, 000 s
Min. Illumination	Color: 0.006 lux @F1.6, AGC ON B/W: 0.003lux @F1.6, AGC ON 0 lux with IR
White Balance	Auto/Manual/ATW (Auto-tracking WB)/Indoor/Outdoor/Fluorescent Lamp/Sodium Lamp
Day&Night	IR Cut Filter
Privacy Mask	4 programmable privacy masks
Focus Mode	Auto/Manual
WDR	True WDR, 2 frames in one

IR

IR Distance	150m
Smart IR	Support
Aperture Range	F1.6 (Wide) to F3.5 (TELE)

Smart Features

Basic Event	Motion Detection, Video Tampering Detection, Exception
Smart Event	Object Removal Detection, Intrusion Detection, Line Crossing Detection, People Intrusion and People Counting
Smart Record	ANR (Automatic Network Replenishment)

Image

Max. Resolution	1920×1080
Main Stream	50Hz:25fps(1920 1080, 1280 720) 60Hz:30fps(1920×1080, 1280×720)
Sub Stream	50Hz:25fps(1280×720, D1, CIF) 60Hz:30fps(1280×720, D1, CIF)
Third Stream	50Hz:25fps(D1,480×240, CIF) 60Hz:30fps(D1, 480×240, CIF)
Image Enhancement	WDR/HLC/BLC/3D DNR/Defog

Network

Network Storage	Built-in micro SD card slot, up to 128GB
Protocols	HTTP, HTTPS, IPv4/IPv6, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, UDP, IGMP, ICMP, DHCP, PPPoE
API	ONVIF, support QSee API and third-party management platform
Simultaneous Live View	Up to 6 channels
Security Measures	User authentication (ID and PW), Host authentication (MAC address); HTTPS encryption, IEEE802.1x port-based network access control; IP address filtering
Client	QT VIEW2.0 client
Web Browser	IE8-11, Chrome 31.0 to 44, Firefox 30.0 to 51

Lens	
Focal Length	5.5-110mm, 20x optical zoom
Zoom Speed	Approx. 3.5s (optical lens, Wide-TELE)
Aperture Range	F1.6 (Wide) to F3.5 (TELE)
Field of View	Horizontal field of view: 52.01 to 1.78 (Wide-TELE) Vertical field of view: 29.30° to 3.15° (Wide-TELE) Diagonal field of view: 59.79° to 3.62° (Wide-TELE)
Working Distance	Wide:1.0m~INF Tele: 1.5m~INF

Compression Standard	
Video Compression	H.265+ / H.265 / H.264+ / H.264/ MJPEG
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
Video Bit Rate	128Kbps ~ 6Mbps
SVC	Support

PTZ	
Pan Range	360 endless
Pan Speed	Configurable, from 0.1°/s to 80°/s; Preset speed: 80°/s
Tilt Range	From -5 to 90 (auto-flip)
Tilt Speed	Configurable, from 0.1°/s to 80°/s; Preset speed: 80°/s
Proportional Zoom	Support
Preset	360
Cruise	8 cruises, up to 16 presets for each cruises
Track	4 tracks, record time over 3 minutes for each track
Power-off Memory	Support
Action Mode	Preset/Cruise/Track/Auto Scan/Random Scan
3D Positioning	Support
PTZ Position Display	Support
Scheduled Task	Preset/Cruise/Track/Random Scan/Boundary Scanning/Dome Reboot

Interface	
Network Interface	1 RJ45 10M/100M Ethernet, PoE (802.3at)

General	
Material	ADC12, PC, PC+10%GF
Power	DC12V and PoE (802.3at, class 4); Max.15W(heater : Off); Max.20W(heater : On)
Working Environment	-30 C 55 C(-22 F~131 F), ≤ 90% RH
Protection Level	IP 66 Standard, TVS4000V Lightning Protection, Surge Protection and Voltage Transient Protection
Dimensions	Φ 173mm × 247mm (6.8" Φ × 9.7")
Weight	Approx. 2.1KG (4.63lb)