

# ULTRA HIGH DEFINITION 8MP IP LASER PTZ CAMERA

**VP-NC9778P-AZ37IR9T1**  
IR Night Vision High Speed PTZ Dome Camera



## FEATURES

Ultra high definition 8MP (3840×2160) resolution

1/1.8" progressive scan CMOS Sensor

Inbuilt 2D/3D DNR, HLC, HDR, BLC & Defog functions

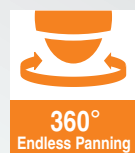
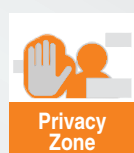
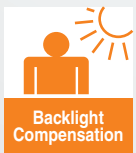
Support H.265+/H.265/H.264+/H.264, MJPEG video compression

37x Optical zoom

360° endless panning

Inbuilt IR LEDs for 800 mtrs light distance

IP67 Weather proof outdoor enclosure



# TECHNICAL SPECIFICATIONS

## VP-NC9778P-AZ37IR9T1

|                           |                          |   |                      |                   |                     |
|---------------------------|--------------------------|---|----------------------|-------------------|---------------------|
| Camera                    | SOC                      | NT98529,2x4Gb LPDDR3, 4GB Flash(emmc)   |                      |                   |                     |
|                           | Image sensor             | 1/1.8" progressive CMOS (SONY IMX678)   |                      |                   |                     |
|                           | Signal System            | PAL/NTSC  |                      |                   |                     |
|                           | Effective Pixels         | 3840x2160   |                      |                   |                     |
|                           | Minimum Illumination     | Color:0.001 Lux @ (F1.2,AGC ON);B/W:0.0002 Lux @ (F1.2, AGC ON). 0Lux with IR   |                      |                   |                     |
|                           | Electronic Shutter Speed | 1/1 s - 1/30,000s, support slow shutter   |                      |                   |                     |
|                           | Signal to Noise          | > 52 dB   |                      |                   |                     |
|                           | Gain Control             | Auto / Manual   |                      |                   |                     |
|                           | White Balance            | Auto/Manual//Indoor/Outdoor   |                      |                   |                     |
|                           | Iris control             | Auto/Manual   |                      |                   |                     |
| Lens                      | Lens Type                | 6mm to 222mm  |                      |                   |                     |
|                           | Field of View            | Horizontal: 59° ~1.98° (wide-tele),Vertical: 34.14° ~ 1.12° (wide-tele), Diagonal: 67.08° ~ 2.27° (wide-tele)   |                      |                   |                     |
|                           | Zoom Speed               | Approx. 5.2s (optical zoom, wide-tele) ±5%  |                      |                   |                     |
|                           | Zoom                     | 37x Optical Zoom  |                      |                   |                     |
|                           | Focus Control            | Auto, Manual (Near/Far)   |                      |                   |                     |
|                           | Aperture Range           | F1.2~F4.6(wide-tele)  |                      |                   |                     |
|                           | Iris Type                | P-IRIS, 6 slices Diaphragm  |                      |                   |                     |
| Dori                      | Focus length             | f=6mm   | f=222mm              | f=6mm             | f=222mm             |
|                           | Detect                   | 95.3m(312.7f.t.)  | 2,960m(8126.6f.t.)   | 138.2m(453.4f.t.) | 4,293m(14,084f.t.)  |
|                           | Observe                  | 124m (129.7 f.t.)   | 1,429m (3250.7 f.t.) | 54.8m(217.5 f.t.) | 1,706m (5,589 f.t.) |
|                           | Recognize                | 19.06m(62.5 f.t.)   | 592m(1625.3f.t.)     | 27.6m(90.6 f.t.)  | 858.6m(2,817f.t.)   |
|                           | Identify                 | 7.9m (31.3 f.t.)  | 296m (812.7 f.t.)    | 13.8m(31.3 f.t.)  | 429.3m(1,408f.t.)   |
| Compression               | Video Compression        | Mainstream: H.265+/H.265/H.264+/H.264<br>Sub-stream: H.265/H.264/MJPEG<br>Third stream: H.265/H.264/MJPEG   |                      |                   |                     |
|                           | H.264 Standard           | H.264/AVC codec BP/MP/HP, Level 5.1   |                      |                   |                     |
|                           | H.265 Standard           | H.265/HEVC codec MP, level 5.0  |                      |                   |                     |
|                           | Video Bit Rate           | 32 Kbps to 16Mbps   |                      |                   |                     |
|                           | Audio Compression        | G.711 A/U   |                      |                   |                     |
|                           | Audio Bit Rate           | 64K bps   |                      |                   |                     |
| Resolution and Frame Rate | Max. Resolution          | 3840x2160   |                      |                   |                     |
|                           | Main Stream              | 50Hz/25fps:3840x2160,2560x1440,1920x1080,1280x960,1280x720<br>60Hz/30fps:3840x2160,2560x1440,1920x1080,1280x960,1280x720  |                      |                   |                     |
|                           | Sub Stream               | 50Hz/25fps:704 × 576, 640 × 480, 352 × 288.<br>60Hz/30fps :704× 480, 640 × 480, 352 × 240   |                      |                   |                     |
|                           | Third Stream             | 50Hz/25fps :1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288.<br>60Hz/30fps :1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240 |                      |                   |                     |
| Day/Night Functionality   | Day & Night              | True Day & Night with ICR   |                      |                   |                     |
|                           | IR Cut                   | Switchable 3 filters: IR-Cut filter, IR Only filter, Near IR pass filter  |                      |                   |                     |
|                           | Illuminator type         | Continuous zoom illuminator with VSCEL Laser  |                      |                   |                     |
|                           | Light distance           | 800 Mtrs  |                      |                   |                     |
| Pan-Tilt                  | Pan Angle                | 360° endless pan rotation   |                      |                   |                     |
|                           | Pan Speed                | Configurable, from 0.1~180°/s; Preset speed: 240°/s   |                      |                   |                     |
|                           | Tilt Range               | From -25° to 155°, auto flip at 90°   |                      |                   |                     |
|                           | Tilt Speed               | Configurable, from 0.1°~150°/s, Preset speed: 180°/s  |                      |                   |                     |
|                           | Presets                  | 360   |                      |                   |                     |
|                           | Proportional Zoom        | Supported   |                      |                   |                     |
|                           | Cruise                   | 8 cruises, up to 16 presets for each cruise   |                      |                   |                     |
|                           | Trace                    | 4 traces, record time over 3 minutes for each trace   |                      |                   |                     |
|                           | Power-off Memory         | Supported   |                      |                   |                     |

|                             |                            |  |
|-----------------------------|----------------------------|--|
|                             | PTZ position display       | Supported  |
|                             | 3D Positioning             | Supported  |
|                             | Scheduled Task             | Preset/Cruise/Trace/Random Scan/Boundary Scanning /Dome reboot   |
|                             | Action mode                | Preset/Cruise/Trace/Auto Scan/Random Scan  |
| Operational Features        | Digital Zoom               | 8X   |
|                             | Privacy Mask               | 4 areas per scene  |
|                             | Picture overlay            | Logo picture could be overlaid on video, 16x16,24x24,32x32,48x48, 64x64,96x96,128x128 pixels   |
|                             | Image Enhancement          | BLC, HLC, HDR  |
|                             | Day & Night Control        | Auto Mode (ambient brightness threshold and delay time adjustable), manual mode, scheduled-switch, timer   |
|                             | Noise Reduction            | 2D/3D DNR, auto/manual   |
|                             | Optical Defog              | Built-in optical defog filter  |
|                             | OSD Overlay                | Max 15 characters/line, 8 lines, white or red font color, text such as week, date, time  |
|                             | Codec Streaming Capability | Triple streaming   |
|                             | Image Settings             | Saturation, brightness, contrast, sharpness, AGC, AWB, etc. adjusted by client   |
|                             | Security                   | User authentication (ID and PW), Host authentication (MAC address); HTTPS encryption, IEEE802.1x port-based network access control; IP address filtering           |
|                             | Onboard Storage            | One Micro SD slot and chamber, up to 256G  |
|                             | Alarm Linkage              | Alarm actions, such as preset, cruise, trace, memory card video record, trigger recording, notify surveillance center, upload to FTP/memory card, send email, etc. |
|                             | Basic Event                | Motion detection, video tampering alarm, alarm input, alarm output, exception ((Network disconnected, IP conflict, SD full, SD error)                              |
| Network & Remote Monitoring | Protocols                  | HTTP, HTTPS, IPv4/IPv6, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP,TCP/IP, UDP, DHCP, PPPoE, P2P, RTMP                                    |
|                             | System Compatibility       | ONVIF G/S/T  |
|                             | CMS                        | Full function CMS ( Central monitoring software)   |
|                             | User / Host                | Up to 16 users, 3 levels: Administrator, Advanced User and Normal User   |
|                             | Mobile Client Application  | Supports android and iOS APP for Smart phone and tablets   |
|                             | Bandwidth control          | VBR (Automatic) and CBR (Manual) supported   |
|                             | Web Browser                | IE8-11 with plug-in; Edge, Chrome, Firefox with plugin free  |
| Interface                   | Ethernet                   | 1 RJ45 10M/100M Adaptive Ethernet  |
|                             | Audio Input / Output       | 1CH audio input, 2 to 2.4v[p-p] 1KΩ ±10%; 1CH audio output (line out), impedance: 600Ω   |
|                             | Alarm input                | 7CH alarm input (Dry contact)  |
|                             | Alarm Output               | 2CH  |
|                             | RS485                      | Half-duplex, Pelco-P/D   |
|                             | Reset button               | Supported  |
| Smart Analytics             | Smart Detection            | Line crossing detection, region entrance detection, object removal detection, intrusion detection, region exiting detection, audio exception detection             |
|                             | Smart Tracking             | Manual/Auto-tracking of human/no-motor vehicle/motorized vehicle(ver5.1.1); Pickup someone to track(ver5.1.3)  |
|                             | Face Capture               | Detecting multiple faces in the same scene. Support detecting, capturing, grading, and output the best   |
|                             | Face Comparison            | (Default off) Yes  |
|                             | Perimeter Protection       | Line crossing, Intrusion, Region entrance, Region exiting. Support alarm triggering by specified type  |
|                             | Road Traffic               | Support vehicle detection and tracking(ver5.1.1).ANPR recognition, vehicles models, colors, etc. (ver5.1.3)  |

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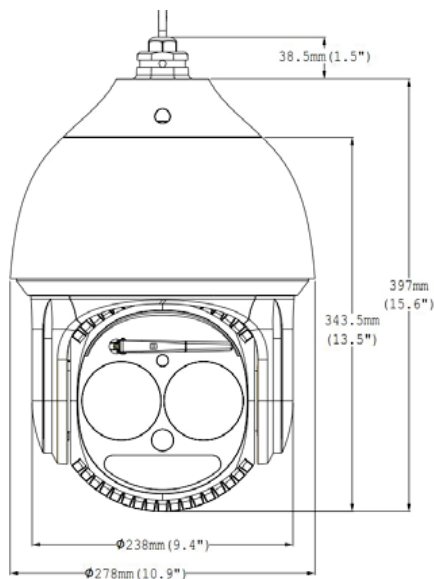
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|               |                       |   |
|---------------|-----------------------|---|
| Electrical    | Power Requirement     | 24VAC±15%5000mA; 36VDC±20%3000mA; High Power PoE ( IEEE 802.3bt,90Watt)                                     |
|               | Power Consumption     | 36W, max 72Watt (PTZ working + IR ON + Heater on)   |
|               | Electric Fan & Heater | Built-in electric fan for heat sink and glass Frost/Fog removal.<br>Built-in electric heater for cold start |
|               | Water Removal         | Electric wipe for water-drops, dust, mud, ice, frost. Time-schedule/manual                                  |
|               | Demist                | Active electric heating and air loop  |
| Environmental | Enclosure             | IP67, TVS 6,000V Lightning Protection, Surge Protection and Voltage Transient Protection                    |
|               | Impact Protection     | IK10  |
|               | Working Temperature   | -40°C~70°C(-48°F ~ 158°F) IR off; -40°C~50°C, IR on; Cold start>=-40°C (0.5~1.5 hour waiting); 90%RH        |
|               | Storage Temperature   | -40°C to +70°C  |
|               | Operating Humidity    | ≤ 95% RH  |
| Mechanical    | Material              | Aluminum Alloy  |
|               | Dimensions            | Φ 278mm × 435mm   |
|               | Weight                | Approx. 8.8KG   |
| Certification | Certification         | UL, CE, FCC,RoHS  |

\*Exact products and specifications shown may vary by geographic region and are subject to change without notice. Product image, weights and measurements are approximate and may vary due to customized solutions & products being offered as per customer requirements.

## DIMENSIONS

Unit: mm



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