

IPND-P2040X-IRW1

2MP 40x Zoom IR PTZ Network Camera



Camera Specifications

Image Sensor	1/2.8" Progressive CMOS
Maximum Resolution	1920x1080 (2MP)
Lens Type	40x Optical Zoom Auto Focus
Focal Length	4.25~170mm
Aperture	F1.6~4.95
Iris Type	DC-Iris
Field of View	65.7° ~ 1.9° (Horizontal) 39.4° ~ 1.1° (Vertical) 73.0° ~2.1° (Diagonal)
Shutter Speed	1 sec. to 1/100,000 sec.
WDR	WDR Pro
Day / Night	Yes
Removable IR-Cut Filter	Yes

Camera Specifications (cont'd)

Illuminators	8x LEDs - Up to 250 meters with Smart IR
Minimum Illumination	0.04 Lux @ F1.6 (Color) 0.005 Lux @ F1.6 (B/W) 0 lux with IR illumination on
Pan Speed	0.05° ~ 450°/sec
Pan Range	360° endless
Tilt Speed	0.05° ~ 450°/sec
Tilt Range	-20° ~ +90° Effective tilt coverage 220° via auto flip
Presets	256 preset locations 128 presets per tour
Pan / Tilt / Zoom	32x digital zoom (4x on IE plug-in, 8x built-in) Auto Pan mode Auto Patrol mode Mechanical Auto flip
Storage	MicroSD up to 1TB capacity NAS (network attached storage)
Remote Control	Remote focus, remote zoom

Video Specifications	
Compression	H265, H264, MJPEG
Maximum Frame Rate	30 fps @ 1920x1080 (WDR on) 60 fps @ 1920x1080 (WDR off)
Number of Streams	3 video streams (Up to 8 configurable profiles)
Signal to Noise Ratio	60 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control, Smart Stream III
Image Settings	General settings video settings, video orientation (flip, mirror), day/night settings Overlay settings Illuminators illuminators, anti-overexposure Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM, EIS(built-in gyro sensor), scene mode (auto) Exposure exposure strategy (measurement window, metering mode) exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR Focus zoom, focus Privacy mask Pixel calculator Scheduled profile settings

Audio Specifications	
Audio Capability	Two-Way Audio (full duplex)
Audio Compression	MPEG-2 AAC-LC, G.711, G.726
Audio Interface	External line input External line output
Network Specifications	
Users	Live streaming for up to 10 users / devices
Security	Access list, Account block, Audit log, Configurable password strength protection, CSRF protection, Digest authentication, HTTPS, IEEE 802.1x, Secure boot, Session timeout, Signed firmware, User access log, User account management
Protocols	802.1X, ARP, Bonjour, CIFS/SMB, DDNS, DHCP, DNS, FTP/SFTP, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2/1.3, UDP, UPnP
Interface	10Base-T/100Base-TX Ethernet (RJ-45)
Onvif	Profile G, S, T supported

AI Analytic Specifications

Processing Capability

Custom SoC with built-in hardware learning accelerator

Object DetectionPeople, Vehicle (4-wheeled, 2-wheeled), Human / Vehicle
Best shot, Path Extraction

Vision Object Analytics

Attribute Extraction

People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color)

Human face Best shot, Re-Search Extraction

IC Secure Analytics

Deep Learning VCA (Advanced Smart Tracking)

Smart VCA - Package 1

Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, face detection)

Smart VCA - Package 2

Unattended object detection, Missing object detection

Alarm and Events

Event Triggers

Audio detection*, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), digital input*, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, smart tracking advanced trigger, system boot, preset reached *Requires AO-008 cable

Event Actions

Event notification via audio clip*, camera link, digital output*, email, HTTP, FTP/SFTP, NAS server, SD card, push notification
File upload via email, HTTP, FTP/SFTP, NAS server, SD card
*Requires AO-008 cable

General Information	
Connectors	RJ45 cable connector, Audio line input*, Audio line output*, 48VDC / 24VAC power input, Digital input 2*, Digital output 1*, RS-485 1* Requires AO-008 cable
Indicators	System power and status indicator
Power Interface	24VAC *, 48VDC *, IEEE 802.3 bt Class 6 PoE (Simultaneous Power Redundancy Supported) * Requires AO-008 cable
Power Consumption	24VAC, 48VDC, IEEE 802.3bt Class 6 PoE IR ON: 51W/45W Heater and fan on/off IR OFF: 26W/20W Heater and fan on/off
Dimensions	256 x 336 mm
Weight	7.1 kg
Certifications	EMC CE (EN 55032 Class A, EN55035, EN50121-4), UKCA (BS EN 55032: 2015 +A11: 2020 , BS EN 55035: 2017), FCC (FCC Part 15 Subpart B Class A), IC (ICES-003:2020 Issue 7, Class A), RCM (AS/NZS CISPR 32 Class A) Safety UL (UL 62368-1), CB (IEC/EN 62368-1) Environment IK10, IP66, NEMA 4X
Operating Temperatures	Starting Temperature: -40°C ~ 55°C (-40°F ~ 131°F) Working Temperature: -40°C ~ 60°C (-40°F ~ 140°F) (IR on)
Humidity	98% RH (non-condensing)

System Compatibility	
Operating Systems	Microsoft Windows 11 / 10 / 8 / 7 MacOS 10.12 - 26 (Chrome only)
Web Browsers	Chromium 58.0 or above (Chrome, Edge, Brave) Internet Explorer 10 / 11
3rd Party Video Players	VLC: 1.1.11 or higher
Accessories	
In the box	Wall mount bracket, Screw pack, Screws and anchors, T10 and T25 L-wrench, Waterproof cap, Quick installation guide, Terminal blocks (for DI/DO audio, AC/DC/GND wires, RS485), Ground wire.
DORI (EN 62676-4 Standard)	
Detection (25PPM / 8PPF)	Wide: 61.1 m (200.4 ft) Tele: 2239 m (7345.7 ft)
Observation (63PPM / 19PPF)	Wide: 24.2 m (79.5 ft) Tele: 888.5 m (2914.9 ft)
Recognition (125PPM/ 38PPF)	Wide: 12.2 m (40 ft) Tele: 447.8 m (1469.1 ft)
Identification (250PPM / 76PPF)	Wide: 6.1 m (20 ft) Tele: 223.9 m (734.5 ft)