IPFX-P4032X-IRW2
4MP 32x IR AI PTZ Network Camera

IC REALTIME

- 1/2.8" 4 Megapixel STARVIS™ CMOS
- Powerful 32x optical zoom
- Max. 25/30fps@4M/3M, H.265 Encoding
- iMD 2.0, Perimeter Protection and Auto-tracking
- IR distance up to 492 feet
- IP67, IK10 and Lightning Protection
- 256GB mSD support, DC 24V or PoE+

System Overview

IC Realtime's IPFX-P4032X-IRW2 combines Pan, Tilt and a 4.8 mm–154 mm lens capable of 32x zoom with AI Analytics technology. This 4 Megapixel Starlight camera is equipped IR LEDs capable of 492 feet of Illumination. The PTZ supports improved AI Human/ Vehicle recognition Auto Tracking 2.0 with Perimeter Protection (Tripwire, Intrusion) and features Intelligent Motion Detect 2.0.

Other features include H.265+ encoding, allowing the recorder to save up to half off the storage space compared to traditional H.264. The PTZ also supports 24V DC or PoE+ and is IP67 and IK10 rated, making suitable for rugged outdoor environments.

Functions

iMD 2.0
The AI Machine Learning algorithims in our Intelligent Motion Detection (iMD) recorders & cameras means detection gets more accurate over time. Now, iMD 2.0 provides even better recognition, even fewer false alerts, and it encodes detection metadata in every video frame right from installation. This enables our new Object Search system to quickly locate recorded clips matching your search parameters.

Intelligent Video System (IVS)
With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

Auto-tracking 2.0
Based on the improved AI skillset of iMD 2.0. Autotrack 2.0 includes an interference filtering algorithim to achive military-grade target centered, autofocused telescopic auto tracking. Autotrack 2.0 extends PTZ camera tracking to a new level with much faster camera pan, tilt & zoom tracking speeds, predictive object centering and power zoom framing with improved false alert rejection.

Perimeter Protection
IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

PFA Technology
PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental
The cameras operate in extreme temperature environments, rated for use in temperatures from -40°F ~ +158°F (-40°C ~ 70°C) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection (IP67, IK10)
Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Effective Pixels	2560 (H) × 1440 (V), 4 Megapixels
RAM/ROM	4GB/ 1GB
Scanning System	Progressive
Electronic Shutter Speed	1/1 s–1/30,000 s
Minimum Illumination	Color: 0.005 Lux@F1.35 B/W: 0.0005 Lux@F1.35 0 Lux (IR on)
IR Distance	492.13 ft (150 m)
IR On/Off Control	Auto / Manual
IR LEDs	4
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR

Lens

Focal Length	4.9 mm–154 mm
Max. Aperture	F1.6–F4.0
Angle of View	H: 55.8°–2.4°; V: 31.9°–1.3°
Optical Zoom	32x
Focus Control	Auto/Semi-Auto/Manual
Iris Control	Auto/Manual/Fixed
Close Focus Distance	2.62 ft–16.40 ft (0.8 m–5.0 m)

DORI Distance	Detect	Observe	Recognize	Identify
	6,968ft	2,752ft	1,394ft	695ft

PTZ

Pan/Tilt Range	Pan: 0°–360° endless Tilt: –15° to +90°, auto flip 180°
Manual Control Speed	Pan: 0.1°/s–300°/s, Tilt: 0.1°/s–200°/s
Preset Speed	Pan: 400° /s; Tilt: 300° /s
Presets	300
PTZ Mode	5 Patterns, 8 Tour (up to 32 presets), 5 scan
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	ICR-SD, Pelco-P/D (auto recognition)

Intelligence

Perimeter Protection	Tripwire; Intrusion (Supports vehicle and human detection and Auto Tracking)
Intelligent Motion Detect 2.0	Advanced motion detection alarm for human and vehicle. Works with **AI NVR Object Search**
IVS	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering;
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265; H.264B; H.264M; H.264H; MJPEG (Sub Stream); H.265+; H.264+
Streaming Capability	3 Streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p (1–25/30 fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream 2: 720p (1–25/30 fps)

Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 Kbps–20480 Kbps H.265: 3 Kbps–20480 Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	2DNR/3DNR
Region of Interest	Support
Image Stabilization	Electronic (EIS)
Defog	Support
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; 802.1x; QoS; FTP; UPnP; ICMP; SNMP; SNMP v1/v2c/v3 (MIB-2); IGMP; ARP; RTCP; RTP; PPPoE; RTMP; TCP
Interoperability	ONVIF (Profile S&G&T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 (total bandwidth 64M)
Edge Storage	FTP; Micro SD card (512GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	FCC: Part 15 subpart B

Interface

Video Interface	N/A
Audio Interface	1/1
RS485	N/A
Alarm I/O	2/1

Electrical

Power Supply	DC 24 V/2.5 A ± 25% or PoE+ (802.3at)
Power Consumption	Basic: 13 W, Max.: 22 W (IRs on + PTZ moving)

Environmental

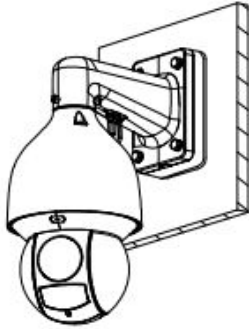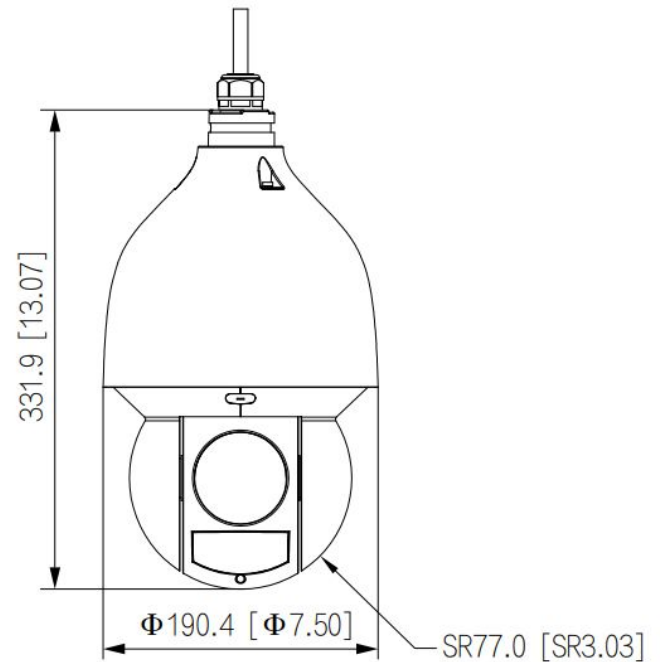|	
Operating Conditions	-40° F ~ +158° F (-40° C ~ +70° C) / Less than 95% RH
Ingress Protection	IP67
Impact Protection	IK10
Lightning Protection	TVS 6000 V lightning proof; surge protection; voltage transient protection

Construction

Casing	Metal
Dimensions	7.48" × 13.07" (190 mm × 332 mm)
Net Weight	10.36 lb (4.7 kg)
Gross Weight	17.64 lb (8 kg)

Accessories

Included Mount

With MNT-CEILING-MPA

Dimensions (mm/in)

331.9 [13.07]

Φ190.4 [Φ7.50]

SR77.0 [SR3.03]

Φ46.8 [Φ1.84]