IPFX-P2030X-IRW1
2MP 30x Starlight IR PTZ Network Camera

IC REALTIME

- 1/2.8" 2Megapixel STARVIS™ CMOS
- Powerful 30x optical zoom
- Starlight technology
- Max. 50/60fps@1080P
- Auto-tracking and IVS
- IR distance up to 200m
- Support PoE+
- IP67, IK10

System Overview

The IPFX-P2030X-IRW1 is a 2 Megapixel camera with IR LEDs capable of 492' of Illumination, 2.8" STARVIS™ CMOS sensor, and 30x optical zoom. The PTZ camera auto recognizes standard protocols over RS-485 such as ICR-SD and Pelco-P/D, without troublesome dip switches or configuration. It supports both H.264 video and MPEG4 audio transmission, simultaneously. This camera can function independent of an NVR. By utilizing H.264 video and MPEG4 audio compression, the highest stream quality is achieved while also maintaining excellent stream compression and bandwidth. The IPFX-P2030X-IRW1 enclosure itself has a strong impact rating, which can guarantee proper operation even under a heavy strike. The IPFX-P2030X-IRW1 also supports analog video output and two-way, bidirectional talk. It can be used in either analog or IP environments.

Functions

Starlight Technology
For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range (WDR)
The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking
Imagine a PTZ that controlled itself - one that moved when objects came within the image, and Panned, Tilted and Zoomed on the target automatically. IVS cameras that support Auto Tracking can have a defined 'home' position (called a scene) where the camera will await an object to enter a specified quadrant.

Smart H.265+
Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265

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°C ~ 70°C (-40°F ~ +158°F) 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
The camera complies with an IK10 vandal resistance rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in).
The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability
The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

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Technical Specification

Camera

Image Sensor	1/2.8" STARVIS CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)
IR Distance	Distance up to 200m (656ft)
IR On/Off Control	Auto / Manual
IR LEDs	6
Wiper	N/A

Lens

Lens Type	4.5mm~135mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 67.8° ~ 2.4°
Optical Zoom	30x
Focus Control	Auto/Manual
Close Focus Distance	100mm~ 1000mm

DORI Distance	Detect	Observe	Recognize	Identify
	1862m	744m	372m	186m
	6109ft	2441ft	1220ft	610ft

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s
Preset Speed	Pan: 300° /s; Tilt: 200° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	ICR-SD, Pelco-P/D (Auto recognition)

Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing Object
Advanced Intelligent Functions	Face Detection, Heat Map

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/720P(1280×720)/ D1(704×576/704×480)/CIF(352×288/352×240
Frame Rate	Main stream: 1080P/1.3M/720P(1~50/60fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)
Bit Rate Control	CBR/VBR

Bit Rate	H.265/H.264: 448K ~ 8192Kbps
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	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711Mu/AAC/G.722/G.726/G.729/ MPEG2-L2

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP,DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G, CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA C22.2,No.60950-1

Interface

Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
Audio Interface	1/1 channel In/Out
RS485	1
Alarm I/O	7/2

Electrical

Power Supply	AC24V/3A(±25%), PoE+(802.3at)
Power Consumption	17W, 25W(IR On, Heater On)

Environmental

Operating Conditions	-40° C ~ +70° C (-40° F ~ +158° F) / Less than 95% RH
Storage Conditions	-40° C ~ +70° C (-40° F ~ +158° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	Φ209mm×337mm (8.22"×13.27")
Net Weight	5.8kg (12.79lb)
Gross Weight	9.1kg (20.06lb)

Accessories

Dimensions (mm/in)