# IPFX-D20V-IRW1

2MP Starlight Dome Network Camera





## System Overview

The IPFX-D20V-IRW1 is a 2MP dome camera featuring our latest generation of 1/3" CMOS sensors. It adopts our vandal proof dome style housing, and includes Starlight support with IR illumination up to ~131ft.

The camera also features a motorized, 2.7mm-13.5mm lens which offers up a 28-109 degree horizontal field of view. The zoom level is fully controllable directly from the camera interface, enabling you to obtain the perfect shot. This makes the camera well suited for exterior applications on commercial as well as residential installations.

## Functions

#### Smart(H.265+ & H.264+)

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

#### 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.

- 2MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 dual-stream encoding
- Outputs 2MP (1920 × 1080)@25/30 fps
- Built-in IR LED, max IR distance: 131ft
- Intelligent detection: Intrusion, tripwire
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 GB Micro SD card
- 12V DC/PoE power support
- IP67, IK10 protection

#### Starlight

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.

#### Intelligent Video Analysis (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 Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

#### Environmental

With a temperature range of -40°C to +60°C (-40°F to +140°F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

# **Technical Specification**

## Camera

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Image Sensor		1/2.8" 2 Megapixel progressive CMOS			
Effective Pixels		1920 (H) × 1080 (V)			
RAM/ROM		128 /128 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s–1/100000 s			
Minimum Illumination		0.002 Lux@F1.5			
IR Distance		40 m (131.23 ft)			
IR On/Off Control		Auto / Manual			
IR LEDs		2			
Lens					
Lens Type		Motorized			
Mount Type		φ14			
Focal Length		2.7mm~13.5mm			
Max. Aperture		F1.5			
Angle of View		Horizontal: 109°–28° Vertical: 57°–16°			
Optical Zoom		5x			
Close Focus Distance		0.8 m–0.8 m (2.62 ft–2.62 ft)			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	144.69 ft	57.74 ft	28.87 ft	14.44 ft
	т	497.70 f	198.82 ft	99.41 ft	49.65 ft
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range		Pan:0° ~355° ;Tilt:0° ~75° ;Rotation:0° ~355°			
Smart Event					

### General IVS

Video	
Compression	H.265; H.264; H.264B; MJPEG
Streaming Capability	2 Streams
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1920 × 1080 (1 fps-25/30 fps)
Frame Rate	Sub Stream: D1 704 × 480 (1 fps-30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–6144 Kbps H.265: 12 Kbps–6144 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120dB)
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto / Manual
Noise Reduction	3D DNR

Tripwire; intrusion

Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Flip	0%90%180%270° (Supports 90%270° with 1080p resolution and lower.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)
Audio	
Compression	G.711a; G.711Mu; G.726; AAC
Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; Bonjour
Interoperability	ONVIF(Profile S/Profile G/Profile T);CGI; P2P
Streaming Method	Unicast / Multicast
Max. User Access	10 Users /20 Users
Edge Storage	NAS Local PC for instant recording Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android
Certifications	
<b>Certifications</b> Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Certifications Interface	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
Certifications Interface Video Interface	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A
Certifications Interface Video Interface Audio Interface	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A 1/1 channel In/Out (RCA)
Certifications Interface Video Interface Audio Interface RS485	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A 1/1 channel In/Out (RCA) N/A 1 channel In: 5mA 5VDC
Certifications Interface Video Interface Audio Interface RS485 Alarm	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A 1/1 channel In/Out (RCA) N/A 1 channel In: 5mA 5VDC
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Certifications Interface Video Interface Audio Interface RS485 Alarm Electrical Power Supply Power Consumption Environmental Operating Conditions Storage Conditions Ingress Protection Construction Casing	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A 1/1 channel In/Out (RCA) N/A 1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC DC12V, PoE (802.3af)(Class 0) <6.4W -30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH -40° C ~ +60° C (-40°F to +140°F) IP67 Metal
Certifications Interface Video Interface Audio Interface RS485 Alarm Electrical Power Supply Power Consumption Environmental Operating Conditions Storage Conditions Ingress Protection Construction Casing Dimensions	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 N/A 1/1 channel In/Out (RCA) N/A 1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC DC12V, PoE (802.3af)(Class 0) <6.4W -30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH -40° C ~ +60° C (-40° F to +140° F) IP67 Metal 122 mm × 88.9 mm (4.80" × 3.50")
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