

IPFX-S20F-W2

2MP Covert Pinhole Starlight Network Camera



- 1/2.8" 2 Megapixel progressive lens
- H.265 & H.264 triple-stream encoding
- 25/30fps@1080P(1920×1080)
- 2.8mm Fixed Pinhole Lens
- Starlight support, 120dB WDR, 3DNR, AWB, AGC, BLC
- IVS Support (Tripwire, Intrusion, Face Detect)
- Micro SD Support (256GB), PoE

System Overview

IC Realtime's IPFX-S20F-W2 is a covert camera with a 2.8mm fixed pinhole lens. This discreet camera utilizes a 1/2.8" 2 Megapixel progressive scan CMOS image sensor capable of 1080p at 25/30fps and is also Starlight supported, allowing strong color reproduction with the least light requirements. The camera also features AI IVS with Perimeter Protection (Tripwire, Intrusion) and Face Detection as well as PoE and Micro SD support up to 256GB.

With an 8 meter cable length and modular design, it can be easily installed into any indoor environment, which makes this camera ideal for applications such as ATMs (Automatic Teller Machines), banks, stores, hotels and offices.

Functions

Wide Dynamic Range(WDR)

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

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.

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.

Interoperability

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

Protection

Supporting $\pm 30\%$ input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

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.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1920(H)x1080(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Minimum Illumination	0.005 Lux@F2.0 (Color,30 IRE) 0.0005 Lux@F2.0 (B/W,30 IRE)
S/N Ratio	> 56 dB
IR Distance	N/A
IR On/Off Control	N/A
IR LEDs	0

Lens

Lens Type	Fixed			
Mount Type	M12			
Focal Length	2.8mm			
Max. Aperture	F2.0			
Angle of View	H:105° ,V:58°			
Optical Zoom	N/A			
Focus Control	Fixed			
Close Focus Distance	1.6ft (0.5 m)			
DORI Distance	Detect	Observe	Recognize	Identify
	138ft	55ft	27ft	13ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	N/A
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Intelligence

IVS	Tripwire, Intrusion, loitering detection, people gathering, and parking detection
Perimeter Protection	Supports human/ vehicle recognition for tripwire, intrusion and fast moving
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face angle filter; optimization time setting 6 attributes:gender, age, glasses, expressions, mask and beard 8 expressions: anger, calm, happiness, sadness, disgust,surprise, confusion and fear 3 snapshot modes:real-time, optimization snapshot, and quality priority
Intelligent Search	Works with supported IC Realtime recorders with Intelligent search

Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
Streaming Capability	3 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 @25/30 fps
	Sub stream: 704 × 576 @25 fps; 704 × 480 @30 fps
	Third stream: 1920 × 1080 @25/30 fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 kbps-20480 kbps H.265: 3 kbps-20480 kbps

Day/Night	Electronic
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/ Custom
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Scene Self-adaptation	Support
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a; G.711Mu; PCM; G.726; G.723
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P
Max. User Access	20 (Total bandwidth: 64 M)
Edge Storage	FTP; SFTP; Micro SD card (Support max. 256 G); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	FCC: FCC Part 15 Subpart B
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Interface

Audio Interface	1/1 channel In/Out (3.5 mm JACK port)
Alarm In	2 channels: 5 mA 3V-5V DC
Alarm Out	2 channels: 1,000 mA 30V DC/500 mA 50V DC

Electrical

Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic: 2.3W (12V DC); 2.8W (PoE) Max. (Intelligence + WDR): 3.7W (12V DC); 4.5W (PoE)

Environmental

Operating Conditions	-40°F to 140°F (-40°C to +60°C)
Storage Conditions	-40°F to 140°F (-40°C to +60°C)
Ingress Protection	N/A
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	Body: 4.33" × 3.27" × 0.94" (110 mm×83mm×24 mm) Lens: 1.20" × 1.92" (30.5 mm × 48.7 mm)
Net Weight	0.5 lb (210 g)
Gross Weight	0.8 lb (376 g)

Dimensions (mm/in)

