

# IPEG-B20F-IRW4

2MP Starlight Bullet Network Camera



- 2MP, 1/2.8" CMOS image sensor
- H.265&H.264 dual-stream encoding
- 2MP (1920 × 1080)@25/30 fps
- DWDR, 3D DNR, HLC, BLC
- 2.8 mm fixed lens, Max. IR LEDs Length 98ft
- Cyber Security, IP67, PoE
- TAA Compliant. Made In South Korea

## System Overview

IC Realtime's new IPEG-B20F-IRW4 is a bullet style camera in the budget friendly Edge lineup. This Korean-built camera is equipped with high end features including H.265 encoding and Starlight support with DWDR for a more colorful image in daylight as well as low illumination environments and Smart IR support with up to 98ft of illumination.

The camera supports H.265 encoding technology, which provides a more efficient video encoding capacity, and saves bandwidth and storage space compared to H.264. In addition, it is TAA compliant, waterproof and dust-proof by complying to IP67 standards.

## Functions

### 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.

### Protection (IP67, wide voltage)

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. Wide voltage: The camera allows  $\pm 30\%$  input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with unstable voltage.

### Interoperability

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

### Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 98ft (30m).

### Environmental

Cameras operate in extreme temperature environments, rated for use in temperatures from  $-40^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ) with 95% humidity.

## Technical Specification

### Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	64MB /16 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.01 lux@F2.0 (Color,30 IRE) 0.001 lux@F2.0 (B/W,30 IRE) 0 lux (Illuminator on)
S/N Ratio	More than 56dB
IR Distance	Distance up to 98.43 ft (30 m)
IR On/Off Control	Auto / Manual
IR LEDs	18

### Lens

Lens Type		Fixed			
Mount Type		M12			
Focal Length		2.8mm			
Max. Aperture		F2.0			
Angle of View		Horizontal: 102°; Vertical: 54			
Optical Zoom		N/A			
Focus Control		Fixed			
Close Focus Distance		1.6 ft (0.5 m)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	126ft	50ft	25ft	12ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–360°Tilt: 0°–90°Rotation: 0°–360°
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### Video

Compression	H.265; H.264; H.264B; MJPEG (Sub stream only)
Streaming Capability	2 Streams
Smart Codec	Smart H.265+; Smart H.264+
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) Sub Stream: 704 × 576 (1 fps-25fps) 704 × 480 (1 fps-30fps)
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 / DWDR
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support

Starlight	Support
Digital Zoom	16x
Flip	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

### Audio

Compression	N/A
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### Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; NTP; Multicast
Cyber Security	Video encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; Generation and importing of X.509 certification; Trusted boot; Trusted upgrade
Interoperability	ONVIF(Profile S); CGI; P2P
Streaming Method	Unicast / Multicast
Max. User Access	6 (Total bandwidth: 36 M)
Edge Storage	FTP
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	FCC: 47 CFR FCC Part 15, Subpart B
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### Interface

Video Interface	N/A
Audio Interface	N/A
RS485	N/A
Alarm	N/A

### Electrical

Power Supply	DC12V, PoE (802.3af)
Power Consumption	Basic: 1.5 W (12 VDC); 2.3 W (PoE) Max. (ICR +H.265+ IR on): 4.3 W (12 VDC); 5.5 W(PoE)

### Environmental

Operating Conditions	-40°F to +140°F (-40°C to +60°C)/less than ≤ 95% RH
Storage Conditions	-40°F to +140°F (-40°C to +60°C)
Ingress Protection	IP67
Vandal Resistance	N/A

### Construction

Casing	Metal + plastic
Dimensions	6.5" × 2.8 (164.6 mm × 71.8 mm)
Net Weight	0.9 lb (0.39 kg)
Gross Weight	1.1 lb (0.50 kg)

## Accessories

## Dimensions (mm/in)

MNT-JUNCTION BOX 3

